Dominion Nuclear Connecticut, Inc.
5000 Dominion Boulevard, Glen Allen, Virginia 23060
Web Address: www.dom.com

Dominion®

September 21, 2011

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 11-354
NSSL/MLC R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSE AMENDMENT REQUEST TO REVISE SNUBBER SURVEILLANCE REQUIREMENTS

In accordance with the provisions of 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) is submitting a license amendment request to revise Technical Specification (TS) 3/4.7.8, "Snubbers," for Millstone Power Station Unit 2 (MPS2). The proposed change would revise the TS surveillance requirements for snubbers to conform to the revised MPS2 inservice inspection (ISI) program.

Attachment 1 to this letter describes the proposed changes and provides justification for the changes. Attachment 2 provides the marked-up TS pages. Marked-up TS Bases pages are provided in Attachment 3 for information only. Attachment 4 contains a detailed comparison of the current surveillance requirements in TS 4.7.8 to the revised ISI program requirements and justification of the changes. Attachment 5 provides a copy of the MPS2 snubber program.

The proposed amendment does not involve a Significant Hazards Consideration under the standards set forth in 10 CFR 50.92. The Facility Safety Review Committee has reviewed and concurred with the determinations herein.

Issuance of this amendment is requested by September 21, 2012. Once approved, the amendment will be implemented within 60 days.

In accordance with 10 CFR 50.91(b), a copy of this license amendment request is being provided to the State of Connecticut.

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NRR

Should you have any questions in regard to this submittal, please contact Ms. Wanda Craft at (804) 273-4687.

Sincerely,

J. Alan Price
Vice President – Nuclear Engineering

VICKI L. HULL
Notary Public
Commonwealth of Virginia
140542
My Commission Expires May 31, 2014

COMMONWEALTH OF VIRGINIA
COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by J. Alan Price, who is Vice President – Nuclear Engineering of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 21ST day of September, 2011.

My Commission Expires: May 31, 2014
Notary Public Vicki L. Hull

Attachments:

1. Evaluation of Proposed License Amendment
2. Marked-Up Technical Specification Pages
3. Marked-Up Technical Specification Bases Pages
4. Comparison of Current TS Requirements to Revised ISI Program Requirements
5. U2-24-SNUB-BAP01, Snubber Examination, Testing, and Service Life Monitoring Program Plan

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission
Region I Regional Administrator
475 Allendale Road
King of Prussia, PA 19406-1415

C. J. Sanders
NRC Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 08B3
11555 Rockville Pike
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Millstone Power Station

Director, Radiation Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

ATTACHMENT 1

EVALUATION OF PROPOSED LICENSE AMENDMENT

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

EVALUATION OF PROPOSED LICENSE AMENDMENT

1.0 INTRODUCTION

In accordance with the provisions of 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) is submitting a license amendment request to revise Technical Specification (TS) 3/4.7.8, "Snubbers," for Millstone Power Station Unit 2 (MPS2). The proposed change would revise the TS surveillance requirements for snubbers to conform to the revised MPS2 inservice inspection (ISI) program.

2.0 PROPOSED CHANGES

The proposed changes to the MPS2 TSs are summarized below:

- Reference to Specification 4.7.8.d in TS ACTION 3.7.8 would be replaced with reference to Specification 4.7.8.

- TS Surveillance Requirement (SR) 4.7.8 would be revised to remove specific surveillance requirements for demonstrating snubber operability. The current requirements would be replaced by a reference to the "Snubber Examination, Testing, and Service Life Monitoring Program."

- A new TS Section 6.28, "Snubber Examination, Testing, and Service Life Monitoring Program," would be added to the Administrative Controls section (Section 6.0) of the TSs to provide a description of the snubber program.

Mark-ups of the proposed TS pages are provided in Attachment 2. TS Bases markups are provided in Attachment 3 for information only. A comparison of the current SR 4.7.8 requirements to the revised ISI program requirements and justification of the changes are provided in Attachment 4. Attachment 5 contains the Snubber Examination, Testing, and Service Life Monitoring Program. Implementation of this program will occur coincident with implementation of the approved license amendment.

3.0 BACKGROUND

MPS2 is currently in the fourth 10-year ISI interval. The fourth 10-year ISI interval at MPS2 began on April 1, 2010 (References 8.1 and 8.2). Currently, snubber testing and examination are performed in accordance with the specific requirements of TS 3/4.7.8 and the requirements contained in American Society of Mechanical Engineers

(ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2004 Edition. Conformance to both the TSs and the Code is currently required.

10 CFR 50.55a(g)(4)(ii) requires that inservice examination of components conducted during successive 120-month inspection intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) 12 months before the start of the 120-month inspection interval. If a revised ISI program for a facility conflicts with the TSs for the facility, 10 CFR 50.55a(g)(5)(ii) requires licensees to apply to the Commission for amendment of the TSs to conform the TSs to the revised program.

For MPS2, the examination and testing of snubbers is performed in accordance with the optional criteria of 10 CFR 50.55a(b)(3)(v). This permits the use of OM Code Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants," 2004 Edition, in place of the requirements for snubbers in the Boiler and Pressure Vessel Code (BPV Code), Section XI, Articles IWF-5200(a) and (b) and IWF-5300(a) and (b). 10 CFR 50.55a(b)(3)(v) also requires that when using this alternative, preservice and inservice examination of snubbers must be performed using the VT-3 method specified in IWA-2213.

The purpose of this amendment request is to remove the specific surveillance requirements for demonstrating snubber operability from the TS since the ISI program has been revised to include the requirements of the OM Code Subsection ISTD in the Snubber Examination, Testing and Service Life Monitoring Program. As such, the proposed changes to TS 3/4.7.8 are necessary to conform the TSs to the revised ISI program.

4.0 TECHNICAL ANALYSIS

Licensees are required by 10 CFR 50.55a(g) or 10 CFR 50.55a(b)(3)(v) to perform the ISI and testing of snubbers in accordance with ASME BPV Code, Section XI or the OM Code and the applicable addenda, except where the NRC has granted specific written relief pursuant to 10 CFR 50.55a(g)(6)(i), or authorized alternatives pursuant to 10 CFR 50.55a(a)(3). 10 CFR 50.55a(a)(3) states that licensees may use alternatives to the requirements of 10 CFR 50.55a(g) when authorized by the NRC if (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

As noted in Regulatory Issue Summary 2010-06 (Reference 8.3), licensees have the option to control the ASME Code-required ISI and testing of snubbers through their TSs. For plants using their TSs to govern ISI and testing of snubbers, 10 CFR 50.55a(g)(5)(ii) requires that if a revised ISI program for a facility conflicts with the

TSs, the licensee shall apply to the Commission for amendment of the TSs to conform the TSs to the revised program. Therefore, when performing 120-month program updates in accordance with 10 CFR 50.55a(g)(4), licensees must submit any required amendments to ensure their TSs remain consistent with the new code of record or NRC-approved alternatives used in lieu of the Code requirements. The TSs governing the snubber ISI and testing program do not eliminate the 10 CFR 50.55a requirements to update the program at 120-month intervals, in accordance with 10 CFR 50.55a(g)(4), or requirements to request and receive NRC authorization for alternatives to the Code requirements, when appropriate.

