

ATTACHMENT A

Technical Specification

Page Revisions

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
May, 1984

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3.12 SHOCK SUPPRESSORS (SNUBBERS)

Applicability

Applies to the operability of snubbers required for protection of safety-related components.

Objective

To define the time during which reactor operation is permitted after detection of inoperable snubbers.

Specificaton

1. All snubbers listed in Table 3.12-1 which are located on systems required for the current mode of operation, shall be operable*.

Snubbers may be added to safety related systems without prior License Amendment to Table 3.12-1 provided that a revision to Table 3.12-1 is included with the next License Amendment request.

2. During power operation, the requirements of 3.12.1 may be modified to allow one or more snubbers to be inoperable subject to the following conditions:

- a) The inoperable snubber must be restored to service within 72 hours or the reactor shall be placed in the cold shutdown condition within the succeeding 36 hours.

- b) Either of the following must be performed:

- i. An engineering evaluation shall be performed on the supported components within 72 hours of the discovery of the inoperable snubber(s) to determine if the snubber(s) failure has imparted a physical degradation on the supported system. If the supported system is declared inoperable as a result of the evaluation, the appropriate action statement shall be followed.

or

- ii. The supported system shall be declared inoperable within 72 hours of the discovery of the inoperable snubber(s) and appropriate action statements must be followed. If the snubber(s)

* Snubber(s) taken out of service for maintenance and testing shall be considered inoperable unless returned to service within 72 hours.

is repaired or replaced, an engineering evaluation shall be performed on the supported components prior to declaring the system operable.

3. During cold shutdown or refueling, the requirements of 3.12.1 may be modified to allow one or more snubbers to be inoperable subject to the following conditions:
 - a) The requirements of 3.12.2.b must be met.
 - b) Snubbers declared inoperable during cold shutdown or refueling shall be made operable or replaced prior to bringing the reactor above cold shutdown.

Basis

Snubbers are required to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping in the event of dynamic loads. It is therefore required that all snubbers required to protect the primary coolant systems or any other safety system or component be operable during reactor operation. Because the snubber protection is required only during low-probability events, a period of 72 hours is allowed for repairs or replacements. Also within that 72 hour period, an engineering evaluation must be performed on the supported system to determine if the snubber(s) failure has imparted a physical degradation on the supported system. If necessary the appropriate action for the system in the Technical Specification shall be taken. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Specification 3.12.3.b prohibits startup if snubbers are known to be inoperable.

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.

Specification

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

A. Visual Inspection

All hydraulic 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:

Number of Snubbers Found Inoperable During Inspection or During Inspection Interval	Next Required Visual Inspection Interval
0	18 months +25%
1	12 months +25%
2	6 months +25%
3,4	124 days +25%
5,6,7	62 days +25%
≥8	31 days +25%

The required inspection interval shall not be lengthened more than one step at a time.

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.

In addition, 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 (1) that 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, that the snubber has freedom of movement and is not frozen. Snubbers which appear inoperable as a result of visual inspection may be determined operable for the purpose of establishing the next visual inspection interval, providing 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. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

B. Functional Testing

1. Once each refueling cycle, a representative sample of 10 hydraulic snubbers or 10% of the hydraulic snubbers whichever is less, 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 hydraulic snubbers or 10% of the remaining hydraulic snubbers, whichever is less shall be so 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.

Hydraulic snubbers of rated capacity greater than 50,000 lbs. shall be exempted from the functional testing requirements.

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 insure that the supported component remains capable of meeting its designed service.

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.m. Concurrent 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.

* The documentation referred to herein is required for all snubbers beginning with those replaced following the issuance of this amendment.

Basis

All safety related hydraulic snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate hydraulic fluid level and proper attachment of snubber to piping and structures. The inspection frequency is based upon maintaining a constant level of snubber protection. Thus the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. 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 (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule. Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment.

To further increase the assurance of snubber reliability functional tests will be performed once each refueling cycle. These tests will include stroking of the snubbers to verify proper piston movement, lock-up rate and bleed. Ten hydraulic snubbers or ten percent whichever is less, represents an adequate sample for such tests. Observed failures on these samples will require testing of additional units. Snubbers of rated capacity greater than 50,000 lbs. are exempt from the functional testing requirements because of the impracticability of testing such large units.

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 insure 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

RECORD RETENTION (Continued)

- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or review of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the SNSC and the NFSC.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.
- m. *Records of the service lives of all snubbers listed in Table 3.12-1 including the date at which the service life commences and associated installation and maintenance records.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 As an acceptable alternate to the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20:

- a. Each High Radiation Area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit and any individual or group of individuals permitted to enter such

* The documentation referred to herein is required for all snubbers beginning with those replaced following the issuance of this amendment.

ATTACHMENT B

Safety Assessment

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
May, 1984

Safety Assessment

By a letter dated November 20, 1980, the NRC requested all power reactor licensees to propose technical specification revisions to incorporate the applicable portions of the Standard Technical Specifications on snubber surveillance.

The proposed technical specification changes are contained in Attachment A to this Application. These changes involve clarifying the inservice surveillance and testing of snubbers. It will also implement engineering evaluations on components that are supported by the inoperable snubber(s).

The NRC has provided guidance concerning the application of 10 CFR 50.92 by providing examples of amendments that are likely not to involve a significant hazards consideration. These were published in the Federal Register on April 6, 1983 (48 FR 14870). One of the examples (example II) involving no significant hazards considerations relates to changes that constitute additional limitations, restrictions, or controls not presently included in the technical specifications; i.e., more stringent surveillance requirements.

The change in the snubber surveillance requirements is to more closely conform to the Standard Technical Specification and thus is encompassed by example (II) provided by the Commission.

Therefore since the application for the amendment involves changes that are similar to examples which are not likely to involve significant hazards considerations, we have determined that the application does not involve a significant hazards consideration.

The proposed changes have been reviewed by both the Station Nuclear Safety Committee and the Nuclear Facilities Safety Committee. Both committees concur that the proposed changes do not represent a significant hazards consideration and will not cause any changes in the types or an increase in the amounts of effluents or any changes in the authorized power level of the facility.