Docket No. 50-220

OCT 6 1975

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Niagara Mohawk Power Corporation
ATTN: Mr. Gerald K. Rhode
Vice President - Engineering
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

The Commission has issued the enclosed Amendment No. 2 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit 1. The amendment also includes Change No. 2 to the Technical Specifications in accordance with correspondence between the NRC and NMPC staffs dated June 13 and July 2, 1975.

The amendment modifies the provisions in the Technical Specifications relating to temperature limits for the pressure suppression pool water.

A copy of the Federal Register Notice is also enclosed.

Sincerely,

/s/

George Lear, Chief
Operating Reactors Branch #3
Division of Reactor Licensing

Enclosures:
1. Amendment No. 2
2. Federal Register Notice

cc: See next page

OFFICE	ORB #3	ORB #3	OELD	ORB #3	Act. D:RL	
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DATE	9/26/75	9/26/75	10/1/75	10/2/75	10/3/75	

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cc; w/enclosures

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DATE ➤						

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. 2
License No. DPR-63

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. 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; and

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

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility 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, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 2."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Roger S. Boyd, Acting Director
Division of Reactor Licensing

Attachment:
Change No. 2 to the
Technical Specifications

Date of Issuance: OCT 6 1975

ATTACHMENT TO AMENDMENT NO. 2

CHANGE NO. 2 TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Replace pages 129, 130 and 134 with the attached revised pages.

Add page 134-a.

LIMITING CONDITION FOR OPERATION

3.3.2 PRESSURE SUPPRESSION SYSTEM PRESSURE AND SUPPRESSION CHAMBER WATER TEMPERATURE AND LEVEL

Applicability:

Applies to the interrelated parameters of pressure suppression system pressure and suppression chamber water temperature and level.

Objective:

To assure that the peak suppression chamber pressure does not exceed design values in the event of a loss-of-coolant accident.

Specification:

a. The downcomers in the suppression chamber shall have a minimum submergence of three feet and a maximum submergence of five feet whenever the reactor coolant system temperature is above 215F.

b. During normal power operation, the combination of primary containment pressure and suppression chamber water temperature shall be within the shaded area of (1) Figure 3.3.2a when downcomer submergence is 5 feet, (2) | 2

SURVEILLANCE REQUIREMENT

4.3.2 PRESSURE SUPPRESSION SYSTEM PRESSURE AND SUPPRESSION CHAMBER WATER TEMPERATURE AND LEVEL

Applicability:

Applies to the periodic testing of the pressure suppression system pressure and suppression chamber water temperature and level.

Objective:

To assure that the pressure suppression system pressure and suppression chamber water temperature and level are within required limits.

Specification:

a. At least once per day the suppression chamber water level and temperature and pressure suppression system pressure shall be checked.

b. A visual inspection of the suppression chamber interior, including water line regions, shall be made at each major refueling outage.

c. Whenever heat from relief valve operation is being added to the suppression pool the pool temperature shall be continually monitored and also observed and logged every 5 minutes until the heat addition is terminated. | 2

LIMITING CONDITION FOR OPERATION

Figure 3.3.2b when downcomer submergence is ≥ 4 feet, or (3) Figure 3.3.2c when downcomer submergence is ≥ 3 feet. If these temperatures are exceeded, pool cooling shall be initiated immediately.

c. If Specifications a and b above are not met within 24 hours, the reactor shall be shutdown using normal shutdown procedures.

d. During testing of relief valves which add heat to the torus pool, the water temperature shall not exceed 10F above the normal power operation limit specified in b above. In connection with such testing the pool temperature must be reduced within 24 hours to below the normal power operation limit specified in b above.

e. The reactor shall be scrammed from any operating condition when the suppression pool temperature reaches 110F. Operation shall not be resumed until the pool temperature is reduced to below the normal power operation limit specified in b above.

f. During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 200 psig at normal cooldown rates if the pool temperature reaches 120F.