The proposed change replaces the specific TS requirements for snubber examination, testing and service life monitoring with a reference to the Snubber Examination, Testing and Service Life Monitoring Program, thereby ensuring the TSs are consistent with the ISI program.

Snubbers will continue to be demonstrated OPERABLE by performance of the Snubber Examination, Testing and Service Life Monitoring Program. This program will be required to be maintained in compliance with 10 CFR 50.55a per the new proposed TS 6.28. The program for ISI and testing of snubbers in accordance with ASME BPV Code, Section XI or the OM Code and the applicable addenda as required by 10 CFR 50.55a(g) is required to include evaluation of supported components/systems when snubbers are found to be unacceptable.

The proposed change to TS ACTION 3.7.8 for inoperable snubbers is administrative in nature and is required for consistency with the proposed change to SR 4.7.8.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

The NRC has provided standards for determining whether a significant hazards consideration (SHC) exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; or 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

DNC has evaluated whether or not a significant hazards consideration is involved with the proposed change. A discussion of these standards as they relate to this change request is provided below.

Criterion 1
Will operation of the facility in accordance with the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes would revise SR 4.7.8 to conform the TSs to the revised ISI program for snubbers. Snubber examination, testing and service life monitoring will continue to meet the requirements of 10 CFR 50.55a(g) except where the NRC has granted specific written relief, pursuant to 10 CFR 50.55a(g)(6)(i), or authorized alternatives pursuant to 10 CFR 50.55a(a)(3).

Snubber examination, testing and service life monitoring is not an initiator of any accident previously evaluated. Therefore, the probability of an accident previously evaluated is not significantly increased.

Snubbers will continue to be demonstrated OPERABLE by performance of a program for examination, testing and service life monitoring in compliance with 10 CFR 50.55a or authorized alternatives. The proposed change to TS ACTION 3.7.8 for inoperable snubbers is administrative in nature and is required for consistency with the proposed change to SR 4.7.8. Therefore, the proposed change does not adversely affect plant operations, design functions or analyses that verify the capability of systems, structures, and components to perform their design functions. The consequences of accidents previously evaluated are not significantly increased.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2
Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes do not involve any physical alteration of plant equipment. The proposed changes do not change the method by which any safety-related system performs its function. As such, no new or different types of equipment will be installed, and the basic operation of installed equipment is unchanged. The methods governing plant operation and testing remain consistent with current safety analysis assumptions.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3
Will operation of the facility in accordance with this proposed change involve a significant reduction in the margin of safety?

Response: No.

The proposed changes ensure snubber examination, testing and service life monitoring will continue to meet the requirements of 10 CFR 50.55a(g) except where the NRC has granted specific written relief, pursuant to 10 CFR 50.55a(g)(6)(i), or authorized alternatives pursuant to 10 CFR 50.55a(a)(3). Snubbers will continue to be demonstrated OPERABLE by performance of a program for examination, testing and service life monitoring in compliance with 10 CFR 50.55a or authorized alternatives. The proposed change to TS ACTION 3.7.8 for inoperable snubbers is administrative in nature and is required for consistency with the proposed change to SR 4.7.8.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Conclusion
Based on the above, DNC concludes that the proposed changes do not represent a significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.55a(g)(4)(ii) requires that inservice examination of components conducted during successive 120-month inspection intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) 12 months before the start of the 120-month inspection interval.

If a revised ISI program for a facility conflicts with the TSs of the facility, 10 CFR 50.55a(g)(5)(ii) requires licensees to apply to the Commission for amendment of the TSs to conform the TSs to the revised ISI program.

The proposed change amends the TS surveillance requirements to conform the TS to the revised ISI program for snubbers which shall meet the requirements of 10 CFR 50.55a(g) except where the NRC has granted specific written relief, pursuant to 10 CFR 50.55a(g)(6)(i), or authorized alternatives pursuant to 10 CFR 50.55a(a)(3).

In conclusion, based on the considerations discussed above, (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.

6.0 ENVIRONMENTAL CONSIDERATION

DNC has determined that the proposed amendment would change requirements with respect to installation or use of a facility component located within the restricted area, as defined by 10 CFR 20, or an inspection or surveillance requirement. DNC has evaluated the proposed amendment and has determined that it does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released off site, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need to be prepared in connection with the proposed amendment.

7.0 PRECEDENTS

The changes to TS 3/4.7.8 are similar to changes submitted by Public Service Electric and Gas (PSEG) Nuclear, LLC for Salem Generating Station, Units 1 and 2. The applicable references for these changes are provided below:

7.1 PSEG Letter LR-N10-0363, License Amendment Request: Changes to Snubber Surveillance Requirements [for Salem Units 1/2], dated October 4, 2010 (Accession No. ML102780066).

7.2 PSEG Letter LR-N11-0107, Response to Draft Request for Additional Information - License Amendment Request: Changes to Snubber Surveillance Requirements [for Salem Units 1/2], dated April 7, 2011 (Accession No. ML110980107).

7.3 PSEG Letter LR-N11-0151, Response to Draft Request for Additional Information - License Amendment Request: Changes to Snubber Surveillance Requirements [for Salem Units 1/2], dated May 23, 2011 (Accession ML111430636)

Three minor differences were noted between DNC's license amendment request and the request submitted by PSEG. These differences are summarized below:

- MPS2 SR 4.7.8 includes a surveillance requirement (i.e., 4.7.8.a) entitled "Inspection Types." This requirement is not contained in the Salem Units 1/2 TSs.

- In accordance with MPS2 SR 4.7.8.d, for each snubber that does not meet the test acceptance criteria, an additional 5% of that type of snubber shall be tested. For Salem Units 1/2 SR 4.7.9.c, an additional 10% is required. As noted in Attachment 4 of this submittal, the revised ISI program requirement for testing failures of MPS2 snubbers is equivalent to those of the current TS.

