



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

February 23, 1993

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. M84991)

The Commission has issued the enclosed Amendment No. 161 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 November 12, 1992, as supplemented on January 25, 1993.

The amendment revises TS 4.12, Shock Suppressors (Snubbers), to specify a snubber visual inspection schedule which is in accordance with the guidance provided in Generic Letter 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions." The amendment also clarifies a previous administrative correction to TS 4.12.

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 J. 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. 161 to DPR-26
2. Safety Evaluation

cc w/enclosures:  
See next page

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PDR ADOCK 05000247  
P PDR

Handwritten initials "JFol" and the number "11" written below them.

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

Indian Point Nuclear Generating  
Station Units 1/2

cc:

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Regional Administrator, Region I  
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475 Allendale Road  
King of Prussia, Pennsylvania 19406

DATED: February 23, 1993

AMENDMENT NO. 161 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 (2), P1-22  
Wanda Jones, P-370  
C. Grimes, 11/F/23  
J. Norberg, 7/E/23  
ACRS (10)  
OPA  
OC/LFMB  
PD plant-specific file  
C. Cowgill, Region I

cc: Plant Service list

020062



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. 161  
License No. DPR-26

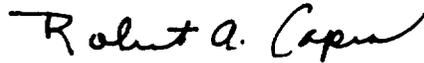
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Consolidated Edison Company of New York, Inc. (the licensee) dated November 12, 1992, as supplemented on January 25, 1993, complies with the standards and requirements of the Atomic Energy Act 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 161, 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: February 23, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 161

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Revise Appendix A as follows:

Remove Pages

4.12-1  
4.12-2  
4.12-3  
4.12-4  
4.12-5  
4.12-6  
-  
-

Insert Pages

4.12-1  
4.12-2  
4.12-3  
4.12-4  
4.12-5  
4.12-6  
4.12-7  
4.12-8

#### 4.12 SHOCK SUPPRESSORS (SNUBBERS)

##### Applicability

Applies to the inspection and testing of all hydraulic snubbers listed in Table 3.12-1.

##### Objective

To verify that snubbers will perform their design functions in the event of a seismic or other transient dynamic event.

##### Specifications

The following surveillance requirements apply to those snubbers listed in Table 3.12-1.

##### A. VISUAL INSPECTION

Snubbers whose seal material has been demonstrated by operating experience, laboratory testing, or analysis to be compatible with the operating environment shall be visually inspected to verify operability in accordance with the following schedule: The visual inspection interval for each type of snubber shall be determined based upon the criteria provided below and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before Amendment No. .

Size of Population or Category (Notes 1 & 2)	Number of Unacceptable Snubbers		
	Column A	Column B	Column C
	Extend Interval	Repeat Interval	Reduce Interval
	(Note 3)	(Note 4)	(Note 5)
1	0	0	1
20	0	0	1
40	0	0	1
60	0	0	1
80	0	0	2
90	0	0	3
100	0	1	4
120	0	1	5
130	0	2	6
140	0	2	7
150	0	3	8
160	0	3	9
170	0	3	10
180	1	4	11
190	1	4	12
200	2	5	13

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. This decision shall be made and documented before any inspection and shall be used as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. The next lower integer for the value of the limit for Columns A, B, and C shall be used if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

- Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.
- Note 4: If the number of unacceptable snubbers is equal to or less than the number of Column B, but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.
- Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C, but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Column B and C.
- Note 6: The provisions of Specification 4.0.1 are applicable for all inspection intervals.

Snubbers are categorized in Table 3.12-1 as accessible or inaccessible during reactor operation. These two groups may be inspected independently according to the above schedule except as noted below.

If snubber inoperability is identified due to excessive fluid leakage from the external tubing associated with the twenty-four snubbers installed at the steam generators, this group of snubbers may be inspected independently according to the above schedule.

Visual inspection shall verify that (1) there is no visual indication of damage or impaired operability, (2) attachments to the foundation or supporting structure are secure, and (3) in those locations where snubber movement can be manually induced without disconnecting the snubber, the snubber has freedom of movement and is not frozen. Snubbers which appear

inoperable as a result of visual inspection shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible, and (2) the affected snubber is functionally tested in the as-found condition and determined operable per Specification 4.12.C, as applicable. However, when a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable, and cannot be determined operable via functional testing for the purpose of establishing the next visual inspection period unless the test is started with the piston in the as-found setting, extending the piston rod in the tension mode direction. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the appropriate LCO action requirement shall be met.

B. FUNCTIONAL TESTING

1. Once each refueling outage a representative sample of 10% of all the safety-related hydraulic snubbers shall be functionally tested for operability, including verification of proper piston movement, lock-up rate and bleed. For each hydraulic snubber found inoperable, an additional 10% of the total installed of that type of hydraulic snubber shall be functionally tested. This additional testing will continue until no failures are found or until all snubbers of the same type have been functionally tested.

At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. the first snubber away from each reactor vessel nozzle,

2. snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.), and
3. snubbers within 10 feet of the discharge from a safety relief valve.

Snubbers identified as "Especially Difficult to Remove" or in "High-Radiation Zones During Shutdown" shall also be included in the representative samples.\* Table 3.12-1 shall be used as the basis for the sampling plan.

