



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 29, 1994

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. M88862)

The Commission has issued the enclosed Amendment No.174 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 (TSs) in response to your application transmitted by letter dated January 28, 1994.

The amendment revises the TSs to change the containment isolation valve testing frequency and the acceptance criteria for the combined containment leakage rate to accommodate operation on a 24-month fuel cycle. These changes follow the guidance provided in Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle."

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.", written in dark ink.

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. 174to DPR-26
2. Safety Evaluation

cc w/enclosures:
See next page

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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

Ms. Donna Ross
New York State Energy Office
2 Empire State Plaza
16th Floor
Albany, New York 12223

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

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, New York 10511

Mr. Brent L. Brandenburg
Assistant General Counsel
Consolidated Edison Company
of New York, Inc.
4 Irving Place - 1822
New York, New York 10003

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, New York 10271

Mr. Peter Kokolakis, Director
Nuclear Licensing
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Mr. Walter Stein
Secretary - NFSC
Consolidated Edison Company
of New York, Inc.
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

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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:

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2. Safety Evaluation

cc w/enclosures:
 See next page

OFFICE	PDI-1:LA <i>aw</i>	PDI-1:APM <i>7-28-94</i>	NRR/SCSB	OGC NLO <i>M</i>	PDI-1:D
NAME	CVogan <i>on</i>	FWilliams:av1	RBarrett	M ZOBLEN <i>M</i>	MBoyle <i>MB</i>
DATE	6/23/94	6/23/94	7/11/94	7/12/94	7/29/94

OFFICIAL RECORD COPY
 FILENAME: G:\IP2\IP288862.AMD

DATED: July 29, 1994

AMENDMENT NO. 174 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

M. Boyle

C. Vogan

F. Williams

OGC

D. Hagan, 3302 MNBB

G. Hill (2), P1-22

C. Grimes, 11/F/23

ACRS (10)

OPA

OC/LFDCB

PD plant-specific file

C. Cowgill, Region I

R. Barrett, 8/H/7

cc: Plant Service list



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. 174
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 January 28, 1994, 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:

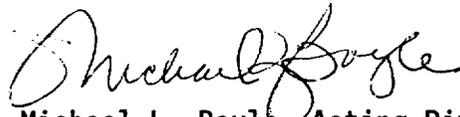
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 174, 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



Michael L. Boyle, 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 29, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 174

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Revise Appendix A as follows:

Remove Pages

4.1-1
4.4-3
4.4-4
4.4-9

Insert Pages

4.1-1
4.4-3
4.4-4
4.4-9

4.0 SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Interval Extension

Unless otherwise noted, each surveillance requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified interval. Excluded from this provision are the following surveillances whose intervals are solely defined by the applicable Technical Specification paragraphs and cannot be extended.

4.4A Integrated Leakage Rate

4.4B Sensitive Leakage Rate

4.13 Steam Generator Tube Inservice Inspection.

Basis

Specification 4.0.1 establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are specified to be performed at least once each Refueling Interval. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed once each Refueling Interval. Likewise, it is not the intent that Refueling Interval surveillances be performed during

3. Frequency

A sensitive leakage rate test shall be performed at a frequency of at least every other refueling but in no case at intervals of greater than 3 years.

C. AIR LOCK TESTS

1. The containment air locks shall be tested at a minimum pressure of 47 psig and at a frequency of every 6 months. The acceptance criteria is included in Specification 4.4.D.2.a.
2. Whenever containment integrity is required, verification shall be made of proper repressurization to at least 47 psig of the double-gasket air lock door seal upon closing an air lock door.

D. CONTAINMENT ISOLATION VALVES

1. Tests and Frequency

- a. Isolation valves in Table 4.4-1 shall be tested for operability at every Refueling Interval (R#).
- b. Isolation valves in Table 4.4-1 which are pressurized by the Weld Channel and Penetration Pressurization System shall be leakage tested as part of the Weld Channel and Penetration Pressurization System Test at every Refueling Interval (R#).
- c. Isolation valves in Table 4.4-1 which are pressurized by the Isolation Valve Seal Water System shall be tested at every Refueling Interval (R#) as part of an overall Isolation Valve Seal Water System Test.

