



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

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 167
License No. DPR-26

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Consolidated Edison Company of New York, Inc. (the licensee) dated May 5, 1993, as revised by letter dated August 27, 1993, and supplemented by letter dated December 21, 1993, 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-26 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. 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

Robert A. Capra for

Robert A. Capra, 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: December 28, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 167

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Revise Appendix A as follows:

Remove Pages

2.3-2
Table 3.5-1 (page 1 of 1)
Table 4.1-1 (page 1 of 7)
Table 4.1-1 (page 2 of 7)
Table 4.1-1 (page 3 of 7)

Insert Pages

2.3-2
Table 3.5-1 (page 1 of 1)
Table 4.1-1 (page 1 of 7)
Table 4.1-1 (page 2 of 7)
Table 4.1-1 (page 3 of 7)

P = Pressurizer pressure, psig

P' = 2235 psig

$K_1 \leq 1.22$

$K_2 = 0.022$

$K_3 = 0.00095$

and $f(\Delta I)$ is a function of the indicated difference between top and bottom detectors of the power-range nuclear ion chambers; with gains to be selected based on measured instrument response during plant startup tests such that:

- (i) For $q_t - q_b$ between -36% and +7%, $f(\Delta I) = 0$, where q_t and q_b are percent rated power in the top and bottom halves of the core respectively, and $q_t + q_b$ is total power in percent of rated power;
- (ii) For each percent that the magnitude of $q_t - q_b$ exceeds -36%, the ΔT trip setpoint shall be automatically reduced by 2.14% of its value at rated power; and
- (iii) For each percent that the magnitude of $q_t - q_b$ exceeds +7%, the ΔT trip setpoint shall be automatically reduced by 2.15% of its value at rated power.

(5) Overpower ΔT :

$$\Delta T \leq \Delta T_0 [K_4 - K_5 \frac{dT}{dt} - K_6 (T - T^*)]$$

where:

ΔT = Measured ΔT by hot and cold leg RTDs, °F

$\Delta T_0 \leq$ Indicated ΔT at rated power, °F

T = Average temperature, °F

Table 3.5-1

Engineered Safety Features Initiation Instrument Setting Limits

No.	Functional Unit	Channel	Setting Limits
1.	High Containment Pressure (Hi Level)	Safety Injection	≤ 2.0 psig
2.	High Containment Pressure (Hi-Hi Level)	a. Containment Spray b. Steam Line Isolation	≤ 24 psig
3.	Pressurizer Low Pressure	Safety Injection	≥ 1833 psig
4.	High Differential Pressure Between Steam Lines	Safety Injection	≤ 155 psi
5.	High Steam Flow in 2/4 Steam Lines Coincident with Low T_{avg} or Low Steam Line Pressure	a. Safety Injection b. Steam Line Isolation	$\leq 40\%$ of full steam flow at zero load $\leq 40\%$ of full steam flow at 20% load $\leq 110\%$ of full steam flow at full load $\geq 540^{\circ}\text{F } T_{avg}$ ≥ 525 psig steam line pressure
6.	Steam Generator Water Level (Low-Low)	Auxiliary Feedwater	$\geq 7\%$ of narrow range instrument span each steam generator
7.	Station Blackout (Undervoltage)	Auxiliary Feedwater	$\geq 40\%$ nominal voltage
8a.	480V Emergency Bus Undervoltage (Loss of Voltage)	-----	220V + 100V, -20V 3 sec \pm 1 sec
8b.	480V Emergency Bus Undervoltage (Degraded Voltage)	-----	403V \pm 5V 180 sec \pm 30 sec

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and
Tests of Instrument Channels

Channel Description	Check	Calibrate	Test	Remarks
1. Nuclear Power Range	S	D (1) M* (3)	Q (2)	1) Heat balance calibration 2) Signal to delta T; bistable action (permissive, rod stop, trips) 3) Upper and lower chambers for axial offset.
2. Nuclear Intermediate Range	S (1)	N.A.	S/U** (2)	1) Once/shift when in service Log level; bistable action (permissive, rod stop, trip)
3. Nuclear Source Range	S (1)	N.A.	S/U** (2)	1) Once/shift when in service 2) Bistable action (alarm, trip)
4. Reactor Coolant Temperature	S	R#	Q (1)	1) Overtemperature - delta T 2) Overpower - delta T
5. Reactor Coolant Flow	S	R#	Q	
6. Pressurizer Water Level	S	R#	Q	
7. Pressurizer Pressure (High & Low)	S	R#	Q	
8. 6.9 kV Voltage & Frequency	N.A.	R	Q	Reactor Protection circuits only
9. Analog Rod Position	S	R	M	

* By means of the movable incore detector system.

** Prior to each reactor startup if not done previous week.

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and
Tests of Instrument Channels

Channel Description	Check	Calibrate	Test	Remarks
10. Rod Position Bank Counters	S	N.A.	N.A.	With analog rod position
11. Steam Generator Level	S	R#	Q	
12. Charging Flow	N.A.	R#	N.A.	
13. Residual Heat Removal Pump Flow	N.A.	R#	N.A.	
14. Boric Acid Tank Level	W	R	N.A.	Bubbler tube rodded during calibration
15. Refueling Water Storage Tank Level	W	R	N.A.	
16. DELETED				
17. Volume Control Tank Level	N.A.	R	N.A.	
18a. Containment Pressure	D	R#	Q	Wide Range
18b. Containment Pressure	S	R#	Q	Narrow Range
18c. Containment Pressure (PT-3300, PT-3301)	M	R#	N.A.	High Range
19. Process Radiation Monitoring System	D	R#	M	
19a. Area Radiation Monitoring System	D	R#	M	
19b. Area Radiation Monitoring System (VC)	D	R#	M	

Table 4.1-1

Minimum Frequencies for Checks, Calibrations and
Tests of Instrument Channels

Channel Description	Check	Calibrate	Test	Remarks
20. Boric Acid Make-up Flow Channel	N.A.	R	N.A.	
21a. Containment Sump and Recirculation Sump Level (Discrete)	S	R#	R#	Discrete Level Indication Systems.
21b. Containment Sump, Recirculation Sump and Reactor Cavity Level (Continuous)	S	R#	R#	Continuous Level Indication Systems.
21c. Reactor Cavity Level Alarm	N.A.	R#	R#	Level Alarm System
21d. Containment Sump Discharge Flow	S	R	M	Flow Monitor
21e. Containment Fan Cooler Condensate Flow	S	R#	M*	
22a. Accumulator Level	S	R#	N.A.	
22b. Accumulator Pressure	S	R#	N.A.	
23. Steam Line Pressure	S	R#	Q	
24. Turbine First Stage Pressure	S	R#	Q	
25. Reactor Trip Logic Channel Testing	N.A.	N.A.	M ¹	
26. Turbine Overspeed Protection Trip Channel (Electrical)	N.A.	R#	M	

* Monthly visual inspection of condensate weirs only.