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and currently installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the re-sampling.

2. For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting its designed service.

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\* Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions.

3. If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated, and if found to be caused by a manufacturer or design deficiency, all snubbers of the same manufacturer and model which are susceptible to the same defect and located in a similar environment shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

C. FUNCTIONAL TEST ACCEPTANCE CRITERIA

The snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

D. RECORD OF SNUBBER SERVICE LIFE

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.n. Concurrently with the first visual inspection and at least once during every refueling outage, the installation and maintenance records for each snubber listed in Table 3.12-1 shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be re-evaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This re-evaluation, replacement, or reconditioning shall be indicated in the records.

## Basis

The visual inspection frequency is based upon maintaining a constant level of snubber protection. Performance of periodic visual inspections of snubbers complements the existing functional testing and provides additional confidence in snubber operability. The visual inspection interval for the snubbers is based on the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of the various populations or categories and may be as long as two refueling cycles with good overall visual inspection results. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible and verified operable by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, and are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

To further increase the assurance of snubber reliability, functional tests will be performed once each refueling cycle. Ten percent of the installed hydraulic snubbers represents an adequate sample for such tests. Selection of a representative sample of hydraulic snubbers provides a confidence level within acceptable limits that these supports will be in an operable condition. Observed failures of these sample snubbers shall require functional testing of additional units of the same type.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high-radiation area, in high-temperature area, etc.). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide a statistical basis for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operations.

#### Reference

- (1) Report: H. R. Erickson, Bergen Paterson to K. R. Goller, NRC, October 7, 1974; Subject: Hydraulic Shock Sway Arrestors
- (2) Generic Letter 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions."



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 161 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 November 12, 1992, as supplemented January 25, 1993, 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 revise TS 4.12, Shock Suppressors (Snubbers), to specify a snubber visual inspection schedule which is in accordance with the guidance provided in Generic Letter (GL) 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions." This amendment also clarifies a previous (Amendment 159) administrative correction to TS 4.12. As part of Amendment 159, a footnote to the original inspection interval table which stated that TS 1.10 was not applicable was deleted from the table; however, this deletion was not discussed in the amendment application. The staff's safety evaluation supporting issuance of Amendment 159 stated that administrative errors had been corrected but did not mention the footnote deletion specifically. The licensee's submittal of November 12, 1992, provided the basis for the deletion, i.e., TS 1.10 had been deleted by a previous amendment (Amendment 151, issued on April 30, 1990) and the footnote deletion should have been included in that amendment.

The January 25, 1993, letter submitted TS pages which had changed subsequent to the original November 12, 1992, amendment application due to issuance of Amendment 160. This January 25, 1993, submittal did not change the initial proposed no significant hazards consideration and was not outside of the scope of the original Federal Register notice.

2.0 EVALUATION

The TS impose surveillance requirements for functional testing and visual inspection of all safety-related snubbers. The objective of these surveillances is to ensure that the safety-related snubbers will perform their design function in the event of a seismic or other transient dynamic event. Functional testing provides assurance that an acceptable number of snubbers operate within specified limits. Visual examination is a separate process

that complements the functional testing program and provides additional confidence in snubber operability.

The licensee states that the current TS specifies a snubber visual inspection schedule for an 18-month operating cycle and does not take into account a 24-month operating cycle. In addition, the current schedule is based only on the number of inoperable snubbers found during the previous visual inspection and does not take into account the size of the snubber population inspected. This situation is applicable to a number of licensees. To alleviate this situation, on December 11, 1990, the NRC staff issued GL 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions." In the generic letter, the staff developed an alternative schedule for snubber visual inspections that maintains the same confidence level as the existing schedule. The alternative inspection schedule is based on the number of unacceptable snubbers found during the previous inspection in proportion to the size of the specific snubber population or category inspected. In addition, the alternative inspection interval is based on an operating cycle of up to 24-months and may be as long as 48 months, depending on the number of unacceptable snubbers found during the previous visual inspection.

The licensee's submittal states that the proposed changes are in accordance with the guidance provided in GL 90-09. Specifically, the licensee's proposed changes specify a schedule for visual inspection of snubbers that is based on the number of unacceptable snubbers found during the previous inspection, the total population or category size for each snubber type, and the previous inspection interval. The submittal also states that the proposed inspection interval is applicable to a 24-month operating cycle and the interval may be increased to every other refueling outage (48 months), as long as good overall visual inspection results are obtained. The staff has reviewed the licensee's proposed TS changes and has concluded that the changes are in accordance with the guidance provided in GL 90-09. Therefore, the staff finds the proposed changes 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 (57 FR 61110). 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:  
Francis J. Williams, Jr.

Date: February 23, 1993

February 23, 1993

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. M84991)

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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,  
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. 161 to DPR-26
- 2. Safety Evaluation

cc w/enclosures:

See next page

OFFICE	PDI-1:LA	PDI-1:PM	NRR/EMEB	OGC NLO M	PDI-1:D
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DATE	1/28/93	1/28/93	1/28/93	2/1/93	2/13/93

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*Subject  
to minor  
editorial change*