



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

January 22, 1996

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

SUBJECT: ISSUANCE OF AMENDMENT FOR NINE MILE POINT NUCLEAR STATION UNIT
NO. 1 (TAC NO. M91498)

Dear Mr. Sylvia:

The Commission has issued the enclosed Amendment No. 156 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 (TSs) in response to your application transmitted by letter dated January 24, 1995.

The amendment revises TS 3.4.1, "Leakage Rate," and the associated Bases section. Specifically, the TS allowable Reactor Building leakage rate is reduced from 2000 cfm to 1600 cfm.

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

Sincerely,

Gordon E. Edison, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosures: 1. Amendment No. 156 to DPR-63
2. Safety Evaluation

cc w/encls: See next page

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Original signed by:

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Distribution: See attached sheet

DOCUMENT NAME: G:\NMP1\NM191498.AMD

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OFFICE	LA:PDI-1	PM:PDI-1	OGC	D:PDI-1	
NAME	SLittle	GEdison:smm	Cmarco	LMarsh	
DATE	12/29/95	12/1/95	12/1/95	12/1/95	12/1/95

Note minor changes

1/3/96 OFFICIAL RECORD COPY 01/27/96
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DATED: January 22, 1996

AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. DPR-63-NINE MILE POINT
UNIT NO. 1

Docket File

PUBLIC

PDI-1 Reading

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L. Marsh

S. Little

G. Edison

R. Goel

OGC

G. Hill (2), T-5 C3

C. Grimes, 11/E/22

ACRS

PD plant-specific file

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260056

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Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit No. 1

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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. 156
License No. DPR-63

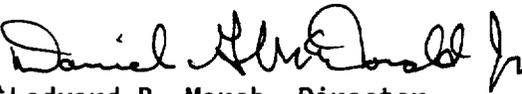
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated January 24, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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. 156, 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION


for Ledyard B. Marsh, 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: January 22, 1996

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

165

167

Insert Pages

165

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LIMITING CONDITION FOR OPERATION

3.4.1 LEAKAGE RATE

Applicability:

Applies to the leakage rate of the secondary containment.

Objective:

To specify the requirements necessary to limit exfiltration of fission products released to the secondary containment as a result of an accident.

Specification:

Whenever the reactor is in the refueling or power operating condition, the reactor building leakage rate as determined by Specification 4.4.1 shall not exceed 1600 cfm. If this cannot be met after a routine surveillance check, then the actions listed below shall be taken:

- a. Suspend immediately irradiated fuel handling, fuel pool and reactor cavity activities, and irradiated fuel cask handling operations in the reactor building.
- b. Restore the reactor building leakage rates to within specified limits within 4 hours or initiate normal orderly shutdown and be in a cold shutdown condition within 10 hours.

SURVEILLANCE REQUIREMENT

4.4.1 LEAKAGE RATE

Applicability:

Applies to the periodic testing requirements of the secondary containment leakage rate.

Objective:

To assure the capability of the secondary containment to maintain leakage within allowable limits.

Specification:

Once during each operating cycle - isolate the reactor building and start emergency ventilation system fan to demonstrate negative pressure in the building relative to external static pressure. The fan flow rate shall be varied so that the building internal differential pressure is at least as negative as that on Figure 3.4.1 for the wind speed at which the test is conducted. The fan flow rate represents the reactor building leakage referenced to zero mph with building internal pressure at least 0.25 inch of water less than atmospheric pressure. The test shall be done at wind speeds less than 20 miles per hour.

BASES FOR 3.4.1 AND 4.4.1 LEAKAGE RATE

In the answers to Questions II-3 and IV-5 of the Second Supplement and also in the Fifth Supplement*, the relationships among wind speed, direction, pressure distribution outside the building, building internal pressure, and reactor building leakage are discussed. The curve of pressure in Figure 3.4.1 represents the wind direction which results in the least building leakage. It is assumed that when the test is performed, the wind direction is that which gives the least leakage.

If the wind direction was not from the direction which gave the least reactor building leakage, building internal pressure would not be as negative as Figure 3.4.1 indicates. Therefore, to reduce pressure, the fan flow rate would have to be increased. This erroneously indicates that reactor building leakage is greater than if wind direction were accounted for. If wind direction were accounted for, another pressure curve could be used which was less negative. This would mean that less fan flow (or measured leakage) would be required to establish building pressure. However, for simplicity it is assumed that the test is conducted during conditions leading to the least leakage while the accident is assumed to occur during conditions leading to the greatest reactor building leakage.

