



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555  
August 11, 1992

Docket No. 50-247

Mr. Stephen B. Bram  
Vice President, Nuclear Power  
Consolidated Edison Company  
of New York, Inc.  
Broadway and Bleakley Avenue  
Buchanan, New York 10511

Dear Mr. Bram:

SUBJECT: ISSUANCE OF AMENDMENT FOR INDIAN POINT NUCLEAR GENERATING  
UNIT NO. 2 (TAC NO. M82575)

The Commission has issued the enclosed Amendment No. 157 to Facility Operating License No. DPR-26 for the Indian Point Nuclear Generating Unit No. 2. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated December 30, 1991, as supplemented July 15, 1992.

The amendment revises Technical Specification Section 3.3.H.3 and Basis 3.3 by deleting the requirement for a hydrogen cyanide detection system and changing the setpoint of the ammonia monitor from 3.5 ppm to 25 ppm.

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 "Francis Williams, Jr.".

Francis J. Williams, Jr., Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 157 to DPR-26
2. Safety Evaluation

cc w/enclosures:  
See next page

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PDR ADOCK 05000247  
P PDR

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*Handwritten notes:*  
DFO  
CP-1

Mr. Stephen B. Bram  
Consolidated Edison Company  
of New York, Inc.

Indian Point Nuclear Generating  
Station Units 1/2

cc:

Mayor, Village of Buchanan  
236 Tate Avenue  
Buchanan, New York 10511

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New York State Energy Office  
2 Empire State Plaza  
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Albany, New York 12223

Mr. Charles W. Jackson  
Manager of Nuclear Safety and  
Licensing  
Consolidated Edison Company  
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Broadway and Bleakley Avenue  
Buchanan, New York 10511

Senior Resident Inspector  
U. S. Nuclear Regulatory Commission  
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Assistant Attorney General  
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Mr. Peter Kokolakis, Director  
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Power Authority of the State  
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Mr. Walter Stein  
Secretary - NFSC  
Consolidated Edison Company  
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4 Irving Place - 1822  
New York, New York 10003

Regional Administrator, Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

DATED: August 11, 1992

AMENDMENT NO. 157 TO FACILITY OPERATING LICENSE NO. DPR-26-INDIAN POINT UNIT 2

Docket File

NRC & Local PDRs

PDI-1 Reading

S. Varga, 14/E/4

J. Calvo, 14/A/4

R. Capra

C. Vogan

F. Williams

OGC-WF

D. Hagan, 3302 MNBB

G. Hill (4), P-137

Wanda Jones, P-130A

C. Grimes, 11/F/23

K. Parczewski, 7/D/4

ACRS (10)

OPA

OC/LFMB

PD plant-specific file

C. Cowgill, Region I

cc: Plant Service list



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

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. 157  
License No. DPR-26

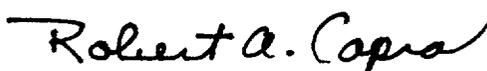
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Consolidated Edison Company of New York, Inc. (the licensee) dated December 30, 1991, as supplemented July 15, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.157 , 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, 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: August 11, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 157

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Revise Appendix A as follows:

Remove Pages

3.3-12  
3.3-19

Insert Pages

3.3-12  
3.3-19

3. Two independent toxic gas detection systems, each capable of detecting chlorine and anhydrous ammonia shall be operable at all times except as specified in 3.a, 3.b, or 3.c below. The alarm/trip setpoints for the chlorine and anhydrous ammonia gas detection systems shall be adjusted to actuate at a toxic gas concentration of less than or equal to 3.5 ppm and 25 ppm, respectively.
  - a. With one toxic gas detection system inoperable, restore the inoperable detection system to operable status within 7 days.
  - b. If 3.a above cannot be satisfied within the specified time, then, within the next 6 hours, initiate and maintain operation of the control room ventilation system in the recirculation mode of operation.
  - c. With both toxic gas detection systems inoperable for any one toxic gas, within one hour initiate and maintain operation of the control room ventilation in the recirculation mode of operation.

I. CABLE TUNNEL VENTILATION FANS

1. The reactor shall not be made critical unless the two cable tunnel ventilation fans are operable.
2. During power operation, the requirement of 3.3.I.1 may be modified to allow one cable tunnel ventilation fan to be inoperable for seven days, provided the other fan is operable.

Basis

The normal procedure for starting the reactor is, first, to heat the reactor coolant to near operating temperature by running the reactor coolant pumps. The reactor is then made critical by withdrawing control rods and/or diluting boron in the coolant<sup>(1)</sup>. With this mode of start-up, the energy stored in the reactor coolant during the approach to criticality is substantially equal to that during

The post-accident venting system is used only in the absence of hydrogen recombiners and only when absolutely necessary. From the standpoint of minimizing offsite radiation doses, the optimum starting time for the venting system, if needed, is the latest possible time after the accident. Consistent with this philosophy, the selected venting initiation point of 3 percent hydrogen maximizes the time period before venting is required while at the same time allows a sufficient margin of safety below the lower flammability limit of hydrogen.

