

December 7, 1990

Docket No. 50-220

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

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Dear Mr. Sylvia:

SUBJECT: ISSUANCE OF EMERGENCY AMENDMENT FOR NINE MILE 1 (TAC NO. 79149)

The Commission has issued the enclosed Amendment No. 119 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 November 28, 1990 and supplemented on December 4, 1990.

This amendment revises Technical Specification 3.6.2/4.6.2 to permit protective instrumentation channels to be placed in an inoperable status for up to two hours (up to five hours for the High Radiation Main-Steam Line Instrument Channel Calibration) 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 amendment also corrects an editorial error made on page 191 of the Technical Specifications when License Amendment No. 43 was issued on May 13, 1981.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance and Final Determination of No Significant Hazards Consideration and Opportunity for Hearing will be included in the Commission's next regular bi-weekly Federal Register notice.

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. 119 to DPR-63
2. Safety Evaluation

cc: w/enclosures

See next page

PDI-1:LA
CVogan (cc)
12-6-90

PDI-1:PM *DB*
DBrinkman:rsc
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OGC *eth*
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by phone
REGI *DB*
CHehl
12/7/90

DOCUMENT NAME: NMP1 EMER AMEND 79149

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

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Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

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Sincerely,

A handwritten signature in cursive script that reads "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. 119 to DPR-63
2. Safety Evaluation

cc: w/enclosures
See next page

Mr. B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station,
Unit No. 1

cc:

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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. 119
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 November 28, 1990, as supplemented on December 4, 1990, 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:

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PDR ADOCK 05000220
F FDC

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 119, 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



for Edward G. Greenman, Acting Assistant Director
for Region I Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 7, 1990

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

191
192
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196a
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212a
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225a
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232a

Insert Pages

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225a
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232a

Table 3.6.2a

INSTRUMENTATION THAT INITIATES SCRAMLimiting 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 (o)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(1) Manual Scram	2	1			x	x	x
(2) High Reactor Pressure	2	2	≤ 1080 psig		x	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

Table 3.6.2a (cont'd)

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 (o)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(6) Main-Steam-Line Isolation Valve Position	2	4(h)	≤ 10 percent valve closure from full open		(c)	(c)	x
(7) High Radiation Main-Steam-Line	2	2	≤ 5 times normal background at rated power ⁽ⁿ⁾		x	x	x
(8) Shutdown Position of Reactor Mode Switch	2	1	--		(k)	x	x
(9) Neutron Flux (a) IRM (i)	2	3(d)	≤ 96 percent of full scale		(g)	(g)	(g)

Table 3.6.2a (cont'd)

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 (o)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				Shutdown	Refuel	Startup	Run
(ii) Inoperative	2	3(d)	--		x	x	
(b) APRM							
(i) Upscale	2	3(e)	Figure 2.1.1		x	x	x
(ii) Inoperative	2	3(e)	--		x	x	x
(iii) Downscale	2	3(e)	≥ 5 percent of full scale		(g)	(g)	(g)
(10) Turbine Stop Valve Closure	2	4	≤ 10% valve closure				(i)
(11) Generator Load Rejection	2	2	(j)				(i)

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.

Table 3.6.2b

INSTRUMENTATION THAT INITIATES
PRIMARY COOLANT SYSTEM OR CONTAINMENT ISOLATION

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 (f)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
<u>PRIMARY COOLANT ISOLATION</u>							
(Main Steam, Cleanup, and Shutdown)							
(1) Low-Low Reactor Water Level	2	2	≥ 5 inches (Indicator Scale)			x	x
(2) Manual	2	1	- -	x	x	x	x
<u>MAIN-STEAM-LINE ISOLATION</u>							
(3) High Steam Flow Main-Steam Line	2	2	≤ 105 psid			x	x

Table 3.6.2b (cont'd)

