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AUGUST 10 1979

Docket No. 50-220

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Mr. Donald P. Dise
Vice President - Engineering
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Dear Mr. Dise:

The Commission has issued the enclosed Amendment No. 34 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station Unit No. 1. The amendment permits 100 percent power operation with one recirculation loop isolated and is in response to your request dated July 19, 1979.

By license Amendment No. 24, dated May 15, 1978, power had been limited to 90.5 percent power in order to ensure plant safety during a postulated idle loop startup transient. The enclosed amendment specifies procedural and administrative controls which preclude the postulated event from occurring.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original Signed by
T. A. Ippolito

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:
1. Amendment No. 34
2. Safety Evaluation
3. Notice

cc w/enclosures:
See page 2

CP
RSB/DOR
10 Aug 79
Concurrence for Amendment and Notice As Req'd

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OFFICE	ORB #3	ORB #3	AD:ORP	OELD	ORB #3	
SURNAME	SSheppard	PPolk:mjf	WGammill		TIppolito	
DATE	8/9/79	8/9/79	8/10/79	8/10/79	8/9/79	

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cc:

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Mr. Robert P. Jones, Supervisor
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Niagara Mohawk Power Corporation
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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 NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
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 July 19, 1979, 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. 34, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 10, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 34

FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A by removing pages 64a and 70a and replacing with revised pages 64a and 70a. Marginal lines indicate area of change.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
c. Minimum Critical Power Ratio (MCPR) During power operation MCPR shall be $\geq$ 1.40 for 8x8 fuel and $\geq$ 1.37 for 8x8R fuel at rated power and flow. If at any time during power operation it is determined by normal surveillance that these limits are no longer met, action shall be initiated within 15 minutes to restore operation to within the prescribed limits. If all the operating MCPRs are not returned to within the prescribed limits within two (2) hours, reactor power reductions shall be initiated at a rate not less than 10% per hour until MCPR is within the prescribed limits. For core flows other than rated the MCPR limits shall be the limits identified above times K_f where K_f is as shown in Figure 3.1.7-1.	c. Minimum Critical Power Ratio (MCPR) MCPR shall be determined daily during reactor power operation at >25% rated thermal power.
d. Power Flow Relationship During Power Operation The power/flow relationship shall not exceed the limiting values shown in Figure 3.1.7.aa. When operating with one recirculation loop isolated, the reactor may operate at 100 percent of full licensed power level provided the following conditions are met: 1. Suction valve, discharge valve and discharge bypass valve in the isolated loop shall be in the closed position and the associated motor breakers shall be locked and tagged in the open position. 2. Associated pump motor circuit breaker shall be open, tagged, and the breaker removed. If these conditions are not met, core power shall be restricted to 90.5 percent of full licensed power.	d. Power Flow Relationship Compliance with the power flow relationship in Section 3.1.7.d shall be determined daily during reactor operation.

Amendment No. 34

of the plant, a MCPR evaluation will be made at the 25% thermal power level with minimum recirculation pump speed. The MCPR margin will thus be demonstrated such that future MCPR evaluations below this power level will be shown to be unnecessary. The daily requirement for calculating MCPR above 25% rated thermal power is sufficient since power distribution shifts are very slow when there have not been significant power or control rod changes. The requirement for calculating MCPR when a limiting control rod pattern is approached ensures that MCPR will be known following a change in power or power shape (regardless of magnitude) that could place operation at a thermal limit.

Figure 3.1.7-1 is used for calculating MCPR during operation at other than rated conditions. For the case of automatic flow control the K_f factor is determined such that any automatic increase in power (due to flow control) will always result in arriving at the nominal required MCPR at 100% power. For manual flow control, the K_f is determined such that an inadvertent increase in core flow (i.e., operator error or recirculation pump speed controller failure) would result in arriving at the 99.9% limit MCPR when core flow reaches the maximum possible core flow corresponding to a particular setting of the recirculation pump MG set scoop tube maximum speed control limiting set screws. These screws are to be calibrated and set to a particular value and whenever the plant is operating in manual flow control the K_f defined by that setting of the screws is to be used in the determination of required MCPR. This will assure that the reduction in MCPR associated with an inadvertent flow increase always satisfies the 99.9% requirement. Irrespective of the scoop tube setting, the required MCPR is never allowed to be less than the nominal MCPR (i.e., K_f is never less than unity).

Power/Flow Relationship

The power/flow curve is the locus of critical power as a function of flow from which the occurrence of abnormal operating transients will yield results within defined plant safety limits. Each transient and postulated accident applicable to operation of the plant was analyzed along the power/flow line. The analysis[7] justifies the operating envelope bounded by the power/flow curve as long as other operating limits are satisfied. Operation under the power/flow line is designed to enable the direct ascension to full power within the design basis for the plant.

The requirements of Specification 3.1.7d for isolated loop operation precludes the inadvertent start-up of a recirculation pump with a cold leg. However, if these conditions cannot be met, power level is restricted to 90.5 percent power based on current transient analysis.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 34 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 July 19, 1979 Niagara Mohawk Power Corporation, the licensee, applied for amendment to License No. DPR-63 and the Technical Specifications (Appendix A) for Nine Mile Point Nuclear Station, Unit No. 1. The licensee has proposed to use procedural controls to preclude inadvertent recirculation pump startup. The current Technical Specifications limit power operations based on the inadvertent recirculation pump startup transient. Therefore, these changes are required to allow rated power operation with one recirculation loop isolated.

Evaluation

Nine Mile Point Unit 1 was designed to normally have all five recirculation loops in operation and is approved to operate with one recirculation loop isolated at power levels up to 90.5 percent.

Previous accident analyses for five loop operation are bounding for four loop operation with the idle loop isolated except for the Loss of Coolant Accident. If the idle loop is isolated, MAPLHGR limits must be reduced by 2 percent as described in Specification 3.1.7a. These analyses and modifications were approved in Amendment No. 24.

Previous core wide transient analyses for five loop operation are bounding for four loop operation with the idle loop isolated, except for the idle loop startup transient analysis (Amendment No. 24). The Final Safety Analysis Report, analyzed idle loop startup with an initial power of 90.5 percent. In order to allow rated power operation with one recirculation loop isolated, Niagara Mohawk will utilize procedural controls, as outlined below, to preclude idle loop startup.

1. Both suction and discharge valves in the isolated loop shall be in the closed position and the associated breakers shall be locked in the open position.

2. Associated pump motor circuit breakers shall be open and the breaker removed and tagged.

These requirements for isolated loop operation assure that two or more errors or malfunctions are required to initiate the inadvertent startup of a recirculation pump. Thus, the inadvertent startup of a recirculation pump need not be considered for transient analyses and the current power level restriction of 90.5 percent may be removed.

Environmental Considerations

We have determined that this amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves an action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 10, 1979

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-220

NIAGARA MOHAWK POWER CORPORATION

NOTICE OF ISSUANCE OF FACILITY LICENSE AMENDMENT

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 34 to Facility Operating License No. DPR-63 to Niagara Mohawk Power Corporation (the licensee) which revised the Technical Specifications for operation of the Nine Mile Point Nuclear Station, Unit No. 1 (the facility) located in Oswego County, New York. The amendment is effective as of its date of issuance.

The amendment revises the Technical Specifications to permit 100% power operation with one recirculation loop isolated.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. 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. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated July 19, 1979, (2) Amendment No. 34 to License No. DPR-63,

and (3) the Commission's related Safety Evaluation. 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 County Office Building, 46 E. Bridge Street, Oswego, New York 13126. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland this 10th day of August 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operaing Reactors