The control room air filtration system is designed to filter the control room atmosphere for intake air and/or for recirculation during control room isolation conditions. The control room system is designed to automatically start upon control room isolation. Control room isolation is initiated either by a safety injection signal or by detection of high radioactivity in the control room. If the control room air filtration system is found to be inoperable, there is no immediate threat to the control room and reactor operation may continue for a limited period of time while repairs are being made. If the system cannot be repaired within 3.5 days, the reactor is placed in the hot shutdown condition.

The control room ventilation system is equipped with toxic gas detection systems consisting of redundant monitors capable of detecting chlorine and anhydrous ammonia. These toxic gas detection systems are designed to isolate the control room from outside air upon detection of toxic concentration of the monitored gases in the control room ventilation system. The operability of the toxic gas detection systems provides assurance that the control room operators will have adequate time to take protective action in the event of an accidental toxic gas release. Selection of the gases to be monitored and the setpoint established for the monitors are based on the results described in the Indian Point Unit No. 2 Control Room Habitability Study dated June 10, 1991.

The cable tunnel is equipped with two temperature-controlled ventilation fans. Each fan has a capacity of 21,000 cfm and is connected to a 480v bus. One fan will start automatically when the temperature in the tunnel reaches 100°F. Under the worst conditions, i.e., loss of outside power and all the Engineered Safety Features in operation, one ventilation fan is capable of maintaining the tunnel temperature below 104°F. Under the same worst conditions, if no ventilation fans



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 157 TO FACILITY OPERATING LICENSE NO. DPR-26  
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2  
DOCKET NO. 50-247

1.0 INTRODUCTION

By letter dated December 30, 1991, as supplemented July 15, 1992, the Consolidated Edison Company of New York (the licensee) submitted a request for changes to the Indian Point Nuclear Generating Unit No. 2, Technical Specifications (TS). The requested changes would modify the Control Room Air Filtration System Technical Specifications to delete the requirement to monitor hydrogen cyanide and to increase the ammonia monitor alarm/trip setpoint from 3.5 ppm to 25 ppm. The July 15, 1992, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination and was not outside the scope of the original notice.

2.0 EVALUATION

The hydrogen cyanide monitoring system was required because there was a source of hydrogen cyanide within 5-mile radius from the plant. However, this source was recently removed and the licensee obtained firm assurances from the owners of the storage facility that no hydrogen cyanide will be stored or transported in the vicinity of the plant. In light of this finding, there is no need for the hydrogen cyanide monitoring system. The licensee's request for removing of this system is, therefore, acceptable because it complies with the requirement of General Design Criterion (GDC) 19.

The current TS require that the ammonia monitoring system should be able to detect 3.5 ppm of ammonia in the control room. This concentration is considerably below the value to which a person can be exposed without enduring harmful effects. The American Conference of Industrial Hygienists specifies that nearly all workers could be repeatedly exposed for a normal 8-hour work day and 40-hour work week, day after day, to 25 ppm of ammonia without suffering adverse effect. This concentration is called Threshold Limit Value-Time Weighted Average. The licensee requested to change the ammonia detector alarm/trip setpoint to 25 ppm. To justify this request the licensee provided an analysis indicating that with this modified detectability limit the control room operators will still have more than two minutes to don their breathing apparatus before the control room ammonia atmosphere reaches toxic

concentration (100 ppm). We have reviewed the licensee's analysis and performed our independent verification and find that the change of ammonia detectability limit to 25 ppm will not degrade the safety of the control room operators during an accidental release of ammonia. This request meets, therefore, the requirements of GDC 19.

### 3.0 SUMMARY

The staff has reviewed the licensee's justifications for requesting deletion of the hydrogen cyanide monitoring system and change of detection limit of the ammonia monitor from 3.5 ppm to 25 ppm. Based on this review the staff concludes that the licensee's justifications are acceptable and the requested amendments to TS 3.3.H.3 and TS Basis 3.3 will not cause unacceptable safety concerns.

### 4.0 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.

### 5.0 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 (57 FR 4485). 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.

### 6.0 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:  
K. Parczewski

Date: August 11, 1992

August 11, 1992

Mr. Stephen B. Bram  
Vice President, Nuclear Power  
Consolidated Edison Company  
of New York, Inc.  
Broadway and Bleakley Avenue  
Buchanan, New York 10511

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Sincerely,  
Original Signed By:  
Francis J. Williams, Jr., Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 157 to DPR-26
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cc w/enclosures:  
See next page

OFFICE	PDI-1:LA	PDI-1:PM	OGC	PDI-1:D	
NAME	CVogon <i>W</i>	<i>FW Williams:av1</i>	<i>Ward</i>	RACapra <i>RC</i>	
DATE	7/27/92	7/27/92	7/28/92	8/11/92	/ /

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FILENAME: A:\IP282575.AMD

*Concluded on  
change in SFR*