INSTRUMENTATION THAT INITIATES
PRIMARY COOLANT SYSTEM OR CONTAINMENT ISOLATION

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 (f)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(4) High Radiation Main Steam Line	2	2	≤ 5 times normal background at rated power ^(*)			x	x
(5) Low Reactor Pressure	2	2	≥ 850 psig				x
(6) Low-Low-Low Condenser Vacuum	2	2	≥ 7 in. mercury vacuum			(a)	x
(7) High Temperature Main Steam Line Tunnel	2	2	≤ 200 F			x	x

Table 3.6.2b (cont'd)

INSTRUMENTATION THAT INITIATES
PRIMARY COOLANT SYSTEM OR CONTAINMENT ISOLATION

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 (f)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
<u>CLEANUP SYSTEM ISOLATION</u>							
(8) High Area Temperature	1	2	≤ 190	x	x	x	x
<u>SHUTDOWN COOLING SYSTEM ISOLATION</u>							
(9) High Area Temperature	1	1	≤ 170	x	x	x	x
<u>CONTAINMENT ISOLATION</u>							
(10) Low-Low Reactor Water	2	2	≥ 5 inches (Indicator Scale)	(c)		x	x

Table 3.6.2b (cont'd)

INSTRUMENTATION THAT INITIATES
PRIMARY COOLANT SYSTEM OR CONTAINMENT ISOLATION

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 (f)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(11) High Drywell Pressure	2	2	≤ 3.5 psig	(c)		(b)	(b)
(12) Manual	2	1	- -	x	x	x	x

NOTES FOR TABLES 3.6.2b and 4.6.2b

- (a) May be bypassed in the refuel and startup positions of the reactor mode switch when reactor pressure is less than 600 psi.
- (b) May be bypassed when necessary for containment inerting.
- (c) May be bypassed in the shutdown mode whenever the reactor coolant system temperature is less than 215°F.
- (d) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2b, the primary sensor will be calibrated and tested once per operating cycle.
- (e) 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.
- (f) 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.

Table 3.6.2c

INSTRUMENTATION THAT INITIATES OR ISOLATES EMERGENCY COOLING

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 (d)</u>	<u>Set-Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
<u>EMERGENCY COOLING INITIATION</u>							
(1) High-Reactor Pressure	2	2	≤ 1080 psig	(b)		x	x
(2) Low-Low Reactor Water Level	2	2	≥ 5 inches (Indicator Scale)	(b)		x	x
<u>EMERGENCY COOLING ISOLATION</u> (for each of two systems)							
(3) High Steam Flow Emergency Cooling System	2	2 (a)	19 psid			x	x

NOTES FOR TABLES 3.6.2c AND 4.6.2c

- (a) Each of two differential pressure switches provide inputs to one instrument channel in each trip system.
- (b) May be bypassed in the cold shutdown condition.
- (c) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2c, the primary sensor will be calibrated and tested once per operating cycle.
- (d) 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.

Table 3.6.2d

INSTRUMENTATION THAT INITIATES CORE SPRAY^(a)

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 (g)</u>	<u>Setpoint</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
<u>START CORE SPRAY PUMPS</u>							
(1) High Drywell Pressure	2	2	≤ 3.5 psig	(d)	x	(a)	(a)
(2) Low-Low Reactor Water Level	2	2 ^(f)	≥ 5 inches (Indicator Scale)	(b)	x	x	x
<u>OPEN CORE SPRAY DISCHARGE VALVES</u>							
(3) Reactor Pressure and either (1) or (2) above.	2	2	≥ 365 psig	x	x	x	x

NOTES FOR TABLES 3.6.2d AND 4.6.2d

- (a) May be bypassed when necessary for containment inerting.
- (b) May be bypassed when necessary for performing major maintenance as specified in Specification 2.1.1.e.
- (c) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2d, the primary sensor will be calibrated and tested once per operating cycle.
- (d) May be bypassed when necessary for integrated leak rate testing.
- (e) The instrumentation that initiates the Core Spray System is not required to be operable, if there is no fuel in the reactor vessel.
- (f) One instrument channel in each trip system may be bypassed in the cold shutdown and refuel conditions during the Spring 1986 refueling outage to perform the emergency condenser piping replacement.
- (g) 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.

