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

April 6, 2010

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 3 – ISSUANCE OF RELIEF REQUEST IR-3-01 REGARDING USE OF AMERICAN SOCIETY OF MECHANICAL ENGINEERING CODE, SECTION XI, APPENDIX VIII (TAC NO. ME1254)

Dear Mr. Heacock:

By letter dated April 28, 2009 (Agencywide Documents Access and Management System Accession No. ML091310666), Dominion Nuclear Connecticut, Inc. (DNC or the licensee) submitted relief requests for the third 10-year inservice inspection (ISI) interval program at Millstone Power Station, Unit No. 3 (MPS3). DNC requested the use of alternatives to certain American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI requirements. Specifically, Relief Request IR-3-01 proposed using surveillance requirements as specified in MPS3 Technical Specification (TS) 3/4.7.10 for the snubber visual inspection and functional testing. By letters dated December 16, 2009, and February 19, 2010 (ADAMS Accession No. ML093520170, and ML100540220, respectively), DNC supplemented request IR-3-01. The other relief requests contained in the April 28, 2009, request are being reviewed separately.

The Nuclear Regulatory Commission (NRC) staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that the use of MPS3 TS 3/4.7.10 requirements provides an acceptable level of quality and safety.

Therefore, pursuant to Title 10 of the *Code of Federal Regulations*, Part 50, Section 50.55a(a)(3)(i), the NRC authorizes the use of TS 3/4.7.10 requirements as an alternative to the ASME Code, Section XI, Article IWF-5000 requirements to examine safety-related ASME Code Class 1, 2 and 3 snubbers for the remainder of the third 10-year ISI interval for MPS3. The third 10-year ISI interval began on April 23, 2009, and is scheduled to be completed on April 22, 2019.

All other ASME Code, Section XI, requirements for which relief was not specifically requested and approved remain applicable, including third-party review by the authorized Nuclear Inservice Inspector.

If you have any questions, please contact the Project Manager, Carleen Sanders, at 301-415-1603.

Sincerely,

Harold Chernoff, Chief
Plant Licensing Branch 1-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure:
As stated

cc w/ encl: Distribution via Listserv

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

THIRD 10-YEAR INSERVICE INSPECTION INTERVAL

REQUEST FOR RELIEF NO. IR-3-01

MILLSTONE POWER STATION, UNIT NO. 3

DOMINON NUCLEAR CONNECTICUT, INC.

DOCKET NUMBER 50-423

1.0 INTRODUCTION

By letter dated April 28, 2009 (Agencywide Documents Access and Management System Accession No. ML091310666), Dominion Nuclear Connecticut, Inc. (DNC or the licensee) submitted relief requests for the third 10-year inservice inspection (ISI) interval program at Millstone Power Station, Unit No. 3 (MPS3). DNC requested the use of alternatives to certain American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI requirements. Specifically, Relief Request IR-3-01 proposed using surveillance requirements as specified in MPS3 Technical Specification (TS) 3/4.7.10 for the snubber visual inspection and functional testing. By letters dated December 16, 2009, and February 19, 2010 (ADAMS Accession No. ML093520170, and ML100540220, respectively), DNC supplemented request IR-3-01. The relief is requested pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(a)(3)(i).

The third 10-year ISI interval at MPS3 began on April 23, 2009, and is scheduled to end on April 22, 2019.

2.0 REGULATORY REQUIREMENTS

The ISI of the ASME Code Class 1, 2, and 3 components is performed in accordance with Section XI of the ASME Code and applicable addenda as required by 10 CFR 50.55a(g), except where specific relief has been granted by the Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.55a(g)(6)(i). 10 CFR 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if the licensee demonstrates that: (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.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The ASME Code of Record for the MPS3 third 10-year ISI interval is the 2004 Edition with no Addenda of Section XI of the ASME Code.

3.0 TECHNICAL EVALUATION

3.1 Component for Which Relief is Requested

All MPS3 safety-related ASME Code Class 1, 2 and 3 snubbers.

3.2 Code Requirements

The ASME Code, Section XI, Article IWF-5000, provides ISI requirements for snubbers.

IWF-5000 references ASME/American Nuclear Standards Institute (ANSI) *Code for Operation and Maintenance of Nuclear Power Plants* (OM), Part 4 (OM-4), 1987 Edition with OMa-1988 Addenda.

