



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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

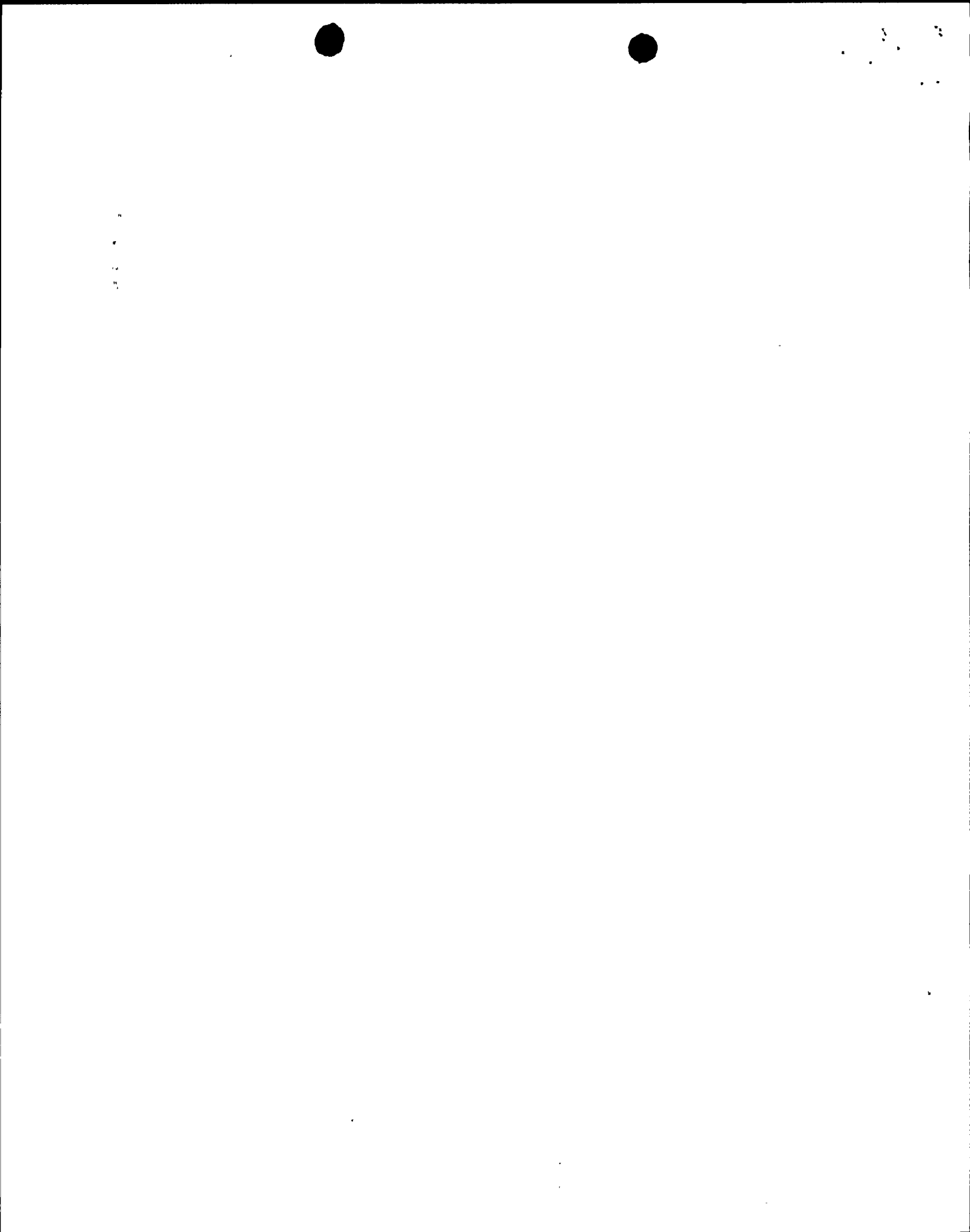
NINE MILE POINT NUCLEAR STATION UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 149  
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 January 6, 1994, 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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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 149, 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 upon completion of the modification which physically removes the automatic reactor scram and main steam line isolation functions of the Main Steam Line Radiation Monitor.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael J. Case, Acting Director  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 9, 1994



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ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 149 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

21  
199  
201  
206  
209  
250

Insert Pages

21  
199  
201  
206  
209  
250



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4  
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## BASES FOR 2.1.2 FUEL CLADDING - LIMITING SAFETY SYSTEM SETTING

- f-g. The low pressure isolation of the main steam lines at 850 psig was provided to give protection against fast reactor depressurization and the resulting rapid cooldown of the vessel. Advantage was taken of the scram feature which occurs when the main steam line isolation valves are closed, to provide for reactor shutdown so that high power operation at low reactor pressure does not occur, thus providing protection for the fuel cladding integrity safety limit. Operation of the reactor at pressures lower than 850 psig requires that the reactor mode switch be in the startup position where protection of the fuel cladding integrity safety limit is provided by the IRM high neutron flux scram. Thus, the combination of main steam line isolation on reactor low pressure and isolation valve closure scram assures the availability of neutron flux scram protection over the entire range of applicability of the fuel cladding integrity safety limit. In addition, the isolation valve closure scram anticipates the pressure and flux transients which occur during normal or inadvertent isolation valve closure. With the scrams set at  $\leq 10\%$  valve closure, there is no increase in neutron flux and peak pressure if the vessel dome is limited to 1141 psig. (8, 9, 10).