Table 3.6.2e

INSTRUMENTATION THAT INITIATES CONTAINMENT SPRAY

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 (c)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(1)a. High Drywell Pressure	2	2	≤ 3.5 psig	(a)		x	x
and							
b. Low-Low Reactor Water Level	2	2	≥ 5 inches (Indicator Scale)	(a)		x	x

NOTES FOR TABLES 3.6.2e AND 4.6.2e

- (a) May be bypassed in the shutdown mode whenever the reactor coolant temperature is less than 215°F.
- (b) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2e, the primary sensor will be calibrated and tested once per operating cycle.
- (c) 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.

Table 3.6.2f

INSTRUMENTATION THAT INITIATES AUTO DEPRESSURIZATION

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 (d)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>	
INITIATION					
(1)a. Low-Low-Low Reactor Water Level	2 (a)	2 (a)	\geq -10 inches * (Indicator Scale)	(b)	(b) x
and					
b. High Drywell Pressure	2 (a)	2 (a)	\leq 3.5 psig	(b)	(b) x

* greater than (\geq) means less negative

NOTES FOR TABLES 3.6.2f AND 4.6.2f

- (a) **Both instrument channels in either trip system are required to be energized to initiate auto depressurization. One trip system is powered from power board 102 and the other trip system from power board 103.**
- (b) **May be bypassed when the reactor pressure is less than 110 psig and the reactor coolant temperature is less than the corresponding saturation temperature.**
- (c) **Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2f, the primary sensor will be calibrated and tested once per operating cycle.**
- (d) **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.**

Table 3.6.2h

VACUUM PUMP ISOLATION

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 (b)</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>		
<hr/>						
<u>MECHANICAL VACUUM PUMP</u>						
High Radiation Main Steam Line	2	2	≤ 5 times normal ^(a) background	x	x	x

NOTES FOR TABLES 3.6.2h and 4.6.2h

- (a) 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.
- (b) A channel may be placed in an operable 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.

Table 3.6.2i

DIESEL GENERATOR INITIATION

Limiting Condition for Operation

<u>Parameter</u>	<u>Total No. of Channels</u>	<u>Channels⁽¹⁾ to Trip</u>	<u>Minimum Channels Operable (c)</u>	Reactor Mode Switch Position in Which Function Must be Operable			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
Loss of Power							
a. 4.16kV PB 102/103 Emergency Bus Undervoltage (Loss of Voltage)	3 per Bus	2 per Bus	2 per Bus	x	x	x	x
b. 4.16kV PB 102/103 Emergency Bus Undervoltage (Degraded Voltage)	3 per Bus	2 per Bus	2 per Bus	x	x	x	x

(1) If one out of three channels becomes inoperable, the inoperable channel will be placed in the trip condition.

Table 4.6.2i

DIESEL GENERATOR INITIATION

Surveillance Requirements

<u>Parameter</u>	<u>Sensor Check</u>	<u>Instrument^(a) Channel Test</u>	<u>Instrument^(b) Channel Calibration</u>
Loss of Power			
a. 4.16kV PB 102/103 Emergency Bus Undervoltage (Loss of Voltage)	NA	Once per month	Once per refueling cycle
b. 4.16kV PB 102/103 Emergency Bus Undervoltage (Degraded Voltage)	NA	Once per month	Once per refueling cycle

(a) The instrument channel test demonstrate the operability of the instrument channel by simulating an undervoltage condition to verify that the tripping logic functions properly.

(b) The instrument channel calibration will demonstrate the operability of the instrument channel by simulating an undervoltage condition to verify that the tripping logic functions properly. In addition, a sensor calibration will be performed to verify the set points listed in Table 3.6.2.i.

(c) 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.