ASME Code, Section XI, Paragraphs IWF-5200(a) and IWF-5300(a) require that snubber preservice and inservice examinations be performed in accordance with OM-4, using the VT-3 visual examination method described in IWA-2213. Paragraphs IWF-5200(b) and IWF-5300(b) require that snubber preservice and inservice tests be performed in accordance with OM-4.

Paragraphs IWF-5200(c) and IWF-5300(c) require that integral and nonintegral attachments for snubbers, including lugs, bolting, pins, and clamps, be examined in accordance with the requirements of Subsection IWF.

3.3 DNC's Proposed Alternative

DNC proposes to use MPS3, TS 3/4.7.10, *Snubbers*, and the associated Surveillance requirements (SR) to perform visual examinations and functional testing of ASME Code Class 1, 2 and 3 snubbers in lieu of meeting ASME Code, Section XI, IWF-5300(a), (b) and (c) requirements.

3.4 Licensee's Basis for Requesting Relief (as stated)

> OMa-1988 imposes surveillance requirements for visual inspection and functional testing of snubbers. A visual inspection is the observation of the condition of the installed snubbers to identify those that are damaged, degraded, or inoperable as caused by physical means, leakage, corrosion,

or environmental exposure. To verify that a snubber can operate within specific performance limits, functional testing is required that typically involves removing the snubber and testing it on a specially designed test stand. Functional testing provides a 95% confidence that 90-100% of the snubbers operate within the specified acceptance limits. The performance of visual inspections is a separate process that complements the functional testing program and provides additional confidence in snubber operability.

The Code specifies a schedule for snubber visual inspections that is based on the number of inoperable snubbers found during the previous visual inspection. Because the current schedule for snubber visual inspections is based only on the number of inoperable snubbers found during the previous inspection, irrespective of the size of the snubber population, the visual inspection schedule is excessively restrictive. A significant amount of resources must be spent, and plant personnel subjected to unnecessary radiological exposure to comply with the visual examination requirements.

As an alternative to performing inservice examination and testing in accordance with ASME/ANSI OM, Part 4, as required by IWF-5300, Millstone Power Station (MPS3) will apply the visual and functional testing requirements that are prescribed by MPS3 Technical Specification [SR] 4.7.10 (including sampling and frequency requirements) to the snubbers identified above.

An alternate schedule for visual inspections has been developed that maintains the same confidence level as the existing schedule and generally will allow performance of inspections and corrective actions during plant outages. This schedule is given in Table 4.7-2, invoked from MPS3 [TS SR] 4.7.10.b. Because it will reduce future occupational radiation exposure and is highly cost effective, this is consistent with NRC policy. The alternative inspection schedule is based on the number of unacceptable snubbers found during the previous inspection in proportion to the sizes of the various snubber populations or categories.

While the schedule of examinations is to be determined from MPS3 [TS SR] 4.7.10, the examinations are still to be performed using VT-3 visual examination certified personnel.

3.5 NRC Staff Evaluation

DNC requested relief from the requirements of the ASME Code, Section XI, Paragraphs IWF-5300(a), (b) and (c). DNC proposed that the inservice visual examinations and functional testing of ASME Code Class 1, 2 and 3 snubbers be performed in accordance with the requirements of the MPS3 TS SR 4.7.10 in lieu of meeting the requirements in the ASME Code, Section XI, Paragraphs IWF-5300(a), (b) and (c).

ASME Section XI, Table IWA-1600-1 states that OM-4 shall be of Edition 1987 with OMa-1988 Addenda. OM-4, Paragraph 2.3, specifies the requirements for visual examination and OM-4,

Paragraph 3.2, specifies the requirements for functional testing. The licensee proposes to use TS SR 4.7.10 for inservice visual examination and functional testing of all safety-related snubbers.

DNC did not ask for relief from the snubber preservice examination and testing requirements as specified in Paragraphs IWF-5200(a), (b), and (c) of Article IWF-5000. In letter dated December 16, 2009, the licensee states that MPS3 will meet all the preservice and examination requirements of Paragraphs IWF-5200(a), (b) and (c).