- For Salem Units 1/2, SR 4.7.9.c requires retest, during the next test period, of failed snubbers that are repaired and installed in another position. MPS2 SR 4.7.8.d does not contain this requirement and it is not required by ISTD-5500.

8.0 REFERENCES

8.1 Millstone Power Station Unit 2, Fourth 10-Year Interval Inservice Inspection Program and Associated Proposed Alternatives and Relief Requests, July 29, 2010 (Accession No. ML102580204).

8.2 Millstone Power Station Unit 2, Fourth 10-Year Interval Inservice Inspection Program, August 5, 2010 (Accession No. ML102220527).

8.3 NRC Regulatory Issue Summary 2010-06, "Inservice Inspection and Testing Requirements of Dynamic Restraints (Snubbers)," June 1, 2010 (Accession No. ML101310338).

ATTACHMENT 2

MARKED-UP TECHNICAL SPECIFICATION PAGES

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

3/4.7.8 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.8 All snubbers shall be OPERABLE. The only snubbers excluded from the requirements are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES.

ACTION:

With one or more snubbers inoperable within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.8~~.d~~ on the attached component or declare the attached system inoperable and follow the appropriate ACTION statement for the system.

SURVEILLANCE REQUIREMENTS

Snubber Examination, Testing, and Service Life Monitoring Program

4.7.8 Each snubber shall be demonstrated OPERABLE by performance of the ~~following augmented inservice inspection program and the requirements of the Inservice Inspection Program.~~

~~a. Inspection Types~~

~~As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.~~

~~b. Visual Inspections~~

~~Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-3. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-3 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 160.~~

~~c. Visual Inspection Acceptance Criteria~~

~~Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections 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 irrespective of type~~

~~that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8.e or 4.7.8.f, as applicable. All snubbers found 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 ACTION requirements shall be met.~~

~~d.~~ ~~Snubber Tests~~

~~At least once per eighteen (18) months during shutdown, a representative sample (10% of the total of each type of snubber, mechanical and hydraulic, in use in the plant) shall be tested either in place or in a bench test. For each snubber that does not meet the test acceptance criteria of Specification 4.7.8.e or 4.7.8.f, as applicable, an additional 5% of that type of snubber shall be tested.~~

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~~Testing shall continue until no additional inoperable snubbers are found within a sample or until all snubbers have been tested. The representative sample selected for testing shall include the various configurations, and the range of size and capacity of snubbers.~~

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

~~In addition to the regular sample, in locations where snubbers had failed the previous test due to operational or environmental conditions (excessive vibration, water hammer, high radiation, extreme heat or humidity, etc.), the snubbers currently installed in these locations shall be tested during the next test period. Test results of these snubbers may not be included for the resampling. All replacement snubbers shall have been tested prior to installation.~~

~~* 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.~~

~~If any snubber selected for testing either fails to lock-up or fails to move (i.e., frozen in place), the cause will be evaluated and if caused by manufacturer design deficiency, all snubbers of the same design subject to the same defect shall be tested regardless of location or difficulty or removal. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the test acceptance criteria.~~

~~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 the designed service.~~

~~e.~~ ~~Hydraulic Snubbers Functional Test Acceptance Criteria~~

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~~The hydraulic 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.~~

~~f.~~ ~~Mechanical Snubbers Functional Test Acceptance Criteria*~~

~~The mechanical snubber functional test shall verify that:~~

~~1.~~ ~~The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.~~

~~2.~~ ~~Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.~~

~~g.~~ ~~Snubber Service Life Monitoring~~

~~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 Quality Assurance Program Topical Report.~~

~~* Mechanical snubber functional test acceptance criteria shall become effective upon installation of snubber testing equipment but not later than June 30, 1985.~~

~~SURVEILLANCE REQUIREMENT (Continued)~~

~~Concurrent with the first inservice visual inspection and at least once per 18 months thereafter, the installation and maintenance records for each 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 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 reevaluation, replacement or reconditioning shall be indicated in the records.~~

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~~TABLE 4.7-3~~
~~SNUBBER VISUAL INSPECTION INTERVAL~~
~~NUMBER OF UNACCEPTABLE SNUBBERS~~

~~Population or Category (Notes 1 and 2)~~	~~Column A Extend Interval (Notes 3 and 6)~~	~~Column B Repeat Interval (Notes 4 and 6)~~	~~Column C Reduce Interval (Notes 5 and 6)~~
~~1~~	~~0~~	~~0~~	~~1~~
~~80~~	~~0~~	~~0~~	~~2~~
~~100~~	~~0~~	~~1~~	~~4~~
~~150~~	~~0~~	~~3~~	~~8~~
~~200~~	~~2~~	~~5~~	~~13~~
~~300~~	~~5~~	~~12~~	~~25~~

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~~Note 1:~~ ~~The next visual inspection 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. However, that decision must be made and documented before any inspection and that decision 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. Use next lower integer for the value of the limit for Columns A, B, or C 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 in 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 Columns B and C.~~

~~Note 6:~~ ~~The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.~~

6.27 CONTROL ROOM ENVELOPE HABITABILITY PROGRAM (Continued)

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air inleakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.

f. The provisions of Surveillance Requirement 4.0.2 are applicable to the frequencies for assessing CRE habitability and determining CRE unfiltered inleakage as required by paragraph c.

6.28 Snubber Examination, Testing, and Service Life Monitoring Program

This program conforms to the examination, testing and service life monitoring for dynamic restraints (snubbers) in accordance with 10 CFR50.55a inservice inspection (ISI) requirements for supports. The program shall be in accordance with the following:

a. This program shall meet 10 CFR 50.55a(g) ISI requirements for supports.

b. The program shall meet the requirements for ISI of supports set forth in subsequent editions of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(b), subject to its limitations and modifications, and subject to Commission approval.

c. The program shall, as allowed by 10 CFR 50.55a(b)(3)(v), meet Subsection ISTA, "General Requirements" and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants" in lieu of Section XI of the ASME BPV Code ISI requirements for snubbers, or meet authorized alternatives pursuant to 10 CFR 50.55a(a)(3).

d. The 120-month program updates shall be made in accordance with 10 CFR 50.55a (including 10 CFR 50.55a(b)(3)(v)) subject to the limitations and modifications listed therein.

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ATTACHMENT 3

MARKED-UP TECHNICAL SPECIFICATION BASES PAGES

For Information Only

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

3/4.7.7 DELETED

3/4.7.8 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse effect on any safety-related system.