Table 3.6.2k

HIGH PRESSURE COOLANT INJECTION

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 (c)</u>	<u>Set-Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				<u>Shutdown</u>	<u>Refuel</u>	<u>Startup</u>	<u>Run</u>
(1) Low Reactor Water Level	2	2	≥ 53 inches (Indicator Scale)	(a)	(a)	x	
(2) Automatic Turbine Trip	1	1	--	(a)	(a)	x	

NOTES FOR TABLES 3.6.2k AND 4.6.2k

- (a) May be bypassed when the reactor pressure is less than 110 psig and the reactor coolant temperature is less than the corresponding saturation temperature.
- (b) Only the trip circuit will be calibrated and tested at the frequencies specified in Table 4.6.2k, the primary sensor will be calibrated and tested once per operating cycle.
- (c) 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. DPR-63.

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-220

INTRODUCTION

By letter dated November 28, 1990, as supplemented on December 4, 1990, Niagara Mohawk Power Corporation (the licensee) requested a license amendment to revise Technical Specification (TS) 3.6.2/4.6.2. The proposed amendment would permit protective instrumentation to be placed in an inoperable status for up to two hours (up to five hours for the High Radiation Main-Steam Line Instrument Channel Calibration) 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. The December 4, 1990, letter requested that the November 28, 1990, license amendment request be processed on an emergency basis. The licensee's request to process this amendment on an emergency basis was made after the licensee discovered at noon on December 3, 1990, that it was not possible to trip (as required by the TS) the individual channels for two parameters (Low-Low-Low Reactor Water Level and High Drywell Pressure) while attempting to perform required surveillances for these channels. The ability to trip these individual channels also led the licensee to request, and the NRC staff to grant, an oral Temporary Waiver of Compliance (TWOC) on December 3, 1990. The oral TWOC was followed up by a written TWOC on December 4, 1990.

EVALUATION

TS 3.6.2 requires a minimum of two channels of protective instrumentation in each of two Trip Systems to be either operable or tripped. TS 4.6.2 requires periodic surveillance testing of these protective instrumentation channels to demonstrate their operability. Surveillance testing causes the channel being tested to be inoperable during performance of the surveillance tests. Therefore, the channel cannot be relied upon to perform its safety function while being tested. Consequently, the licensee's current operational practices and procedures require the associated Trip System be tripped. Tripping the associated Trip System completes one of the two logic trains for that parameter and leaves the protective instrumentation for that parameter subject to inadvertent actuations (e.g., scrams, isolations, actuations of emergency cooling, etc.) if a spurious trip signal occurs in the other Trip System.

The changes proposed in the licensee's November 28, 1990, submittal obviate the requirement to place a channel's associated Trip System in the tripped condition for up to two hours (up to five hours for the High Radiation Main-Steam Line Instrument Channel Calibration) during the performance of required surveillances, provided at least one operable channel in the same Trip System is monitoring that parameter.

The licensee's evaluation for the proposed changes noted that tripping a channel in addition to making it inoperable during surveillance testing will increase the likelihood of inadvertent trips, scrams, transients, and challenges to safety systems. Moreover, reliance on one remaining operable channel in the same Trip System will not prevent the required protective actions from being initiated if a trip setpoint is exceeded during a surveillance test while a redundant channel is being tested. The allowable out-of-service time intervals (two or five hours) for performance of surveillances are small in comparison to a normal operating cycle so that the impact on the safety function of the affected Trip System is relatively insignificant. Therefore, the staff concludes that not placing a Trip System in the tripped condition for the proposed allowable out-of-service time will have a negligible effect on the reliable operation of the reactor protective system and will decrease the likelihood of inadvertent trips, scrams, transients, and challenges to safety systems. In addition, the proposed changes are consistent with the guidance provided in the NRC's Standard Technical Specifications for General Electric Boiling Water Reactors, NUREG-0213, Revision 3. As a result of the foregoing discussions, the staff finds the proposed amendment to permit protective instrumentation to be placed in an inoperable status for the specified time intervals while performing required surveillances without placing the Trip System in the tripped condition acceptable, provided at least one operable channel in the same Trip System is monitoring that parameter.