MPS3 TS SR 4-7.10 incorporates Generic Letter (GL) 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions." GL 90-09 acknowledges that the visual inspection schedule, as contained in OM-4, is excessively restrictive and that licensees with large snubber populations have spent a significant amount of resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination requirements. GL 90-09 states that the alternative schedule for visual inspection, contained as an enclosure to GL 90-09, provides the same confidence level as that provided by OM-4.

TS SR 4.7.10 defines inservice examination requirements: (1) visual examination; (2) visual examination interval frequency; (3) method of visual examination; (4) subsequent examination intervals; and (5) inservice examination failure evaluation. Inservice operability testing requirements are also defined: (1) inservice operability or functional test; (2) initial snubber sample size; (3) additional sampling; (4) failure evaluation; (5) test failure mode groups; and (6) corrective actions for the 10% sample, 37 sample and 55 sample plans that are similar to those provided by OM-4. OM-4 requirements and TS SR 4.7.10 criteria are compared and summarized in the following table and followed by a detailed review:

	Criteria	ASME/ANSI OM Part 4 -1987 through OMa-1988 Addenda	Millstone Power Station, Unit 3 TS 3/4. 7.10
Inservice Examination			
1.	Visual Examination	Subparagraph 2.3.1.1 states that snubber visual examinations shall identify impaired functional ability due to physical damage, leakage, corrosion, or degradation.	TS 3/4.7.10, Surveillance Requirements (SR) 4.7.10 states that snubbers shall have no visible indications of damage or impaired operability.
2.	Visual Examination Interval Frequency	Subparagraph 2.3.2.2 provides visual examination interval frequency.	TS Table 4.7-2 provides snubber visual inspection interval frequency.
3.	Method of Visual Examination	IWF-5300(a) requires use of the VT-3 visual examination method described in IWA-2213.	Examination shall be performed using VT-3 visual examination certified personnel.
4.	Subsequent	Paragraph 2.3.2 provides	TS Table 4.7-2 provides a snubber

	Criteria	ASME/ANSI OM Part 4 -1987 through OMa-1988 Addenda	Millstone Power Station, Unit 3 TS 3/4. 7.10
	Examination Intervals	guidance for inservice examination intervals based on the number of unacceptable snubbers discovered.	visual inspection interval based on the number of unacceptable snubbers discovered.
5.	Inservice Examination Failure Evaluation	Paragraph 2.3.4 states that snubbers not meeting examination and acceptance criteria shall be evaluated to determine the cause of unacceptability.	TS SR 4.7.10.c provides details related to inservice examination failure evaluation.
Inservice Operability Test			
1.	Inservice Operability Test Requirements	Subparagraph 3.2.1.1 states that snubber operational readiness tests shall verify activation, release rate, and breakaway force or drag force by either an in-place or bench test.	TS SR 4.7.10.f provides detail about inservice operability test requirements. TS SR 4.7.10.e states that snubbers shall be functionally tested either in-place or in a bench test.
2.	Snubber Sample size	Paragraph 3.2.3 states that each defined test plan group shall use either a 10% sampling plan; a 37 testing sample plan; or a 55 testing sample plan during each refueling outage.	TS SR 4.7.10.e provides snubber sample size requirements.
3.	Additional Sampling	(a) *10% Testing Sample Plan:* Subparagraph 3.2.3.1(b) states that for any snubber(s) determined to be unacceptable as a result of testing, an additional sample of at least one-half the size of the initial sample lot shall be tested. (b) & (c) *37 Testing Sample and 55 Testing Sample Plans*: Subparagraph 3.2.3.2(b) states that for any snubber(s) determined to be unacceptable as a result of testing, an additional random sample of at	(a) *10% Testing Sample Plan*: TS SR 4.7.10.e.1 provides additional sampling requirements. (b) *37 Testing Sample Plan*: TS SR 4.7.10.e.2 provides additional sampling requirements. (c) *55 Testing Sample Plan:* TS SR 4.7.10.e.3 provides additional sampling requirements.