- d. Isolation valves in Table 4.4-1 which are not pressurized will be tested at every Refueling Interval (R#).
- e. Isolation valves in Table 4.4-1 shall be tested with the medium and at the pressure specified therein.

2. Acceptance Criteria

- a. The combined leakage rate for the following shall be less than 0.5 L_a: isolation valves listed in Table 4.4-1 subject to gas or nitrogen pressurization testing, air lock testing as specified in Specification 4.4.C.1, portions of the sensitive leakage rate test described in Specification 4.4.B.1 which pertain to containment penetrations and double-gasketed seals.
 - b. The leakage rate into containment for the isolation valves sealed with the service water system shall not exceed 0.36 gpm per fan cooler.
 - c. The leakage rate for the Isolation Valve Seal Water System shall not exceed 14,700 cc/hr.
3. Containment isolation valves may be added to plant systems without prior license amendment to Table 4.4-1 provided that a revision to this table is included in a subsequent license amendment application.

E. CONTAINMENT MODIFICATIONS

Any major modification or replacement of components of the containment performed after the initial pre-operational leakage rate test shall be followed by either an integrated leakage rate test or a local leak detection test and shall meet the appropriate acceptance criteria of Specifications 4.4.A.2, 4.4.B.2, or 4.4.D.2. Modifications or replacements performed directly prior to the conduct of an integrated leakage rate test shall not require a separate test.

The testing of containment isolation valves in Table 4.4-1, either individually or in groups, utilizes the WC & PPS⁽⁴⁾ or IVSWS⁽⁵⁾ where appropriate and is in accordance with the requirements of Type C tests in Appendix J (issue effective date March 16, 1973) to 10 CFR 50, except for the surveillance frequency. The 25% increase in surveillance frequency allowed (from a maximum of 24 months to a maximum of 30 months) was compensated for by a proportionate increase in the margin between the specified allowable leakage and the maximum allowable leakage (the specified allowable leakage was decreased from $0.6 L_a$ to $0.5 L_a$). The specified test pressures are \geq the peak calculated accident pressure. Sufficient water is available in the Isolation Valve Seal Water System, Primary Water System, Service Water System, Residual Heat Removal System, and the City Water System to assure a sealing function for at least 30 days. The leakage limit for the Isolation Valve Seal Water System is consistent with the design capacity of the Isolation Valve Seal Water supply tank.

The acceptance criterion of $0.5 L_a$ for the combined leakage of isolation valves subject to gas or nitrogen pressurization, the air lock, containment penetrations and double-gasketed seals accounts for possible degradation of the containment leakage barriers for a 30 month test interval.

The 350 psig test pressure, achieved either by normal Residual Heat Removal System operation or hydrostatic testing, gives an adequate margin over the highest pressure within the system after a design basis accident. Similarly, the hydrostatic test pressure for the containment sump return line of 100 psig gives an adequate margin over the highest pressure within the line after a design basis accident. A recirculation system leakage of 2 gal./hr. will limit offsite exposures due to leakage to insignificant levels relative to those calculated for leakage directly from the containment in the design basis accident.

These specifications have been developed using Appendix J (issue effective date March 16, 1973) of 10 CFR 50 and ANSI N45.4-1972 "Leakage Rate Testing of Containment Structures for Nuclear Reactors" (March 16, 1972) for guidance.



UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 174 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 January 28, 1994, 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 (TSs). The requested changes would extend the surveillance intervals for leak testing the containment isolation valves to accommodate a 24-month fuel cycle. The proposed changes follow the guidance provided in Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle."

The licensee's submittal of January 28, 1994, also requested an exemption from Appendix J to 10 CFR Part 50, in accordance with the guidance provided in Enclosure 3 to GL 91-04. The NRC staff issued an environmental assessment in support of the requested exemption by letter dated May 6, 1994, and the exemption was issued by letter dated June 20, 1994. These actions were noticed in the Federal Register on May 13, 1994 (59 FR 25130) and June 29, 1994 (59 FR 33555), respectively.