The High Radiation Main-Steam Line Instrument Channel Calibration surveillance requirement is more complex and requires a longer time (five hours) to complete than is required for the other protective instrumentation channels and, therefore, five hours is the proposed allowable out-of-service time for this channel. The staff finds this proposed allowable out-of-service time reasonable and acceptable.

The proposed change to page 191 of the Technical Specification would correct an editorial error which was made when License Amendment No. 43 was issued on May 13, 1981, and is, therefore, acceptable.

STATEMENT OF EMERGENCY CIRCUMSTANCES

The emergency situation developed at noon on December 3, 1990, when the licensee was attempting to perform required surveillances of two parameters (Low-Low-Low Reactor Water Level and High Drywell Pressure). At that time, the licensee determined that it was not possible to trip the individual channels for these parameters while performing the surveillances in accordance

with the licensee's recent determination that the TS required the individual channel to be either operable or tripped to satisfy the requirements of TS 3.6.2. The December 3, 1990, attempt to perform the surveillance test of the two affected parameters was the first time the licensee attempted to perform the required surveillance test in accordance with its determination of the applicable TS requirement. As previously noted, a TWOC was issued to permit performance of the required surveillance test in accordance with the proposed amendment. Approximately 26 surveillance test procedures of the subject type are utilized in performing the required surveillance tests of the protective instrumentation. The next surveillance test is required to be completed by December 10, 1990, consequently emergency action is required.

STAFF CONCLUSION

The staff has concluded that the licensee has made a timely amendment application once the problem was analyzed and defined. The staff has determined that if the changes are not granted, the plant's TS require prompt reactor shut down due to failure to demonstrate operability of the protective instrumentation. Therefore, the staff has concluded that the licensee has justified the need for emergency action, and that the changes are necessary and proper. The proposed changes to the TS are, therefore, acceptable.

FINAL NO SIGNIFICANT HAZARDS CONSIDERATION

The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The following evaluation, by the licensee and with which we agree, demonstrates that the proposed amendment does not involve a significant hazards consideration.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated. The inherent redundancy and reliability of the protective instrumentation trip systems assure that the probability of an accident is not significantly increased. In addition, the restrictive time intervals that govern the trip system condition during the surveillance further limits the probability of an accident that would require the actuation of the instrument channel and associated trip system. The requirement that the associated channel within the same trip system be operable assures that the protective instrumentation response will occur such that the consequences of an accident are not different from that previously evaluated.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed changes do not introduce any new operational modes or physical modifications to the plant.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The Technical Specification 4.6.2 surveillance requirements provide verification of the operability of all trip system instrumentation channels. In addition, the channel that monitors the identical parameter within the same trip system must be operable for the relatively short duration that the coincidence change is in effect. This assures that protective instrumentation reliability is maintained. The proposed change provides for a specific time period to perform required surveillances on instrument channels without trips present in associated trip systems. This time allotment tends to enhance the margin of safety by decreasing the probability of unnecessary challenges to safety systems and inadvertent plant transients. Therefore, the proposed amendment will not involve a significant reduction in a margin of safety.

Based on the foregoing, the Commission has concluded that the standards of 10 CFR 50.92 are satisfied. Therefore, the Commission has made a final determination that the proposed amendment does not involve a significant hazards consideration.

STAFF CONSULTATION

The appropriate representative of the State of New York was notified of this amendment. The State of New York had no comments.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of the facility components located within the restricted areas as defined in 10 CFR Part 20. 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 made a final no significant hazards consideration finding with respect to this amendment. Accordingly, this 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 this amendment.

CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) increase the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, the amendment does not involve significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: December 7, 1990

PRINCIPAL CONTRIBUTOR:

D. Brinkman