	Criteria	ASME/ANSI OM Part 4 -1987 through OMa-1988 Addenda	Millstone Power Station, Unit 3 TS 3/4. 7.10
		least one-half the size of the initial sample lot shall be tested.	
4.	Inservice Operability Failure Evaluation	Subparagraph 3.2.4.1 states that snubbers not meeting the operability testing acceptance criteria in paragraph 3.2.1 shall be evaluated to determine the cause of the failure.	TS SR 4.7.10.g provides details about inservice operability failure evaluations.
5.	Test Failure Mode Groups	Subparagraph 3.2.4.2 states that unacceptable snubber(s) shall be categorized into failure mode group(s).	TS SR 4.7.10.g provides requirements equivalent to test failure mode group(s).
6.	Corrective Actions for 10% Testing Sample Plan, 37 Testing Sample Plan, and 55 Testing Plan	Subparagraphs 3.2.5.1 and 3.2.5.2 states that unacceptable snubbers shall be adjusted or repaired, modified, or replaced.	TS SR 4.7.10.h provides corrective action for unacceptable snubbers.

3.5.1 Inservice Examination Requirements

3.5.1.1 Visual Examination

TS 3/4.7.10, SR 4.7.10.c, requires that 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. The visual examination per SR 4.7.10.c verifies visible indication of damage or impaired operability of snubbers as well as its attachments and anchorages. OM-4, Subparagraph 2.3.1.1, requires snubber visual examinations to identify impaired functional ability due to physical damage, leakage, corrosion, or degradation. TS SR 4.7.10 snubber visual examination requirements are equivalent to the snubber visual examination requirements of OM-4 Subparagraph 2.3.1.1. Therefore, this alternative provides an acceptable level of quality and safety.

Article-5000, Paragraph IWF-5300(c) requires that integral and non-integral attachments for snubbers, including lugs, bolting, pins, and clamps, be examined in accordance with Subsection IWF. MPS3 TS SR 4.7.10.c, states that visual inspection guidelines do not differentiate between integral and non-integral attachments. Visual examination includes verification that attachments to the foundation or supporting structure are secure and fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional.

Therefore, TS SR 4.7.10.c requirements are considered to be equivalent to the IWF-5300(c) requirements and provide an acceptable level of quality and safety.

3.5.1.2 Visual Examination Interval Frequency

TS Table 4.7-2, "Snubber Visual Inspection Interval," provides snubber visual inspection interval frequency requirements which are different than the OM-4 visual inspection interval requirements, but similar to the visual inspection interval frequency specified in GL 90-09. GL 90-09 acknowledges that the visual inspection interval frequency, as contained in OM-4, is excessively restrictive and that licensees with large snubber populations have spent a significant amount of resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination requirements. GL 90-09 states that the alternative schedule (interval frequency) for visual inspection contained in GL 90-09 provides the same confidence level as that provided by OM-4. Therefore, this alternative provides an acceptable level of quality and safety.

3.5.1.3 Method of Visual Examination

IWF-5300(a) requires that inservice examination be performed in accordance with OM-4, using the VT-3 visual examination method described in IWA-2213. IWA-2213 states that "VT-3 examinations are conducted to determine the general mechanical and structural condition of components and their supports by verifying parameters such as clearance, settings, and physical displacements; and to detect discontinuities and imperfections, such as loss of integrity at bolts and welded connections, loose or missing parts, debris, corrosion, wear, or erosion. VT-3 includes examinations for conditions that could affect operability or functional adequacy of snubbers and constant load and spring type supports."

TS SR 4.7.10.c, requires that "[v]isual 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."

DNC states in the Proposed Alternative and Basis for Use Section of IR-3-01, that while the schedule of examination is to be determined from MPS3 TS 4.7.10, the examination shall be performed using VT-3 visual examination certified personnel.

The intent and scope of MPS3 TS visual inspection requirements are equivalent to the OM-4, VT-3 examination requirements. Therefore, the NRC staff finds the licensee's method of snubber visual inspection provides an acceptable level of quality and safety.

3.5.1.4 Subsequent Examination Intervals

TS Table 4.7-2 establishes subsequent snubber visual inspection intervals based on the number of unacceptable snubbers discovered, in lieu of OM-4, Paragraph 2.3.2, requirements. These requirements are equivalent to the guidance provided in GL 90-09 and provide the same confidence level as OM-4. Therefore, the NRC staff finds that the subsequent examination intervals contained in TS Table 4.7-2, provide an acceptable level of quality and safety.