~~A list of individual snubbers with detailed information of snubber location and size and of system affected shall be available at the plant in accordance with Section 50.71(c) of 10 CFR Part 50. The accessibility of each snubber shall be determined and approved by the Plant Operations Review Committee. The determination shall be based upon the existing radiation levels and the expected time to perform a visual inspection in each snubber location as well as other factors associated with accessibility during plant operations (e.g., temperature, atmosphere, location, etc.), and the recommendations of Regulatory Guide 8.8 and 8.10. The addition or deletion of any hydraulic or mechanic snubber shall be made in accordance with Section 50.59 of 10 CFR Part 50.~~

~~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 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.~~

~~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, 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, or 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.~~

~~To provide assurance of snubber reliability, a representative sample of the installed snubbers will be tested during plant shutdowns at eighteen (18) month intervals. Observed failures of these sample snubbers shall require testing of additional units.~~

~~Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.~~

~~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 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.~~

3/4.7.9 DELETED

ATTACHMENT 4

COMPARISON OF CURRENT TS REQUIREMENTS TO REVISED ISI PROGRAM REQUIREMENTS

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

Millstone Power Station Unit 2 (MPS2)
Comparison of Current TS Requirements to Revised ISI Program Requirements

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.a Inspection Types As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.	ISTD-5252 states that the total snubber population may be considered one Defined Test Plan Group (DTPG), or alternatively, differences in design, application, size, or type may be considered in establishing DTPGs. See exception in ISTD-5253.	At MPS2, snubbers are grouped into DTPGs by design type in accordance with ISTD-5252. Specifically, hydraulic snubbers are considered one DTPG while mechanical snubbers are another DTPG. This snubber grouping is the same as that required by Surveillance Requirement (SR) 4.7.8.a.
4.7.8.b Visual Inspection Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-3. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-3 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 160. Note 1 to TS Table 4.7-3 states that snubber categories may be examined separately or jointly.	ISTD-4220(a) requires all snubbers to be categorized as one population for examination, or alternatively, to categorize them individually as accessible or inaccessible. The categories of accessible and inaccessible snubbers shall be considered separately for examination. ISTD-4220(b) requires the decision to examine the snubbers as one population or as separate categories shall be made and documented before the scheduled examination begins and shall not be changed during the examination. ISTD-4252(b) requires inservice examinations to be conducted in accordance with Table ISTD-4252-1.	Table ISTD-4252-1 is identical to Table 4.7-3 for population/category sizes less than or equal to 300. Use of ISTD-4200 for snubber inservice examination in lieu of current SR 4.7.8.b does not change the number of snubbers required to be examined or the required examination intervals.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.c Visual Inspection Acceptance Criteria Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional.	ISTD-4210 states that inservice examination shall be a visual examination to identify physical damage, leakage, corrosion, or degradation that may have been caused by environmental exposure or operating conditions; and external characteristics that may indicate operational readiness of the snubber shall be examined. ISTD-4231 requires that examinations shall include observations for the following and the conditions shall be evaluated when found: (a) loose fasteners, or members that are corroded or deformed (b) disconnected components or other conditions that might interfere with the proper restraint of movement ISTD-4232 requires that examinations verify snubbers do not restrain thermal movement to an extent that unacceptable stresses could develop in the snubber, the pipe, or other equipment that the snubber is designed to protect or restrain. ISTD-4233 requires that examinations verify snubbers shall be free of defects that may be generic to particular designs as may be detected by visual examination. ASME Code Section XI, Articles IWF-5200(c) and IWF-5300(c) requires integral and nonintegral attachments for snubbers shall be examined in accordance with the requirements of Subsection IWF.	10 CFR 50.55a(b)(3)(v) allows the use of subsection ISTD for inservice examination requirements. Preservice and inservice examinations are required to be performed using the VT–3 visual examination method described in IWA–2213. The revised inservice inspection (ISI) program requirements for inservice examination do not differ significantly from the visual inspection acceptance criteria in SR 4.7.8.c.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.c (continued) Snubbers which appear inoperable as a result of visual inspections 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 irrespective of type that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.8.e or 4.7.8.f, as applicable. All snubbers found 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 ACTION requirements shall be met	ISTD-4240 permits snubbers classified as unacceptable during inservice examination to be tested in accordance with the requirements of ISTD-5210. Results that satisfy the operational readiness test criteria of ISTD- 5210 shall be used to accept the snubber, provided the test demonstrates that the unacceptable condition did not affect operational readiness. ISTD-4233 requires that fluid supply or content for hydraulic snubbers shall be observed. If the fluid is less than the minimum amount, the installation shall be identified as unacceptable, unless a test establishes that the performance of the snubber is within specified limits. Tests shall be performed in accordance with ISTD-5210(b) and ISTD-5210(c). The initial test shall start with the piston at the as-found setting and be performed in the extension (tension) direction, or in a mode that more closely resembles the operating and design requirements of the snubber. ISTD-4270 requires that snubbers that do not meet examination requirements of ISTD-4230 shall be evaluated to determine the root cause of the unacceptability. ISTD-4280 requires that unacceptable snubbers shall be adjusted, repaired, modified, or replaced. Additional action regarding the examination interval shall be taken as indicated in Table ISTD-4252-1.	The revised ISI program requirements for evaluation and corrective action for inservice examination are equivalent to those of current SR 4.7.8.c for visual examination acceptance criteria.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.d Snubber Tests At least once per eighteen (18) months during shutdown, a representative sample (10% of the total of each type of snubber, mechanical and hydraulic, in use in the plant) shall be tested either in place or in a bench test.	ISTD-5200 requires snubber operational readiness testing to be performed each fuel cycle. Tests are required to be in accordance with a specified sampling plan. Testing shall be performed during normal system operation, or during system or plant outages. ISTD-5240 states that snubber testing may begin no earlier than 60 days before a scheduled refueling outage. ISTD-5261 requires snubbers of each Defined Test Plan Group (DTPG) to be tested using either: (a) the 10% testing sample plan (b) the 37 testing sample plan ISTD-5223 and ISTD-5224 permit snubbers to be tested in their installed location or in a bench test.	The frequency of snubber testing in the revised program is unchanged from the frequency specified in current SR 4.7.8.d. The revised program provides greater flexibility in permitting testing to be performed during modes other than shutdown. However, as noted in Generic Letter 91-04: The staff concludes that the TS need not restrict surveillances as only being performed during shutdown. Nevertheless, safety dictates that when refueling interval surveillances are performed during power operation, licensees give proper regard for their effect on the safe operation of the plant. If the performance of a refueling interval surveillance during plant operation would adversely affect safety, the licensee should postpone the surveillance until the unit is shut down for refueling or is in a condition or mode that is consistent with the safe conduct of that surveillance. DNC assesses and manages risk in accordance with 10 CFR 50.65(a)(4) prior to performing maintenance and surveillance activities both at power and during shutdown. Activities are scheduled to minimize outage times for TS required equipment. DNC plans to use the 10% sample plan for MPS2. The initial sample size in the revised program is as large as the size specified in SR 4.7.8.d.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.d (continued) For each snubber that does not meet the test acceptance criteria of Specification 4.7.8.e or 4.7.8.f, as applicable, an additional 5% of that type of snubber shall be tested. Testing shall continue until no additional inoperable snubbers are found within a sample or until all snubbers have been tested.	ISTD-5271 requires snubbers that do not meet test requirements specified in ISTD-5210 or ISTD-5230 to be evaluated to determine the root cause of the failure. ISTD-5312 requires that additional samples required by ISTD-5320 shall be at least one-half the size of the initial sample from that DTPG. ISTD-5330 requires the snubbers of each DTPG and failure mode group (FMG) to be tested as required. Testing is complete when the mathematical expressions of ISTD-5331 are satisfied, or all snubbers in the DTPG or FMG have been tested. ISTD-5331 requires that testing shall satisfy the mathematical expressions as follows: (a) for each DTPG $N \geq 0.1n + C(0.1n/2)$ (b) for each FMG $N_F \geq C_F(0.1n/2)$ Per ISTD-5322, additional tests are not required for an isolated failure.	The revised ISI program requirement for testing failures is equivalent to those of the current SR 4.7.8.d

