

July 3, 1996

Mr. William J. Cahill, Jr.
Chief Nuclear Officer
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

SUBJECT: ISSUANCE OF AMENDMENT FOR INDIAN POINT NUCLEAR GENERATING UNIT
NO. 3 (TAC NO. M94960)

Dear Mr. Cahill:

The Commission has issued the enclosed Amendment No.167 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3 (IP3). The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated March 12, 1996. The proposed changes would remove a requirement to cross-tie safety injection accumulators.

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,

/S/

George F. Wunder, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures: 1. Amendment No.167 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

Distribution: See attached sheet

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 3, 1996

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Chief Nuclear Officer
Power Authority of the State
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123 Main Street
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Dear Mr. Cahill:

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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,

A handwritten signature in cursive script, appearing to read "George F. Wunder".

George F. Wunder, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures: 1. Amendment No.¹⁶⁷ to DPR-64
2. Safety Evaluation

cc w/encls: See next page

William J. Cahill, Jr.
Power Authority of the State
of New York

Indian Point Nuclear Generating
Station Unit No. 3

cc:

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DATED: July 3, 1996

AMENDMENT NO. 167 TO FACILITY OPERATING LICENSE NO. DPR-64-INDIAN POINT UNIT 3

Docket File

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PDI-1 Reading

S. Varga, 14/E/4

J. Mitchell

S. Little

G. Wunder

OGC

G. Hill (2)

C. Grimes, 11/F/23

ACRS

PD plant-specific file

C. Cowgill, Region I

R. Wessman, 7-E-23

F. Paulitz

cc: Plant Service list

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

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. ¹⁶⁷
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Power Authority of the State of New York (the licensee) dated March 12, 1996, 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-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 167, 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



Jocelyn A. Mitchell, 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: July 3, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 167

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages

Table 4.1-1 (Sheet 3 of 6)

Table 4.1-1 (Sheet 6 of 6)

Insert Pages

Table 4.1-1 (Sheet 3 of 6)

Table 4.1-1 (Sheet 6 of 6)

TABLE 4.1-1 (Sheet 3 of 6)

Channel Description	Check	Calibrate	Test	Remarks
e. Main Steam Lines Process Radiation Monitors (R-62A, R-62B, R-62C, and R-62D)	D	24M	Q	
f. Gross Failed Fuel Detectors (R-63A and R-63B)	D	24M	Q	
16. Containment Water Level Monitoring System:				
a. Containment Sump	N.A.	24M	N.A.	Narrow Range, Analog Narrow Range, Analog Wide Range
b. Recirculation Sump	N.A.	24M	N.A.	
c. Containment Water Level	N.A.	24M	N.A.	
17. Accumulator Level and Pressure	S	18M	N.A.	
18. Steam Line Pressure	S	24M	Q	
19. Turbine First Stage Pressure	S	24M	Q	
20a. Reactor Trip Relay Logic	N.A.	N.A.	TM	
20b. ESF Actuation Relay Logic	N.A.	N.A.	TM	
21. Turbine Trip Low Auto Stop Oil Pressure	N.A.	24M	N.A.	
22. DELETED	DELETED	DELETED	DELETED	
23. Temperature Sensor in Auxiliary Boiler Feedwater Pump Building	N.A.	N.A.	18M	
24. Temperature Sensors in Primary Auxiliary Building				
a. Piping Penetration Area	N.A.	N.A.	24M	
b. Mini-Containment Area	N.A.	N.A.	24M	
c. Steam Generator Blowdown Heat Exchanger Room	N.A.	N.A.	24M	

Table Notation

- * By means of the movable incore detector system
- ** Quarterly when reactor power is below the setpoint and prior to each startup if not done previous month.

- # These requirements are applicable when specification 3.3.F.5 is in effect only.

- S - Each Shift
- W - Weekly
- P - Prior to each startup if not done previous week
- M - Monthly
- NA - Not Applicable
- Q - Quarterly
- D - Daily
- 18M - At least once per 18 months
- TM - At least every two months on a staggered test basis (i.e., one train per month)
- 24M - At least once per 24 months
- 6M - At least once per 6 months



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 167 TO FACILITY OPERATING LICENSE NO. DPR-64
POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3
DOCKET NO. 50-286

1.0 INTRODUCTION

By letter dated March 12, 1996, the New York Power Authority, the licensee for Indian Point Nuclear Generating Unit No. 3 (IP3), submitted a proposed change to the IP3 Technical Specifications (TSs). The change to TS Table 4.1-1 will eliminate a requirement to interconnect two or more accumulators for the purpose of cross checking instrumentation in the event that one of the two pressure or level instrument channels on an accumulator is declared inoperable.