3.5.1.5 Inservice Examination Failure Evaluation

OM-4, Subparagraph 2.3.4.1 requires that "[s]nubbers which do not meet the examination criteria shall be evaluated to determine the cause of unacceptability." Subparagraph 2.3.4.2 states, in part, that snubbers found unacceptable may be tested in accordance with the requirements of Paragraph 3.2 of OM-4. TS SR 4.7.10.c, states that "[s]nubbers 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 acceptance criteria of the TS SR 4.7.10.f." The failure evaluation per TS SR 4.7.10.c is equivalent to the requirements of OM-4. Therefore, the NRC staff finds that the inservice examination failure evaluation per TS requirements provides an acceptable level of quality and safety.

3.5.2 Inservice Operability Testing Requirements

3.5.2.1 Inservice Operability Test

TS SR 4.7.10.f states that the snubber functional test is to verify (1) activation is achieved within specified range in both tension and compression; (2) bleed rate, or release rate where required, is present in both tension and compression, within the specified range (hydraulic snubbers); (3) the force required to initiate or maintain motion is within the specified range in both direction of travel (mechanical snubbers); and (4) the snubber exhibits the ability to withstand load without displacement. TS SR 4.7.10.e states that snubbers shall be functionally tested either in-place or in a bench test. OM-4, Subparagraph 3.2.1.1, states that snubber operational readiness tests verify activation, release rate, and breakaway force or drag force by either an in-place or bench test. The NRC staff finds that the TS requirements are equivalent to the snubber operability test requirements of OM-4, Subparagraph 3.2.1.1. Therefore, the TS functional test requirements provide an acceptable level of quality and safety.

3.5.2.2 Snubber Sample Size

TS SR 4.7.10.e, states, in part, that snubbers shall be functionally tested using the following sample plans: (1) at least 10% of the total of each type of snubber; or (2) 37 testing sample (Figure 4.7-1) plan; or (3) 55 testing sample plan. The sample plan(s) shall be selected for each type prior to the test period and cannot be changed during the test period. OM-4, Paragraph 3.2.3 requires either a 10% testing sampling plan, a 37 testing sample plan, or a 55 testing sample plan. The licensee's 10% testing sample, and 55 sample plans are similar to the plans as specified in OM-4. The 37 testing sample plan is the same as the OM-4 plan without a reject line. The NRC endorsed 37 Testing Sample Plan, without rejection criteria in the 2004 Edition of the ASME OM Code, Subsection ISTD, *Preservice and Inservice Examination and Testing of Snubbers in Light-water Reactor Nuclear Power Plants*. Therefore, not including a reject line in TS Figure 4.7-1 for the 37 testing sample plan is acceptable. The numbers of snubbers tested during outages using the MPS3 sample plans are considered to be equivalent to the OM-4 requirement. Therefore, the TS requirements for snubber sample size provide an acceptable level of quality and safety.

3.5.2.3 Additional Sampling

(a) For 10% testing sample plan

TS SR 4.7.10.e.1 requires that "[f]or each snubber of the type that does not meet the functional test acceptance criteria of [SR] 4.7.10.f, an additional 5% of that type of snubber shall be functionally tested...." OM-4, Subparagraph 3.2.3.1(b), requires that an additional sample size must be at least one-half the size of the initial sample size of the "defined test plan group" of snubbers. That is, for a 10% sample program, an additional 5% of the same type of snubber in the overall population would need to be tested. Therefore, TS SR 4.7.10 requirement for 5% additional sampling when using the 10% testing sample plan is equivalent to OM-4 requirements and provides an acceptable level of quality and safety.

(b) For 37 testing sample plan

OM-4, Subparagraph 3.2.3.2(b), states that "[f]or any snubber(s) determined to be unacceptable as a result of testing, an additional random sample of at least one-half the size of initial sample lot shall be tested until the total number tested [N] is equal to the initial sample size multiplied by the factor 1 + C/2, where C is total number of snubbers found to be unacceptable. (The testing of additional samples is also required for snubbers determined to be unacceptable in any additional test lots.)" For the 37 sample plan, initial and any additional testing shall be in accordance with Figure C1 of Appendix C of OM-4. The OM-4 37 sample plan, has an accept and a reject line (Figure C1). MPS3 TS SR 4.7.10.e(2) requires "a representative sample of each type shall be functionally tested in accordance with Figure 4.7-1." The MPS3 TS Figure 4.7-1 has an accept line which is represented by the equation $C = 0.055N - 2.007$. Solving for N, the equation becomes $N = 36.49 + 18.18C$. This mathematical expression requires testing of one-half of the initial samples. The reject line is discussed above. Therefore, MPS3 TS requirements for additional sampling when using the 37 testing sample plan are equivalent to the OM-4 requirements and provides an acceptable level of quality and safety.