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.d (continued) The representative sample selected for testing shall include the various configurations, and the range of size and capacity of snubbers. Snubbers identified as "Especially Difficult to Remove" or in "High Radiation Zones During Shutdown" shall also be included in the representative sample.	ISTD-5311(a) requires the initial sample to include as practicable representation from the DTPG based on the significant features (i.e., the various designs, configurations, operating environments, sizes, and capacities) and based on the ratio of the number of snubbers of each significant feature, to the total number of snubbers in the DTPG. Initial sample selection shall be random. As an alternative, ISTD-5311(b) requires the initial sample to be generally representative, as in ISTD-5311(a) but allows the sample to be selected from those snubbers scheduled for seal replacement or other activities related to service life monitoring.	The revised program requirement for sample composition is equivalent to the current SR 4.7.8.d. The revised program requirements continue to ensure initial sample selection is random and representative.
4.7.8.d (continued) In addition to the regular sample, in locations where snubbers had failed the previous test due to operational or environmental conditions (excessive vibration, water hammer, high radiation, extreme heat or humidity, etc.), the snubbers currently installed in these locations shall be tested during the next test period. Test results of these snubbers may not be included for the resampling. All replacement snubbers shall have been tested prior to installation.	ISTD-5500 requires that snubbers placed in the same location as snubbers that failed the previous inservice operational readiness test shall be retested at the time of next operational readiness testing unless the cause of the failure is clearly established and corrected. Retests in accordance with ISTD-5500 shall not be considered a part of inservice operational readiness testing sample selection requirements of ISTD-5200, ISTD-5300, or ISTD-5400.	The revised program requirement is equivalent to the current SR 4.7.8.d requirement to retest a replacement snubber installed in place of a failed snubber. Retesting is required, unless the cause of the original failure was clearly established and corrected.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.d (continued) If any snubber selected for testing either fails to lock-up or fails to move (i.e., frozen in place), the cause will be evaluated and if caused by manufacturer design deficiency, all snubbers of the same design subject to the same defect shall be tested regardless of location or difficulty or removal. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the test acceptance criteria.	ISTD-5271 states that snubbers that do not meet test requirements specified in ISTD-5210 or ISTD-5230 shall be evaluated to determine the root cause of the failure. ISTD-5272 states that snubbers found unacceptable according to operational readiness test requirements should be assigned to FMGs unless the failure is isolated or unexplained. FMGs shall include all unacceptable snubbers with the same failure mode and all other snubbers with similar potential for similar failure. As an alternative to additional testing for Design or Manufacturing FMGs, ISTD-5323 requires no additional testing when all snubbers in the FMGs are replaced or modified in accordance with ISTD-1600. If replacement or modification is not performed in accordance with ISTD-5323, additional testing is required in accordance with ISTD 5324. Testing is required to continue until the mathematical expression of ISTD-5331(b) is satisfied or all snubbers in the FMG have been tested.	The revised program requirements for manufacturer or design deficiencies require replacement or modification of all snubbers in the FMG or additional testing until the mathematical expression of ISTD-5331(b) is satisfied or all snubbers in the FMG have been tested. This may result in fewer snubbers being tested after a test failure. However, the revised program requirements provide adequate assurance of snubber OPERABILITY because all potentially affected snubbers will be replaced or modified; or the acceptance limit for additional testing will be met, demonstrating an acceptable level of reliability.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.d (continued) 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 the designed service.	ISTD-1800 requires that an evaluation shall be performed of the system(s) or components of which an unacceptable snubber is a part, for possible damage to the supported system or component.	The revised ISI program requirements for supported component(s) or system evaluation are equivalent to those of current SR 4.7.8.d
4.7.8.e <u>Hydraulic Snubbers Functional Test Acceptance Criteria</u> The hydraulic 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.	ISTD-5210, Test Parameters. Snubber operational readiness tests shall verify the following: (a) activation is within the specified range of velocity or acceleration in tension and in compression. (b) release rate, when applicable is within the specified range in tension and in compression.	The revised ISI program requirements for hydraulic snubber acceptance criteria are equivalent to those of current SR 4.7.8.e.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.f <u>Mechanical Snubbers Functional Test Acceptance Criteria</u> The mechanical snubber functional test shall verify that: 1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force. 2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.	ISTD-5210, Test Parameters. Snubber operational readiness tests shall verify the following: (a) activation is within the specified range of velocity or acceleration in tension and in compression. (c) for mechanical snubbers, drag force is within specified limits, in tension and in compression.	The revised ISI program requirements for mechanical snubber acceptance criteria are equivalent to those of current SR 4.7.8.f.