2.0 EVALUATION

The limitations on containment leakage rates ensure that the total containment leakage value will not exceed the value assumed in the accident analysis at the peak accident pressure. As an added conservatism, the measured overall integrated leakage rate is further limited during the performance of periodic tests to account for possible degradation of the leakage barriers between leakage tests. Containment Isolation Valve (CIV) leak rate testing, containment penetration leak rate testing, and periodic inspection of accessible portions of the containment wall, combined with leakage monitoring afforded by the weld channel and penetration pressurization system and the isolation valve seal water system provide assurance that containment leakage remains within the design limits.

Surveillance testing for measuring leakage rates is delineated by 10 CFR Part 50, Appendix J, which requires, in part, CIV local leak rate tests (LLRTs) to be performed during each reactor shutdown for refueling but in no case at

intervals greater than 2 years. CIV LLRTs are referred to as Type C LLRTs. The licensee's TSs were consistent with the requirements of 10 CFR Part 50, Appendix J. By letter dated June 20, 1994, the NRC issued an exemption from the requirements of 10 CFR Part 50, Appendix J, which would allow the licensee to amend the TS to perform Type C LLRTs at intervals up to 30 months. The 30-month interval (24 months + 25% extension) is needed to accommodate operation on a 24-month fuel cycle. The following addresses the TS change required to conduct Type C LLRTs at intervals up to 30 months.

GL 91-04 indicated that two issues should be addressed to justify extending the 2-year LLRT interval: (1) a possible reduction in the combined leakage limit and (2) the basis for concluding that the containment leakage rate would be maintained within the acceptable limits with an LLRT interval increase of up to 30 months. The licensee addressed both of these issues.

The first issue is a reduction in the combined containment penetration and isolation valve leakage rate limit for Types B and C tests which increases the margin to the maximum allowable leakage rate. The maximum allowable leakage rate, which is referred to as L_a , is specified in the facility's TSs. The acceptance criterion for Types B and C leak rate tests is that the combined leakage rate shall be less than $0.60 L_a$. This constitutes a margin of $0.40 L_a$ (40% of L_a). Enclosure 3 to GL 91-04 states, in part, that in order to justify an exemption to the Appendix J requirements and extend Type C test intervals up to 30 months, licensees should either: (1) use leak rate test data to demonstrate that the margin of $0.40 L_a$ will not be reduced as a result of the test interval increase or (2) propose an acceptance criterion limit of less than $0.60 L_a$ as a TS change. The licensee has proposed an acceptance criterion limit of $0.50 L_a$ for IP2. This constitutes a 25 percent increase in margin (40 percent to 50 percent). The NRC staff has reviewed the proposed reduction in the combined leakage rate limit to $0.50 L_a$ and finds that it is consistent with the recommendations of Enclosure 3 to GL 91-04 and is, therefore, acceptable.

The second issue is the basis for concluding that containment leakage would be maintained within acceptable limits with a Type C test interval of up to 30 months. Eleven leak rate tests have been performed at IP2 since the beginning of commercial operation. The first three tests (1976, 1978, and 1979) did not meet the allowable leakage limit due to excessive leakage from several valves which were subsequently repaired and retested. The as-found results of the next eight tests were below the allowable leakage limit. The licensee has concluded that there has been a noticeable downward trend in the as-found valve leakage over the last 7 years. The as-found value for testing during the 1993 refueling outage was $0.093 L_a$. The staff has considered the test result information provided by the licensee and concluded that there is reasonable assurance that containment leakage rate would be maintained within acceptable limits with a Type C test interval of up to 30 months.

The staff has reviewed the information presented by the licensee regarding the containment isolation valve leakage testing and concludes that the requested change is 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. 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 (59 FR 17596). 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. Williams

Date: July 29, 1994