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

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Power Authority of the State of New York (the licensee) dated August 23, 1988, 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-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 83 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects, I/II

Attachment:
Changes to the Technical Specifications

Date of Issuance: March 1, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 83

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages	Insert Pages
ii	ii
iii	iii
v	v
3.13-1	3.13-1
3.13-2	3.13-2
3.13-3	3.13-3
4.11-1	4.11-1
4.11-2	4.11-2
4.11-3	4.11-3
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3.13 SAFETY-RELATED 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.

Specification

1. During any mode of operation for which a safety-related system is required to be operable, the snubbers in such systems shall be OPERABLE except as noted in 3.13.2 and 3.13.3 below. The requirements of snubber operability shall be satisfied within 7 days for the residual heat removal system when the unit is in cold shutdown and snubbers are being removed for scheduled testing or routine maintenance.

2. If one or more safety-related snubbers are determined to be inoperable in a system which at that time is required to be operable, then within 72 hours, perform section 3.13.2.a and 3.13.2.b:

   a.(1)Replace or restore the inoperable snubber(s) to OPERABLE status,

   or

   (2)perform an engineering evaluation which shows that the inoperable snubber is not required.

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* Safety-related snubbers include those snubbers installed on safety-related systems and snubbers on non safety-related systems if their failure or the failure of the system on which they are installed would have an adverse effect on any safety-related system.

b. Perform an engineering evaluation per Technical Specification 4.11.B.4 on the supported system or component.

If the requirements of section 3.13.2 cannot be met or the results of the applicable evaluations performed by section 3.13.2 are unacceptable, then the supported system shall be declared inoperable and the appropriate limiting condition for operation action statement for that system shall be followed. If an engineering evaluation demonstrates that the component or system is still operable, i.e., not degraded by the inoperability of the subject snubber(s), the supported system or component need not be declared inoperable.

3. If one or more safety-related snubbers, are determined to be inoperable in a system which at that time is <u>not</u> required to be OPERABLE, then prior to bringing the reactor to that condition for which such system is required to be operable, perform sections 3.13.3.a and 3.13.3.b:

a.(1) Replace or restore the inoperable snubbers(s) to OPERABLE status,

or

(2) perform an engineering evaluation which shows that the inoperable snubber is not required.

b. Perform an engineering evaluation per Technical Specification 4.11.B.4 on the supported system or component.

If the requirements of section 3.13.3 cannot be met or the results of the applicable evaluations performed by section 3.13.3. are unacceptable, then the supported system shall be declared inoperable and the appropriate limiting condition for operation action statement for that affected system shall be followed. If an engineering evaluation demonstrates that the component or system is still operable, i.e., not degraded by the inoperability of the subject snubber(s), the supported system or component need not be declared inoperable.

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. The consequences of an inoperable snubber can be an increase in the probability of structural damage to piping in the event of dynamic or thermal loads. It is therefore required that snubbers necessary to protect the primary coolant system or any other safety system or component be operable. Because the snubber lockup protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements before the system must be declared inoperable unless an engineering evaluation can prove otherwise. The engineering evaluations from items 3.13.2.a.(2) and 3.13.3.a.(2) shall determine whether or not the operability of a system or component may be affected by eliminating a redundant inoperable snubber. The engineering evaluations from paragraphs 3.13.2.b and 3.13.3.b shall determine if the system or component supported by a failed snubber experienced degradation that would prevent the system or component from performing its intended function in its intended manner assuming that the required action statements of sections 3.13.2.a and 3.13.3.a were performed as necessary.

References

1) Generic Letter 84-13, "Technical Specifications For Snubbers"

4.11 SAFETY-RELATED SHOCK SUPPRESSORS (SNUBBERS)

Applicability

Applies to the periodic inspection and testing requirements for all safety-related hydraulic snubbers that are required to protect the primary coolant system or any other safety-related system or component.

Objective

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

Specification

A. Visual Inspection

1. Safety-related snubbers shall be visually inspected in accordance with the following schedule:

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period *#
0	18 months ±25%
1	12 months ±25%
2	6 months ±25%
3,4	124 days ±25%
5,6,7	62 days ±25%
8 or more	31 days ±25%

These snubbers may be categorized into two groups: those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

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* The inspection interval may not be extended more than one step at a time.