Millstone Power Station Unit 2
Comparison of Current TS Requirements to Revised ISI Program Requirements
(Continued)

Current TS Surveillance Requirement	Revised ISI Program Requirement	Justification for Change
4.7.8.g <u>Snubber Service Life Monitoring</u> 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 Quality Assurance Program Topical Report. Concurrent with the first inservice visual inspection and at least once per 18 months thereafter, the installation and maintenance records for each 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 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 reevaluation, replacement or reconditioning shall be indicated in the records.	ISTD-6100 requires initial snubber service life to be predicted based on manufacturer's recommendation or design review. ISTD-6200 requires service life to be evaluated at least once each fuel cycle, and increased or decreased, if warranted. If the evaluation indicates that service life will be exceeded before the next scheduled system or plant outage, one of the following actions shall be taken: (a) the snubber shall be replaced with a snubber for which the service life will not be exceeded before the next scheduled system or plant outage (b) technical justification shall be documented for extending the service life to or beyond the next scheduled system or plant outage (c) the snubber shall be reconditioned such that its service life will be extended to or beyond the next scheduled system or plant outage	The service life evaluation requirements in ISTD-6100 and ISTD-6200 are equivalent to the requirements in current SR 4.7.8.g.

ATTACHMENT 5

U2-24-SNUB-BAP01

SNUBBER EXAMINATION, TESTING, AND SERVICE LIFE MONITORING PROGRAM PLAN

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

Millstone Power Station Unit 2

U2-24-SNUB-BAP01

Snubber Examination, Testing, and Service Life Monitoring Program Plan

Revision 0

Commercial Service Date

December 26, 1975

Dominion Nuclear Connecticut, Inc.
Millstone Power Station Unit 2
Rope Ferry Road
Waterford, CT 06385

APPROVALS:

See ER-MP-IST-106 Attachment 1 for approval signatures

Revision Log

Effective Date	Revision Description	Prepared: IST Snubber Coordinator	Date	Approved: Engineering Manager	Date
	Original	[redacted]	08/08/11	[redacted]	08/15/11

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INTRODUCTION:

1.1 Purpose:

To provide requirements for the performance and administration of assessing the operational readiness of those dynamic restraints (Snubbers) whose specific functions are required to perform one of the following three functions or, to ensure the integrity of the reactor coolant pressure boundary.

- Shutdown the reactor to the safe shutdown condition
- Maintain the reactor in the safe shutdown condition
- Mitigate the consequences of an accident

1.2 Scope:

The program plan was prepared to meet the requirements of the following subsections of the American Society of Mechanical Engineers (ASME) OM Code 2004 Edition.

- Subsection ISTA, "*General Requirements*"

  ISTA contains the requirements directly applicable to inservice examination and testing including the Owner's Responsibility and Records Requirements.

- Subsection ISTD, "*Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants*"

  ISTD establishes preservice and inservice examination and testing, and the service life of Dynamic Restraints *(Snubbers)* in light-water reactor nuclear power plants. The snubbers covered are required to support the systems and components that are required in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

1.3 Discussion:

In order to ensure the required operability of all safety related snubbers for Unit 2 during a seismic or other events, initiating dynamic loads, the inspection, testing, and the service life monitoring of these snubbers shall be implemented and performed in accordance with the requirements of SP-21149, Snubber Visual Inspection Surveillance and SP 21174 Snubber Functional Testing Surveillance.

The examination boundaries shall include the snubber assembly from pin to pin inclusive. Coordination with the ISI program owner will be required to complete the surveillance requirements for piping and structural attachments. Integral and nonintegral attachments for snubbers shall be examined in accordance with the requirements of the ASME Code Section XI, Article IWF-5200(c) and IWF-5300(c) within the ISI program.

The Snubber Program described in SP 21149 and SP 21174 adhere to the requirements of the ASME OM Code, Subsection ISTD, 2004 Edition, as allowed by 10CFR50.55a(b)(3)(v) in lieu of ASME Section XI, IWF-5200(a) and (b) and IWF-5300(a) and (b).

2.0 EXAMINATION, TESTING AND SERVICE LIFE MONITORING REQUIREMENTS:

2.1 Visual Examinations, Functional Testing, and Service Life requirements shall be performed to the extent specified within SP 21149 and SP 21174.

2.2 Snubbers are grouped into Defined Test Plan Groups (DTPGs) by design type, in accordance with ISTD-5252. Each DTPG will be tested using the 10% sample plan per ISTD-5300. The snubbers attached to the Steam Generators are listed as a separate DTPG as required by ISTD-5253.
DTPGs at Millstone Station Unit 2 include all hydraulic snubbers as DTPG "A" , all mechanical snubbers as DTPG "B", and all Steam Generator snubbers as DTPG "C". The individual snubbers included in the each specific DTPG are listed in Attachment 9.1, 9.2, and 9.3 of this plan and in SP 21149.

2.4 The service life of all snubbers shall be monitored and snubbers replaced, reconditioned or evaluated in accordance with SP 21174 and ISTD-6200 to ensure that the service life is not exceeded between surveillance inspections. The replacement or reconditioning shall be documented and records retained in accordance with Millstone procedures.

3.0 EXAMINATION and TESTING METHODS:

3.1 Visual Examinations shall be performed by qualified individuals using the VT-3 method as described in ASME Section XI, IWA-2213. Visual Examinations and Functional Testing shall be performed to verify the requirements specified within SP 21149, SP 21174 and ER-AA-NDT-VT-603 are met in accordance with ISTD.

4.0 EXAMINATION and TESTING FREQUENCY:

4.1 Visual Examinations and Functional Testing shall be performed at the frequency specified within SP 21149 and SP 21174. Millstone Unit 2 currently performs accessible and inaccessible snubber visual examinations as one group with the frequency shown in Table ISTD 4252-1.

4.2 The Visual Examinations of Table ISTD 4252-1may be extended in accordance with Code Case OMN13 once the prerequisites of the code case have been met.

4.3 Visual Examinations shall be performed whenever new snubbers are installed, reinstallation of existing or swapped snubbers that were functionally tested, or after repairs, replacements or modifications.

4.4 Functional testing requirements for new installations or spares shall be equal to or more stringent than that specified within SP 21174.

5.0 EXAMINATION, TESTING AND SERVICE LIFE MONITORING EVAUATION:

5.1 Snubbers that do not appear to conform to the Visual Examination requirements of SP 21149, shall be reported for evaluation and appropriate corrective action.

5.2 Snubbers that do not appear to conform to the visual examination acceptance requirements and are later confirmed as operable as a result of functional testing may be declared operable for the purpose of establishing the next visual inspection interval, providing that the unacceptable condition did not affect operational readiness.

5.3 Snubbers that do not meet the operability testing acceptance criteria in SP 21174 shall be evaluated to determine the cause of the failure and appropriate corrective action taken.

5.4 The service life of a snubber is evaluated using manufacturing input and engineering information gained through consideration of the snubber service conditions and inservice functional test results. A service life monitoring program is included in SP 21174.