As part of the IP3 Engineered Safety Features System (ESFS), there are four accumulators that contain borated (2000-2600 ppm) water (775-815 cu ft) and that are pressurized (600-700 psig) by nitrogen gas. The accumulators are connected to the reactor coolant system (RCS) cold leg and are isolated from the RCS with two check valves and a normally open motor operated valve in series. During a loss-of-coolant accident (LOCA), the water in the accumulators will discharge into the reactor when the reactor pressure falls below the accumulator nitrogen pressure.

Each accumulator has four instrument taps with two taps on opposite sides. The taps on each side have a nitrogen pressure and a water level sensor. Therefore, two pressure and two level indications are provided to the operator from each accumulator. High and low pressure and high and low level alarms from each instrument are also provided in the control room. The TS require that at least one pressure and one level sensor be operable per accumulator, and TS Table 4.1-1 Item 17, requires that the pressure and level channels be checked for operability once each shift. A note in the TS also requires that: "If either an accumulator level or pressure instrument channel is declared inoperable, the remaining level or pressure channel must be verified operable by interconnecting and equalizing a minimum of two accumulators and cross checking the instrumentation."

On February 23, 1996, licensee personnel discovered that in the past, IP3 was operated in an unanalyzed condition that could have potentially affected plant safety. The unanalyzed condition was the interconnection (cross-tie) of two accumulators in order to adjust water level or nitrogen pressure between accumulators. The cross-tie to verify instrument operability is performed infrequently and for only a short duration.

The IP3 plant design basis requires that three of four accumulators discharge into the reactor during a LOCA. Recent licensee calculations confirmed that two accumulators cross-tied together feeding a postulated broken RCS loop during a LOCA would render both accumulators inoperable. To correct this condition, the licensee revised its procedures to prevent cross-tying accumulators when the RCS temperature is greater than 350 °F. The licensee also proposed a TS change to remove the note in Table 4.1-1 that requires cross-tying of two accumulators for verification of instrument operability.

2.0 EVALUATION

Since the accident analysis for the large-break LOCA requires three accumulators for adequate core re-flooding and fuel cooling, cross-tying two accumulators is an inappropriate action. An inoperable pressure or level sensor on an accumulator does not preclude the other pressure or level sensor from being available to provide an alarm or indication for operator action. The Westinghouse Standard Technical Specifications (STS), NUREG-1431, Revision 1, April 7, 1995, Section 3.5 Emergency Core Cooling System (ECCS), Subsection 3.5.1 Accumulators, surveillance requirements (SR) for operability require verification every 12 hours that:

- a. Each accumulator isolation valve is fully open (SR 3.5.1.1)
- b. Borated water volume in each accumulator is as specified (SR 3.5.1.2), and
- c. Nitrogen cover pressure in each accumulator is as specified (SR 3.5.1.3)

The SR for operability also requires verification every 31 days that boron concentration in each accumulator is as specified (SR 3.5.1.4).

Although there are redundant channels of both pressure and level sensors on each accumulator, the accumulator operability may be determined from one channel of pressure or level sensors that are checked by plant operators observing and logging instrument readings. TS 3.3.A.3.d requires one pressure and one level transmitter to be operable per accumulator. The staff finds the existing instrumentation TS requirement sufficient to confirm accumulator operability.

Based on the staff review of the licensee request to remove the note that requires two accumulators to be cross-tied to determine instrument channel operability when either a pressure or level channel becomes inoperable, the staff concludes that the remaining operable pressure or level channel and associated TS requirements are sufficient to determine that the accumulator is operable and are consistent with the Westinghouse STS, NUREG-1431. The staff, therefore, finds the proposed removal of the note for instrumentation cross-tie to be acceptable.

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 and changes surveillance requirements. 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 (61 FR 20853). 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: F. Paulitz

Date: July 3, 1996