

February 11, 1991

Docket No. 50-220

DISTRIBUTION:

<u>Docket File</u>	DHagan
NRC/Local PDRS	GHill (4)
PDI-1 Reading	Wanda Jones
SVarga	JCalvo
EGreenman	ACRS (10)
RACapra	GPA/PA
DBrinkman	OC/LFMB
OGC	CVogan
SNewberry	Plant File
JLinville	

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 1 (TAC NO. 79033)

The Commission has issued the enclosed Amendment No. 123 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 6, 1990.

This amendment revises Table 3.6.2c of Technical Specification 3.6.2 and associated Bases to incorporate a revised set point for isolation of the Emergency Cooling System on high steam flow. This revision is necessary to correct an error which was discovered in an equation used to calculate the current set point.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance 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. 123 to DPR-63
2. Safety Evaluation

cc: w/enclosures
See next page

PDI-1:LA
CVogan *cl*
1-21-91

PDI-1:PM *D/S*
DBrinkman:rsc
1/23/91

SICB *hwo*
SNewberry
1/25/91

ESB
OGC
R Bachmann
1/29/91

RAC
PDI-1:D
RACapra
02/11/91

DOCUMENT NAME: NMP1 AMEND 79033

9102150266 910211
PDR ADDCK 05000220
P PDR

140013

DF01
111



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
February 11, 1991

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 1 (TAC NO. 79033)

The Commission has issued the enclosed Amendment No. 123 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 6, 1990.

This amendment revises Table 3.6.2c of Technical Specification 3.6.2 and associated Bases to incorporate a revised set point for isolation of the Emergency Cooling System on high steam flow. This revision is necessary to correct an error which was discovered in an equation used to calculate the current set point.

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

Sincerely,

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. 123 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:

Mr. Mark J. Wetterhahn, Esquire
Bishop, Cook, Purcell & Reynolds
1400 L. Street, N.W.
Washington, D. C. 20005-3502

Mr. Kim Dahlberg
Unit 1 Station Superintendent
Nine Mile Point Nuclear Station
Post Office Box 32
Lycoming, New York 13093

Supervisor
Town of Scriba
R. D. #4
Oswego, New York 13126

Mr. Peter E. Francisco, Licensing
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Mr. Joseph F. Firlit
Vice President - Nuclear Generation
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
Post Office Box 32
Lycoming, New York 13093

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

Resident Inspector
U.S. Nuclear Regulatory Commission
Post Office Box 126
Lycoming, New York 13093

Mr. Paul D. Eddy
State of New York
Department of Public Service
Power Division, System Operations
3 Empire State Plaza
Albany, New York 12223

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

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

Ms. Donna Ross
New York State Energy Office
2 Empire State Plaza
16th Floor
Albany, New York 12223



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. 123
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 6, 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:

9102150275 910211
PDR ADOCK 05000220
P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 123, 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, 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: February 11, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 123 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

205

235

Insert Pages

205

235

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)	≤ 11.5 psid			x	x

BASES FOR 3.6.2 AND 4.6.2 PROTECTIVE INSTRUMENTATION

- a. The set points included in the tables are those used in the transient analysis and the accident analysis. The high flow set point for the main steam line is 105 psi differential. This represents a flow of approximately 4.4×10^6 lb/hr. The high flow set point for the emergency cooling system supply line is ≤ 11.5 psi differential. This represents a flow of approximately 9.8×10^5 lb/hr at rated conditions.

Normal background for the main steam line radiation monitors is defined as the radiation level which exists in the vicinity of main steam lines after 1 hour or more of sustained full rated power. The dose rate at the monitor due to activity from the control rod drop accident of Appendix E or from gross failure of one rod with complete fission product release from the rod would exceed the normal background at the monitor. The automatic initiation signals for the emergency cooling systems have to be sustained for more than 10 seconds to cause opening of the return valves. If the signals last for less than 10 seconds, the emergency cooling system operating will not be automatically initiated.

The high level in the scram discharge volume is provided to assure that there is still sufficient free volume in the discharge system to receive the control rod drives discharge. Following a scram, bypassing is permitted to allow draining of the discharge volume and resetting of the reactor protection system relays. Since all control rods are completely inserted following a scram and since the bypass of this particular scram initiates a control rod block, it is permissible to bypass this scram function. The scram trip associated with the shutdown position of the mode switch can be reset after 10 seconds.

The condenser low vacuum, low-low vacuum and the main steam line isolation valve position signals are bypassed in the startup and refuel positions of the reactor mode switch when the reactor pressure is less than 600 psig. These are bypassed to allow warmup of the main steam lines and a heat sink during startup.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 123 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 6, 1990, Niagara Mohawk Power Corporation (the licensee) submitted a request for revision of the Technical Specifications, Appendix A to Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit No. 1. The proposed change would revise Table 3.6.2c of Technical Specification 3.6.2 and associated Bases to incorporate a revised set point for isolation of the Emergency Cooling System on high steam flow. The licensee stated that the proposed revision was necessary to correct an error which was discovered in an equation used to calculate the current set point.

EVALUATION

The current set point of 19 psid for isolation of the Emergency Cooling System was originally provided by General Electric and was based on design calculations. In November 1988, General Electric issued Revision 2 to its SIL-475. This revision stated that General Electric had discovered an error in an equation used to calculate the 19 psid set point. General Electric suggested that licensees recalculate the set point and confirm the calculation by a system test.

In response to Revision 2 to SIL-475, the licensee determined that the current set point of 19 psid may be non-conservative and that the set point value should be 12.5 psid which corresponds to 300% of normal steam flow. The 300% of normal steam flow value is below the choke flow limit and above normal system start up transients and is a value typically used by General Electric to determine isolation set points in Emergency Cooling Systems.

The licensee performed a test which verified that a set point of 12.5 psid will allow Emergency Cooling System isolation at 300% of normal steam flow without causing inadvertent isolations due to normal system start up transients. This test required the plant to be at normal operating conditions; therefore, the test was delayed until after startup from the extended outage which ended in July 1990.

As noted in the Bases for Technical Specification 3.6.2 (page 237), the set point allowable deviation for this parameter is ± 1 psid; therefore, the specified set point should be ≤ 11.5 psid. The " \leq " notation is provided to ensure that this set point is conservatively adjusted. Use of this notation is consistent with other set points specified in the Technical Specifications. Inadvertent isolations that could occur if the set point was adjusted excessively lower will be avoided by adjusting the set point to near the 11.5 psid value.

Based on the above evaluation, the staff finds the proposed technical specification changes acceptable and they are approved.

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 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 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

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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 11, 1991

PRINCIPAL CONTRIBUTOR:

D. S. Brinkman