SURVEILLANCE REQUIREMENT

d. Whenever operation of a relief valve is indicated and the suppression pool temperature reaches 160F or above while the reactor primary coolant system pressure is greater than 200 psig, an external visual examination of the suppression chamber shall be made before resuming normal power operation.

The values specified for suppression chamber water temperature, maximum downcomer submergence, and system pressures are based on the effect these parameters have on the short-term post-accident system pressure following a loss-of-coolant accident. The combinations shown on Figures 3.3.2 a, b and c and the water level required are based on maintaining the post-accident pressure below the design value of 35 psig and the maximum suppression chamber water temperature below 140F in the containment design basis loss-of-coolant accident (Appendix E-11.2.2.3).*

The calculational basis for the pressure suppression system initial conditions, Figures 3.3.2 a, b and c are presented in the Fifth Supplement.*

The three foot minimum and the five foot maximum submergence are a result of the Moss Landing Tests reported in Volume I of the PHSR under "Pressure Suppression Design Basis".

The 215F limit for the reactor is specified, since below this temperature the containment can tolerate a blowdown without exceeding the 35 psig design pressure of the suppression chamber without condensation.

Actually, for reactor temperatures up to 312F the containment can tolerate a blowdown without exceeding the 35 psig design pressure of the suppression chamber, without condensation.

Experimental data indicates that excessive steam condensing loads can be avoided if the peak temperature of the suppression pool is maintained below 160^{o}F during any period of relief valve operation with sonic conditions at the discharge exit. Specifications have been placed on the envelope of reactor operating conditions so that the reactor can be depressurized in a timely manner to avoid the regime of potentially high suppression chamber loadings.

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event a relief valve inadvertently opens or sticks open. As a minimum this action would include: (1) use of all available means to close the valve, (2) initiate suppression pool water cooling heat exchangers, (3) initiate reactor shutdown, and (4) if other relief valves are used to depressurize the reactor, their discharge shall be separated from that of the stuck-open relief valve to assure mixing and uniformity of energy insertion to the pool. 2

Because of the large volume and thermal capacity of the suppression pool, the volume and temperature normally changes very slowly and monitoring these parameters daily is sufficient to establish any temperature trends. By requiring the suppression pool temperature to be continually monitored and frequently logged during periods of significant heat addition, the temperature trends will be closely followed so that appropriate action can be taken. The requirement for an external visual examination following any event where potentially high loadings

*FSAR

could occur provides assurance that no significant damage was encountered. Particular attention should be focused on structural discontinuities in the vicinity of the relief valve discharge since these are expected to be the points of highest stress. 2

Continuous monitoring of suppression chamber water level and temperature and pressure suppression system pressure is provided in the control room. Alarms for these parameters are also provided in the control room.

To determine the status of the pressure suppression system, inspections of the suppression chamber interior surfaces at each major refueling outage with water at its normal elevation will be made. This will assure that gross defects are not developing.

U. S. NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-220

NIAGARA MOHAWK POWER CORPORATION

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY

OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 2 to Facility Operating License No. DPR-63 issued to Niagara Mohawk Power Corporation which revised Technical Specifications for operation of the Nine Mile Point Nuclear Station, Unit 1, located in Oswego County, New York.

The amendment modifies the provisions in the Technical Specifications relating to temperature limits for the pressure suppression pool water.

The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Notice of Proposed Issuance of Amendment to Facility Operating License in connection with this action was published in the FEDERAL REGISTER on August 25, 1975 (40 F.R. 37109). No request for a hearing or petition for leave to intervene was filed following notice of the proposed action.

For further details with respect to this action, see (1) the letter from Karl Goller to G. Rhode dated June 13, 1975, (2) letter from G. Rhode to Karl Goller dated July 2, 1975, (3) Amendment No. 2 to License No. DPR-63, with Change No. 2, and (4) the Commission's related

Safety Evaluation dated August 15, 1975. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Oswego City Library, 120 E. Second Street, Oswego, New York.

A copy of items (1), (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Licensing.

Dated at Bethesda, Maryland, this 24th day of October, 1975.

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Reactor Licensing