The operator will set the pressure trip at greater than or equal to 850 psig and the isolation valve stem position scram setting at less than or equal to 10% of valve stem position from full open. However, the actual pressure set point can be as much as 15.8 psi lower than the indicated 850 psig and the valve position set point can be as much as 2.5% of stem position greater. These allowable deviations are due to instrument error, operator setting error and drift with time.

In addition to the above mentioned Limiting Safety System Setting, the scram dump volume high level scram trip (LCO 3.6.2) serves as a secondary backup to the Limiting Safety System Setting chosen. This high level scram trip assures that scram capability will not be impaired because of insufficient scram dump volume to accommodate the water discharged from the control rod drive hydraulic system as a result of a reactor scram (Section X-C.2.10)\*.

- h. The generator load rejection scram is provided to anticipate the rapid increase in pressure and neutron flux resulting from fast closure of the turbine control valves due to the worst case transient of a load rejection and subsequent failure of the bypass. In fact, analysis (9,10) shows that heat flux does not increase from its initial value at all because of the fast action of the load rejection scram; thus, no significant change in MCPR occurs.
- i. The turbine stop valve closure scram is provided for the same reasons as discussed in h above. With a scram setting of  $\leq 10\%$  valve closure, the resultant transients are nearly the same as for those described in h above; and, thus, adequate margin exists.

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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</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)(o)	≤ 10 percent valve closure from full open		(c)	(c)	x
(7) Deleted							
(8) Shutdown Position of Reactor Mode Switch	2	1	---		(k)	x	x
(9) Neutron Flux (a) IRM (i) Upscale	2	3(d)(o)	≤ 96 percent of full scale		(g)	(g)	(g)



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TABLE 4.6.2a

INSTRUMENTATION THAT INITIATES SCRAMSurveillance Requirement

<u>Parameter</u>	<u>Sensor Check</u>	<u>Instrument Channel Test</u>	<u>Instrument Channel Calibration</u>
(1) Manual Scram	None	Once per week	None
(2) High Reactor Pressure	None	Once per 3 months <sup>(1)</sup>	Once per 3 months <sup>(1)</sup>
(3) High Drywell Pressure	None	Once per 3 months <sup>(1)</sup>	Once per 3 months <sup>(1)</sup>
(4) Low Reactor Water Level	Once/day	Once per 3 months <sup>(1)</sup>	Once per 3 months <sup>(1)</sup>
(5) High Water Level Scram Discharge Volume	None	Once per 3 months	Once per 3 months
(6) Main-Steam-Line Isolation Valve Position	None	Once per 3 months	Once per operating cycle
(7) Deleted			



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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</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>			
				Shutdown	Refuel	Startup	Run
(4) Deleted							
(5) Low Reactor Pressure	2	2(f)	$\geq 850$ psig				x
(6) Low-Low-Low Condenser Vacuum	2	2(f)	$\geq 7$ in. mercury vacuum			(a)	x
(7) High Temperature Main Steam Line Tunnel	2	2(f)	$\leq 200^\circ\text{F}$			x	x



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TABLE 4.6.2b

**INSTRUMENTATION THAT INITIATES  
PRIMARY COOLANT SYSTEM OR CONTAINMENT ISOLATION**

**Surveillance Requirement**

<b><u>Parameter</u></b>	<b><u>Sensor Check</u></b>	<b><u>Instrument Channel Test</u></b>	<b><u>Instrument Channel Calibration</u></b>
<b><u>PRIMARY COOLANT ISOLATION</u></b> (Main Steam, Cleanup and Shutdown)			
(1) Low-Low Reactor Water Level	Once/day	Once per 3 months <sup>(d)</sup>	Once per 3 months <sup>(d)</sup>
(2) Manual	---	Once during each major refueling outage	---
<b><u>MAIN-STEAM-LINE ISOLATION</u></b>			
(3) High Steam Flow Main- Steam Line	Once/day	Once per 3 months <sup>(d)</sup>	Once per 3 months <sup>(d)</sup>
(4) Deleted			
(5) Low Reactor Pressure	Once/day	Once per 3 months <sup>(d)</sup>	Once per 3 months <sup>(d)</sup>