(c) For 55 testing sample plan

OM-4, Subparagraph 3.2.3.2(b), states that "[f]or any snubber(s) determined to be unacceptable as a result of testing, an additional random sample of at least one-half the size of initial sample lot shall be tested until the total number tested [N] is equal to the initial sample size multiplied by the factor 1 + C/2, where C is total number of snubbers found to be unacceptable. (The testing of additional samples is also required for snubbers determined to be unacceptable in any additional test lots.)" MPS3 TS SR 4.7.10.e(3) states that for each snubber type which does not meet the functional test acceptance criteria, another sample of at least one-half the size of initial sample shall be tested for every failure as depicted by the equation $N = 55(1 + C/2)$. The 55 testing sample plan criteria of TS SR 4.7.10.e.3 are equivalent to the requirements of OM-4 and provides an acceptable level of quality and safety

3.5.2.4 Inservice Operability Failure Evaluation

OM-4, Subparagraph 3.2.4.1 requires that snubbers not meeting the operability testing acceptance criteria in OM-4, Paragraph 3.2.1, shall be evaluated to determine the cause of the failure. MPS3 TS SR 4.7.10.g, states that "[a]n engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure." Therefore, the NRC staff finds that the TS requirements related to inservice operability failure evaluation are equivalent to the OM-4 requirements and provides an acceptable level of quality and safety.

3.5.2.5 Test Failure Mode Groups

OM-4, Subparagraph 3.2.4.2, requires that unacceptable snubber(s) be categorized into test failure mode group(s). Subparagraph 3.2.4.2 states that "[a] test failure mode group(s) shall include all unacceptable snubbers that have a given failure mode, and all other snubbers subject to the same failure mode." MPS3 TS SR 4.7.10.g requires an engineering evaluation of each functional test failure to determine the cause of the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested, irrespective of type, which may be subject to the same mode of failure. All snubbers susceptible to the same failure conditions would be identified and evaluated, or replaced, without categorizing the failure mode group(s). Therefore, the TS SR 4.7.10 requirements are considered to be equivalent to the OM-4 requirements, and provide an acceptable level of quality and safety.

3.5.2.6 Inservice Operability Testing Corrective Actions for 10% sample or 37 sample plan or 55 sample plan

OM-4, Subparagraphs 3.2.5.1 and 3.2.5.2 require that unacceptable snubbers be adjusted, repaired, modified, or replaced. MPS3 TS SR 4.7.10.h, states that "[s]nubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect functional test results shall be tested to meet the functional test criteria before installation." Therefore, the NRC staff finds that the TS SR corrective actions associated with unacceptable snubbers at MPS3 are equivalent to the OM-4 requirements and provide an acceptable level of quality and safety.

Based on the above discussions, the NRC staff finds that snubber inservice visual examinations and functional tests, conducted in accordance with TS 3.7.10 and the associated SRs, provide reasonable assurance of snubber operability and provide a level of quality and safety equivalent to that of the ASME Code, Section XI, Paragraphs IWF-5300(a) and (b) and (c). Therefore, the NRC staff finds the licensee's proposed alternative provides an acceptable level of quality and safety with respect to snubber inservice visual inspection and functional testing.

4.0 CONCLUSION

Based on the information provided, the NRC staff concludes that the proposed alternative to use TS 3.7.10 and the associated SRs for safety-related ASME Code Class 1, 2 and 3 snubber inservice visual inspection and functional testing activities provides an acceptable level of

quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the licensee's proposed alternative is authorized for the MPS3 third 10-year ISI and testing interval.

All other ASME Code, Section XI, requirements for which relief was not specifically requested and approved remain applicable, including third-party review by the authorized Nuclear Inservice Inspector.

Principal Contributor: G. Bedi

Date: April 6, 2010

If you have any questions, please contact the Project Manager, Carleen Sanders, at 301-415-1603.

Sincerely,

/ra/

Harold Chernoff, Chief
Plant Licensing Branch 1-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-423

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