\# The provisions of Section 1.12 of the Technical Specifications are not applicable.

2. Visual inspection shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundations or supporting structure are secure. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for the 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 4.11.B.5 However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable via functional testing for the purpose of establishing the next visual inspection period. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

B. Functional Testing

1. At least one per 18 month during plant shutdown, a representative sample of 10% of all the safety-related hydraulic snubbers shall be functionally tested for operability, either in place on an bench test. For each snubber that does not meet the requirement of 4.11.B.5, 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. The representative sample shall include each size and type of snubber in use in the plant.

2. The representative sample selected for functional testing should include the various configurations, operating environments, sizes and capacities of snubbers. At least 25% or the maximum possible if less than 25%, of the snubbers in the representative sample should include snubbers from the following three categories:

   a. The first snubber away from each reactor vessel nozzle.

b. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.).

c. Snubbers within 10 feet of the discharge from a safety or relief valve.

Snubbers identified as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative samples*.

Snubber selection for functional testing is developed from an engineering evaluation and is based on a rotating basis. In addition to the regular sample, snubber locations 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 previously failed snubber (if it is repaired and currently installed in another position) and the installed spare snubber shall be retested. Test results of these snubbers may not be included for the sampling required by Specification 4.11.B.1.

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 caused by manufacturer or design deficiency all snubbers of the same manufacturer and model, subject to the same defect and located in a similar environment, shall be functionally tested.

4. 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 inoperable snubber(s) remain capable of performing their intended function in their intended manner after the action statements of Specification 3.13.2.a or 3.13.3.a were performed as necessary.

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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.

5. The hydraulic snubber functional test shall verify that:

   a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

   b. 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.

C. Snubber Service Life Monitoring

1. A record of the service life of each snubber, the date at which the designated service life commences, as well as the installation and maintenance records on which the designated service life is based shall be maintained as required by specification 6.10.2.o. The service life may be modified based on a performance evaluation.

2. At least once per operating cycle the installation and maintenance records for each safety-related snubber 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 reevaluated 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 to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before the interval has elapsed may be used as a new reference point to determine the next scheduled 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. The results of random inspections of individual snubbers, conducted at other than scheduled inspection intervals, will be evaluated on a case-by-case basis to determine if they should impact the scheduled interval.

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.

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 by determining if the system or component was exposed to a dynamic transient which required the inoperable snubber to mitigate the transient.

To provide assurance of snubber functional reliability, a representative sample of 10% of the installed snubbers will be functionally tested during plant shutdowns. The representative sample selected for functional testing includes various configurations, operating environments, locations and the range of size and capacity of snubbers. An engineering evaluation which addresses snubber performance environments and history selects the representative sample which is based on a rotating basis. 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.

If a snubber fails a functional test, that snubber location will be retested during the next snubber testing period to determine if the failure was environmentally caused. If the failed snubber was repaired and re-installed elsewhere in the system, during the functional test effort the snubber will be retested during the next testing period to verify if the repair addressed the cause of a failure. If a failed snubber is repaired and not reinstalled in the system during the functional test effort it shall be retested before it is subsequently installed in the system as added assurance that the repair addressed the cause of failure. The results of these augmented testing efforts are intended to address previous failure modes and these test results (passing or failure) may not be included in the specification 4.11.B.1 sample selection.

The service life of a snubber is evaluated via engineering evaluation, test data, service data, manufacturer input, snubber service conditions and snubber service history (newly installed snubber, seal replaced, spring replaced, in high radiation area, 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 statistical bases 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 operation.

References

1) Generic Letter 84-13, "Technical Specifications For Snubbers"

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 transient cycles.

g. Records of training and qualifications 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 reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the PORC and the SRC.

l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.

m. Records of secondary water sampling and water quality.

n. Records of analyses required by the radiological environmental monitoring program that would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and records showing that these procedures were followed.

o. Records of service lives of all safety-related hydraulic snubbers including the date at which the service life commences and associated installation and maintenance records.

6.11 RADIATION AND RESPIRATORY PROTECTION PROGRAM

6.11.1 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 as to maintain exposures as far below the limits specified in 10 CFR Part 20 as reasonable achievable. Pursuant to 10 CFR 20.103 allowance shall be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this plant in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1 of 10 CFR 20.