6.0 REPAIR, REPLACEMENT, AND MODIFICATION REQUIREMENTS:

6.1 Repairs, Replacements and Modifications performed on snubbers under this program shall conform, as applicable, to the requirements specified within the ASME Code, Section XI.

7.0 SCHEDULING:

7.1 The Visual Examinations, Functional Testing schedules, and Service Life Replacements shall be established, tracked and maintained in accordance with SP 21149, SP 21174, and ISTD by the IST Snubber Coordinator.

7.2 The IST Snubber Coordinator shall identify and track expanded or additional testing and/or examinations as required by SP 21149, SP 21174 and ISTD.

8.0 REPORTS and RECORDS:

8.1 Reports and records for the Visual Examinations and Functional Testing shall be maintained for all snubbers included within the Snubber Program.

8.2 Applicable records and reports, as required for Repair and Replacements, shall be maintained for snubbers.

8.3 Records of the service life of all hydraulic and mechanical snubbers listed in this program, including the date at which the service life commences or expires, and associated installation and maintenance records will be maintained.

9.0 ATTACHMENTS:

9.1 DPTG A (Hydraulic Snubber Test Group)

9.2 DPTG B (Mechanical Snubber Test Group)

9.3 DPTG C (Steam Generator Snubber Test Group)

ATTACHMENT 9.1
DPTG A (Hydraulic Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
312015A	MS	Grinnell	4x5
312015B	MS	Grinnell	4x5
312016A	MS	Grinnell	4x5
312016B	MS	Grinnell	4x5
312017	MS	Grinnell	10x5
312018	MS	Grinnell	10x5
312019	MS	Grinnell	8x5
401008	CS	Grinnell	1.5x5
401024	HPSI	Grinnell	2.5x5
402009	LPSI	Grinnell	1.5x5
402022	LPSI	Grinnell	2.5x5
402056A	CS	Grinnell	1.5x5
402056B	CS	Grinnell	1.5x5
402083	CS	Grinnell	1.5x5
402100	SIT	Grinnell	2.5x5
402113A	SDC	Grinnell	3.25x5
402113B	SDC	Grinnell	3.25x5
402115A	SDC	Grinnell	2.5x5
402115B	SDC	Grinnell	2.5x5
403068	SFP	Grinnell	2.5x5
403090	SFP	Grinnell	2.5x5
405388	MS	Grinnell	2.5x5
410004A	SIT	Grinnell	1.5x5
410004B	SIT	Grinnell	1.5x5
410012	SIT	Grinnell	2.5x5
410014	SIT	Grinnell	3.25x5
410015	SIT	Grinnell	2.5x5
410017	SIT	Grinnell	2.5x5
410019	SIT	Grinnell	2.5x5
410021	SIT	Grinnell	3.25x5
410022	SIT	Grinnell	2.5x5
410027	SIT	Grinnell	3.25x5
410028	SIT	Grinnell	6x5
410029	SIT	Grinnell	6x5
410031A	SIT	Grinnell	2.5x5
410031B	SIT	Grinnell	2.5x5
410061	SDC	Grinnell	2.5x5

ATTACHMENT 9.1 (cont)
DPTG A (Hydraulic Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
410065A	SIT	Grinnell	2.5x5
410065B	SIT	Grinnell	2.5x5
410067	SIT	Grinnell	2.5x5
410083	SIT	Grinnell	2.5x5
410086A	SIT	Grinnell	5x5
410086B	SIT	Grinnell	3.25x5
410086C	SIT	Grinnell	3.25x5
410103	SIT	Grinnell	3.25x5
411030A	FW	Grinnell	5x5
411030B	FW	Grinnell	5x5
412002	MS	Lisega	309253
412003	MS	Grinnell	5x5
412004	MS	Grinnell	6x10
412013	FW	Grinnell	3.25x5
412015	FW	Grinnell	3.25x5
412016A	MS	Grinnell	6x5
412016B	MS	Grinnell	6x5
412018	FW	Grinnell	3.25x5
413009	MS	Grinnell	2.5x5
413011A	MS	Grinnell	4x5
413011B	MS	Grinnell	4x5
413018B	MS	Grinnell	8x5
413019A	MS	Grinnell	4x5
413019B	MS	Grinnell	4x5
413022A	MS	Grinnell	4x5
413022B	MS	Grinnell	4x5
413024A	MS	Grinnell	5x5
413024B	MS	Grinnell	5x5
413025A	MS	Grinnell	4x5
413025B	MS	Grinnell	4x5
413028	MS	Grinnell	2.5x5
413029A	MS	Grinnell	2.5x5
413029B	MS	Grinnell	2.5x5
413030A	MS	Grinnell	3.25x5
413030B	MS	Grinnell	3.25x5
413031	MS	Grinnell	6x5
413032A	MS	Grinnell	8x5

ATTACHMENT 9.1 (cont)
DPTG A (Hydraulic Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
413032B	MS	Grinnell	8x5
413041	MS	Grinnell	6x10 .
413046A	MS	Grinnell	3.25x10
413046B	MS	Grinnell	3.25x10
413081	MS	Grinnell	1.5x5
413082A	MS	Grinnell	1.5x5
413082B	MS	Grinnell	1.5x5
413172	FW	Grinnell	3.25x5
413179	FW	Grinnell	4x5
413181	FW	Grinnell	2.5x5
413192A	FW	Grinnell	3.25x5
413192B	FW	Grinnell	3.25x5
413199A	FW	Grinnell	2.5x5
413199B	FW	Grinnell	2.5x5
416014A	CS	Grinnell	1.5x5
416014B	CS	Grinnell	1.5x5
416020	CS	Grinnell	2.5x5
416025	CS	Grinnell	2.5x5
416027	CS	Grinnell	2.5x5
427075	SW	Grinnell	2.5x5
427097A	SW	Grinnell	2.5x5
427097B	SW	Grinnell	2.5x5
505166A	RBCCW	Grinnell	1.5x5
505166B	RBCCW	Grinnell	1.5x5
510017	SIT	Grinnell	3.25x5
510018	SIT	Grinnell	3.25x5
512001	MS	Anvil	PSA-1
513023A	MS	Grinnell	1.5x5
513023B	MS	Grinnell	1.5x5
513032	MS	Grinnell	6x5
60025	FW	Grinnell	3.25x5
60026	FW	Grinnell	6x5