As discussed in the Second Supplement and Fifth Supplement, the pressure for Figure 3.4.1 is independent of the reactor building leakage rate referenced to zero mph wind speed at a negative differential pressure of 0.25 inch of water. Regardless of the leakage rate at these design conditions, the pressure versus wind speed relationship remains unchanged for any given wind direction.

By requiring the reactor building pressure to remain within the limits presented in Figure 3.4.1 and a reactor building leakage rate of less than 1600 cfm, exfiltration would be prevented. This would assure that the leakage from the primary containment is directed through the filter system and discharged from the 350-foot stack.

*FSAR



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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. DPR-63

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

DOCKET NO. 50-220

1.0 INTRODUCTION

In a submittal dated January 24, 1995, Niagara Mohawk, the licensee for Nine Mile Point Unit 1 (NMP1) proposed to revise the Technical Specifications (TSs) 3.4.1, "Leakage Rate" and the Associated Bases to revise the Reactor Building leakage rate from 2000 cfm to 1600 cfm. The licensee indicated that this change is being proposed based on Reactor Building and Reactor Building Emergency Ventilation System (RBEVS) design. On March 29, 1992, it was determined that Surveillance Test NI-ST-C5, "Secondary Containment and Reactor Building Emergency Ventilation System Operability Test" did not meet TS surveillance requirements for Reactor Building leakage rate (Section 4.4.1). Licensee Event Report (LER) 92-06 was written to address the inconsistency between the TS and other design documents. Procedure NI-ST-C5 was revised to require the use of the more conservative 1600 cfm leakage rate to address the corrective action of the LER.

2.0 EVALUATION

The Reactor Building is designed for a maximum in-leakage of 100% of the building volume per day at 0.25 inch of water internal vacuum under zero or low wind conditions and the RBEVS is designed to maintain that vacuum. In performing the associated surveillance test, the building is completely isolated except for the outlet through the emergency ventilation system. The system is then placed in operation and the RBEVS flow adjusted to 1600 cfm. The building differential pressure must be greater than -0.25 inches water gauge referenced to 0 mph wind speed.

The licensee stated that the 2000 cfm Reactor Building in-leakage was a preliminary flow rate used to size the RBEVS. The equipment is rated/designed for that limit with the exception of the filters which have design flow of 1600 cfm. The exhaust dampers limit the flow to approximately 1600 cfm based upon the controller settings. A calculation for the Reactor Building volume has determined the volume to be 2,137,000 cubic feet of air space. The calculation has accounted for floors, columns, rooms, major structures and also allowed for a 10% volume reduction due to equipment, piping and other miscellaneous items. Based on this volume, an emergency ventilation fan flow rate of 1484 cfm would be necessary for one volume change in 1 day. Hence, a

leakage rate of 1600 cfm upon which the radiological analysis is based, now appropriately reflects the actual building volume. Past tests have demonstrated building tightness at a pressure of 0.25 inches water gauge vacuum at flow rates less than 1600 cfm. Each train of the RBEVS is designed for a minimum flow equal to one building air change per day at 0.25 inches water gauge vacuum. Surveillance Test Procedure NI-STS-C5 for RBEVS operability test limits flow to less than or equal to 1600 cfm. Therefore, the proposed change to the Reactor Building in-leakage rate from 2000 cfm to 1600 cfm is consistent with system design, is more conservative and has no adverse effect on the radiological consequences since the radiological analysis does not assume any exfiltration.

Based on the above, the staff finds the proposed change in Reactor Building in-leakage from 2000 cfm to 1600 cfm in Specification 3.4.1 and the Associated Basis acceptable because it is consistent with system design and reflects the leakage rate associated with approximately one building volume change per day and has no adverse effect on radiological consequences. The lower Reactor Building leakage specification more closely reflects the staff's SRP 6.2.3 position that secondary containment leakage be limited to less than 100% of the volume per day.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 11134). Accordingly, the 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 the amendment.

5.0 CONCLUSION

The Commission has 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, (2) such

activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Goel

Date: January 22, 1996