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POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Power Authority of the State of New York (the licensee) dated August 23, 1988, 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-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 83 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects, I/II

Attachment:
Changes to the Technical Specifications

Date of Issuance: March 1, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 83

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages	Insert Pages
ii	ii
iii	iii
v	v
3.13-1	3.13-1
3.13-2	3.13-2
3.13-3	3.13-3
4.11-1	4.11-1
4.11-2	4.11-2
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Table 3.13-1 (Sheets 1 thru 8)	-

LIST OF TABLES

3.13 SAFETY-RELATED 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.

Specification

1. During any mode of operation for which a safety-related system is required to be operable, the snubbers in such systems shall be OPERABLE except as noted in 3.13.2 and 3.13.3 below. The requirements of snubber operability shall be satisfied within 7 days for the residual heat removal system when the unit is in cold shutdown and snubbers are being removed for scheduled testing or routine maintenance.

2. If one or more safety-related snubbers are determined to be inoperable in a system which at that time is required to be operable, then within 72 hours, perform section 3.13.2.a and 3.13.2.b:

   a.(1)Replace or restore the inoperable snubber(s) to OPERABLE status,

   or

   (2)perform an engineering evaluation which shows that the inoperable snubber is not required.

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* Safety-related snubbers include those snubbers installed on safety-related systems and snubbers on non safety-related systems if their failure or the failure of the system on which they are installed would have an adverse effect on any safety-related system.

b. Perform an engineering evaluation per Technical Specification 4.11.B.4 on the supported system or component.

If the requirements of section 3.13.2 cannot be met or the results of the applicable evaluations performed by section 3.13.2 are unacceptable, then the supported system shall be declared inoperable and the appropriate limiting condition for operation action statement for that system shall be followed. If an engineering evaluation demonstrates that the component or system is still operable, i.e., not degraded by the inoperability of the subject snubber(s), the supported system or component need not be declared inoperable.

3. If one or more safety-related snubbers, are determined to be inoperable in a system which at that time is <u>not</u> required to be OPERABLE, then prior to bringing the reactor to that condition for which such system is required to be operable, perform sections 3.13.3.a and 3.13.3.b:

a.(1) Replace or restore the inoperable snubbers(s) to OPERABLE status,

or

(2) perform an engineering evaluation which shows that the inoperable snubber is not required.

b. Perform an engineering evaluation per Technical Specification 4.11.B.4 on the supported system or component.

If the requirements of section 3.13.3 cannot be met or the results of the applicable evaluations performed by section 3.13.3. are unacceptable, then the supported system shall be declared inoperable and the appropriate limiting condition for operation action statement for that affected system shall be followed. If an engineering evaluation demonstrates that the component or system is still operable, i.e., not degraded by the inoperability of the subject snubber(s), the supported system or component need not be declared inoperable.

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. The consequences of an inoperable snubber can be an increase in the probability of structural damage to piping in the event of dynamic or thermal loads. It is therefore required that snubbers necessary to protect the primary coolant system or any other safety system or component be operable. Because the snubber lockup protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements before the system must be declared inoperable unless an engineering evaluation can prove otherwise. The engineering evaluations from items 3.13.2.a.(2) and 3.13.3.a.(2) shall determine whether or not the operability of a system or component may be affected by eliminating a redundant inoperable snubber. The engineering evaluations from paragraphs 3.13.2.b and 3.13.3.b shall determine if the system or component supported by a failed snubber experienced degradation that would prevent the system or component from performing its intended function in its intended manner assuming that the required action statements of sections 3.13.2.a and 3.13.3.a were performed as necessary.

References

1) Generic Letter 84-13, "Technical Specifications For Snubbers"

4.11 SAFETY-RELATED SHOCK SUPPRESSORS (SNUBBERS)

Applicability

Applies to the periodic inspection and testing requirements for all safety-related hydraulic snubbers that are required to protect the primary coolant system or any other safety-related system or component.

Objective

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

Specification

A. Visual Inspection

1. Safety-related snubbers shall be visually inspected in accordance with the following schedule:

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period *=
0	18 months ±25%
1	12 months ±25%
2	6 months ±25%
3,4	124 days ±25%
5,6,7	62 days ±25%
8 or more	31 days ±25%

These snubbers may be categorized into two groups: those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

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* The inspection interval may not be extended more than one step at a time.