ATTACHMENT 9.2
DPTG B (Mechanical Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
302092	LPSI	PSA	PSA-1
310022	SIT	PSA	PSA-1
401014	LPSI	PSA	PSA-1
401016A	LPSI	PSA	PSA-1
401016B	LPSI	PSA	PSA-1
401018	HPSI	PSA	PSA-3
401019A	HPSI	PSA	PSA-1
401019B	HPSI	PSA	PSA-1
404020A	HPSI	PSA	PSA-1
404020B	HPSI	PSA	PSA-1/4
408009	RCS	PSA	PSA-3
408010	RCS	PSA	PSA-3
408021A	RCS	PSA	PSA-1
408021B	RCS	PSA	PSA-1
408022	RCS	PSA	PSA-1
408029	RCS	PSA	PSA-1
410007	SIT	PSA	PSA-1
410037A	RCS	PSA	PSA-1
410037B	RCS	PSA	PSA-1
410040	RCS	PSA	PSA-1
410040A	RCS	PSA	PSA-1
410046	RCS	PSA	PSA-3
410049	RCS	PSA	PSA-1
410054	RCS	PSA	PSA-3
410059	RCS	PSA	PSA-1
410062A	SDC	PSA	PSA-3
410062B	SDC	PSA	PSA-3
410092	SIT	PSA	PSA-1
411045A	FW	PSA	PSA-1
411045B	FW	PSA	PSA-1
413064A	MS	PSA	PSA-3
413064B	MS	PSA	PSA-3
413132A	MS	PSA	PSA-3
413132B	MS	PSA	PSA-3
413135A	MS	PSA	PSA-1
413135B	MS	PSA	PSA-1
414001A	RCS	PSA	PSA-1

ATTACHMENT 9.2 (cont)
DPTG B (Mechanical Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
414001B	RCS	PSA	PSA-1
414002A	RCS	PSA	PSA-3
414002B	RCS	PSA	PSA-3
414006A	RCS	PSA	PSA-3
414006B	RCS	PSA	PSA-3
414009A	RCS	PSA	PSA-3
414009B	RCS	PSA	PSA-3
414016A	RCS	PSA	PSA-3
414016B	RCS	PSA	PSA-3
414021A	RCS	PSA	PSA-3
414021B	RCS	PSA	PSA-3
414029A	RCS	PSA	PSA-3
414029B	RCS	PSA	PSA-3
414029C	RCS	PSA	PSA-1
414029D	RCS	PSA	PSA-1
414032A	RCS	PSA	PSA-1
414032B	RCS	PSA	PSA-1
414033A	RCS	PSA	PSA-1
414033B	RCS	PSA	PSA-1
414035	RCS	PSA	PSA-1
414040	RCS	PSA	PSA-1
414041	RCS	PSA	PSA-1
414044	RCS	PSA	PSA-1
416016A	CS	PSA	PSA-1/4
416016B	CS	PSA	PSA-1/4
416021	CS	PSA	PSA-1/2
416022	CS	PSA	PSA-1/4
416032A	CS	PSA	PSA-1
416032B	CS	PSA	PSA-1
427103	SW	PSA	PSA-3
427106	SW	PSA	PSA-35
427115A	SW	PSA	PSA-3
427115B	SW	PSA	PSA-3
450058A	RBCCW	PSA	PSA-1/2
450058B	RBCCW	PSA	PSA-1/2
491375D	CVCS	PSA	PSA-1/4
501023A	CS	PSA	PSA-1

ATTACHMENT 9.2 (cont)
DPTG B (Mechanical Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
501023B	CS	PSA	PSA-1L
501024	CS	PSA	PSA-1
502024A	SDC	PSA	PSA-3
502024B	SDC	PSA	PSA-3
502026A	LPSI	PSA	PSA-1/2
502026B	LPSI	PSA	PSA-1/2
502035	LPSI	PSA	PSA-3
507002A	SIT	PSA	PSA-3
507002B	SIT	PSA	PSA-3
510004	SIT	PSA	PSA-1
512002	MS	PSA	PSA-1/2
512003	MS	PSA	PSA-1/2
513008	MS	PSA	PSA-1
513036	MS	PSA	PSA-1
513040	MS	PSA	PSA-1
513041	MS	PSA	PSA-1
513042	MS	PSA	PSA-1
514001	RCS	PSA	PSA-10
527071A	SW	PSA	PSA-3
527071B	SW	PSA	PSA-3
527072A	SW	PSA	PSA-3
527072B	SW	PSA	PSA-3
60017	FW	PSA	PSA-10
60240	RHV	PSA	PSA-1/2
60606	RCS	PSA	PSA-3
70080	CVCS	PSA	PSA-1/4
70087	RWST	PSA	PSA-1
70100	HPSI	PSA	PSA-1/4
491356G DP-023	MS	PSA	PSA-1/4
491389K DP-034	CVCS	PSA	PSA-1
491369G DP-038	CVCS	PSA	PSA-1/4
60390 DP-086	MS	PSA	PSA-1
491354G DP-107	MS	PSA	PSA-1
491354C DP-109	MS	PSA	PSA-1/4
491357E DP-125A	MS	PSA	PSA-1/4
491357E DP-125B	MS	PSA	PSA-1/4
491437G DP-152	CVCS	PSA	PSA-1/4

ATTACHMENT 9.2 (cont)
DPTG B (Mechanical Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
491358E DP-190	MS	PSA	PSA-1/4
70037 DP-208	MS	PSA	PSA-1
70038 DP-215	MS	PSA	PSA-1
491361D DP-253	MS	PSA	PSA-1/4
491232K DP-307	MS	PSA	PSA-1
491424A DP-411	CVCS	PSA	PSA-1/4
491389M DP-501	CVCS	PSA	PSA-1/2
491280A DP-537	HPSI	PSA	PSA-1/2
60365 DP-633	MS	PSA	PSA-1
491277B DP-781	HPSI	PSA	PSA-1
60375 DP-816	MS	PSA	PSA-1

ATTACHMENT 9.3
DPTG C (Steam Generator Snubber Test Group)

Hanger ID Number	System	Manufacturer	Size
SG1---SS1	SG	Grinnell	10x5
SG1---SS2	SG	Grinnell	10x5
SG1---SS3	SG	Grinnell	10x5
SG1---SS4	SG	Grinnell	10x5
SG1---SS5	SG	Grinnell	10x5
SG1---SS6	SG	Grinnell	10x5
SG1---SS7	SG	Grinnell	10x5
SG1---SS8	SG	Grinnell	10x5
SG2---SS1	SG	Grinnell	10x5
SG2---SS2	SG	Grinnell	10x5
SG2---SS3	SG	Grinnell	10x5
SG2---SS4	SG	Grinnell	10x5
SG2---SS5	SG	Grinnell	10x5
SG2---SS6	SG	Grinnell	10x5
SG2---SS7	SG	Grinnell	10x5
SG2---SS8	SG	Grinnell	10x5