\# The provisions of Section 1.12 of the Technical Specifications are not applicable.

2. Visual inspection shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundations or supporting structure are secure. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for the 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 4.11.B.5 However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable via functional testing for the purpose of establishing the next visual inspection period. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

B. Functional Testing

1. At least one per 18 month during plant shutdown, a representative sample of 10% of all the safety-related hydraulic snubbers shall be functionally tested for operability, either in place on an bench test. For each snubber that does not meet the requirement of 4.11.B.5, 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. The representative sample shall include each size and type of snubber in use in the plant.

2. The representative sample selected for functional testing should include the various configurations, operating environments, sizes and capacities of snubbers. At least 25% or the maximum possible if less than 25%, of the snubbers in the representative sample should include snubbers from the following three categories:

   a. The first snubber away from each reactor vessel nozzle.

b. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.).

c. Snubbers within 10 feet of the discharge from a safety or relief valve.

Snubbers identified as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative samples*.

Snubber selection for functional testing is developed from an engineering evaluation and is based on a rotating basis. In addition to the regular sample, snubber locations 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 previously failed snubber (if it is repaired and currently installed in another position) and the installed spare snubber shall be retested. Test results of these snubbers may not be included for the sampling required by Specification 4.11.B.1.

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 caused by manufacturer or design deficiency all snubbers of the same manufacturer and model, subject to the same defect and located in a similar environment, shall be functionally tested.

4. 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 inoperable snubber(s) remain capable of performing their intended function in their intended manner after the action statements of Specification 3.13.2.a or 3.13.3.a were performed as necessary.

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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.

5. The hydraulic snubber functional test shall verify that:

   a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

   b. 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.

C. Snubber Service Life Monitoring

1. A record of the service life of each snubber, the date at which the designated service life commences, as well as the installation and maintenance records on which the designated service life is based shall be maintained as required by specification 6.10.2.o. The service life may be modified based on a performance evaluation.

2. At least once per operating cycle the installation and maintenance records for each safety-related snubber 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 reevaluated 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 to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before the interval has elapsed may be used as a new reference point to determine the next scheduled 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. The results of random inspections of individual snubbers, conducted at other than scheduled inspection intervals, will be evaluated on a case-by-case basis to determine if they should impact the scheduled interval.

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.

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 by determining if the system or component was exposed to a dynamic transient which required the inoperable snubber to mitigate the transient.

To provide assurance of snubber functional reliability, a representative sample of 10% of the installed snubbers will be functionally tested during plant shutdowns. The representative sample selected for functional testing includes various configurations, operating environments, locations and the range of size and capacity of snubbers. An engineering evaluation which addresses snubber performance environments and history selects the representative sample which is based on a rotating basis. 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.

If a snubber fails a functional test, that snubber location will be retested during the next snubber testing period to determine if the failure was environmentally caused. If the failed snubber was repaired and re-installed elsewhere in the system, during the functional test effort the snubber will be retested during the next testing period to verify if the repair addressed the cause of a failure. If a failed snubber is repaired and not reinstalled in the system during the functional test effort it shall be retested before it is subsequently installed in the system as added assurance that the repair addressed the cause of failure. The results of these augmented testing efforts are intended to address previous failure modes and these test results (passing or failure) may not be included in the specification 4.11.B.1 sample selection.

The service life of a snubber is evaluated via engineering evaluation, test data, service data, manufacturer input, snubber service conditions and snubber service history (newly installed snubber, seal replaced, spring replaced, in high radiation area, 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 statistical bases 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 operation.

References

1) Generic Letter 84-13, "Technical Specifications For Snubbers"

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 transient cycles.

g. Records of training and qualifications 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 reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of meetings of the PORC and the SRC.

l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.

m. Records of secondary water sampling and water quality.

n. Records of analyses required by the radiological environmental monitoring program that would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and records showing that these procedures were followed.

o. Records of service lives of all safety-related hydraulic snubbers including the date at which the service life commences and associated installation and maintenance records.

6.11 RADIATION AND RESPIRATORY PROTECTION PROGRAM

6.11.1 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 as to maintain exposures as far below the limits specified in 10 CFR Part 20 as reasonable achievable. Pursuant to 10 CFR 20.103 allowance shall be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this plant in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1 of 10 CFR 20.