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

Serial No. 09-759
NSSL/WDC R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
RELIEF REQUEST IR-3-01 RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING SNUBBER INSPECTION AND TESTING FOR THIRD 10-YEAR INTERVAL

As a part of the inservice inspection (ISI) program, Dominion Nuclear Connecticut, Inc. (DNC) submitted a letter dated April 28, 2009 requesting approval to use alternative examination and testing requirements for Code Class 1, 2, 3, and MC snubbers at Millstone Power Station Unit 3 (MPS3). The April 28, 2009, letter requested authorization to apply the visual and functional testing requirements that are prescribed by MPS3 Technical Specification 4.7.10 (including sampling and frequency requirements) as an alternative to performing inservice examination and testing in accordance with ASME/ANSI OM, Part 4, as required by IWF-5300, in Subsection IWF of the 2004 Edition of Section XI. In a letter dated December 1, 2009, the NRC transmitted a request for additional information (RAI). The NRC requested that DNC respond to the RAI by December 18, 2009.

Attachment 1 provides the DNC response to the NRC RAI addressing questions 1 through 7.

If you should have any questions regarding this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,

J. Alan Price
Vice President – Nuclear Engineering

Attachments:

1. Relief Request IR-3-01 Response to Request for Additional Information Regarding Snubber Inspection and Testing for Third 10-Year Interval

Commitments made in this letter:

1. None

cc: U.S. Nuclear Regulatory Commission
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ATTACHMENT 1

RELIEF REQUEST IR-3-01 RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING SNUBBER INSPECTION AND TESTING FOR THIRD 10-YEAR INTERVAL

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3

By letter dated April 28, 2009 (Agencywide Document Access and Management System Accession (ADAMS) No. ML091310666), Dominion Nuclear Connecticut, Inc. (DNC) submitted Relief Request IR-3-01 for Millstone Power Station, Unit No. 3 (MPS3). The April 28, 2009, letter requested authorization of the proposed alternative examination and testing requirements for Code Class 1, 2, 3, and MC snubbers. In a letter dated December 1, 2009, the NRC transmitted a request for additional information (RAI). The following is the response to the RAI questions:

NRC QUESTION 1:

The licensee requested an alternative to the requirements of IWF-5300 of Article IWF-5000. Article IWF-5000 also contains requirements for snubber preservice examinations and tests in IWF-5200. Please explain how the requirements of IWF-5200(a), (b), and (c) will be met.

DNC RESPONSE:

DNC does not seek relief from the requirements of IWF-5200(a), (b), and (c). Therefore, MPS3 will meet the requirements of IWF-5200(a), (b), and (c).

NRC QUESTION 2:

The second paragraph of section 5 of IR-3-01 states that "An alternative 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 [TS] Table 4.7-2 [Snubber Visual Inspection Interval], invoked from MPS3 TS 4.7.10.b. Because it will reduce future occupational radiation exposure and is highly cost effective, this is consistent with NRC policy." Please explain how TS Table 4.7-2 meets the schedule as specified in OM-4.

DNC RESPONSE:

Technical Specifications (TS) Table 4.7-2 represents an alternative schedule for snubber visual inspections consistent with the requirements of GL 90-09 rather than OM-4. The inspection interval is based on the snubber population and the number of unacceptable snubbers. Historically, the number of unacceptable visual snubber inspections at MPS3 is one or less. OM-4, paragraph 2.3.2.2, bases the inspection frequency on the number of unacceptable snubbers but does not take into consideration the snubber population. GL 90-09 acknowledges that the visual inspection schedule specified in OM-4 is excessively restrictive and that plants with large snubber populations may spend a significant amount of resources and subject plant personnel to unnecessary radiological exposure to ensure verbatim compliance with the visual examination requirements of OM-4. The alternative visual inspection schedule of TS

Table 4.7-2 is similar to the recommendations on snubber visual inspection frequencies contained in Generic Letter 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions."

NRC QUESTION 3:

IWF-5000, Subarticle IWF-5400, "Repairs and Replacement," requires that repair or replacement of snubbers shall be in accordance with IWA-4000 and that repaired or replacement snubbers shall be examined and tested in accordance with the applicable requirements of Subarticle IWF-5200 prior to return to service. Please explain how MPS3, TS SR 4.7.10, meets these requirements of IWF-5400.

DNC RESPONSE:

IR-3-01 does not request relief from IWF-5400. Repairs and replacements of snubbers will be performed in accordance with IWA-4000 and preservice examinations and tests will be performed in accordance with IWF-5200.

NRC QUESTION 4:

Please explain how snubber functional test in accordance with MPS3 TS Figure 4.7-1 as specified in TS SR 4.7.10.e(2) meets the functional test requirements of the "37 testing sample plan" Figure C1 of Appendix C of the OMa-1988.

DNC RESPONSE:

The sample plan using TS Figure 4.7-1 is consistent with the 37 testing sample plan using Figure C1 of Appendix C of the OMa-1988. In TS Figure 4.7-1, the accept line is shown with the equation of $C = 0.055N - 2.007$. "C" is the number of snubbers found which do not meet the functional test acceptance criteria and "N" is the cumulative number of a type tested. Solving for N, the equation becomes $N = 36.49 + 18.18C$, which is used in newer versions of the OM code. This provides the statistical basis to establish a 95% confidence that 90% of the group's snubbers are operable.

The 1987 edition 88 addenda of the OM Code also includes a reject criterion for the 37 plan. According to this plan, if at any point in the course of the testing, the number of snubbers found not to meet the functional test acceptance criteria exceeds the quantity $(0.055N + 2.007)$, where N is equal to the total number of snubbers tested, the entire population must be rejected. MPS3 TS Figure 4.7-1 does not include a reject criterion. The rejection criterion in the 1987 edition 88 addenda of the OM Code was removed from the OM Code in the 1990 edition which was endorsed by the NRC. Since the NRC has approved removal of the rejection criterion from the OM Code, use of the sample plan using TS Figure 4.7-1 is consistent with the OM Code.

NRC QUESTION 5:

MPS3 TS SR 4.7.10.e uses functional testing sample plans: (1) 10% sample plan; (2) sample plan based on Figure 4.7-1; and (3) 55 sample plan. Please explain when using Figure 4.7-1 (see question 5 above) or the 55 sample plan, that the additional sampling of at least one-half the size of the initial sample lot requirement of Section 3.2.3.2(b) of the OM-4 will be met.

DNC RESPONSE:

MPS3 TS SR 4.7.10.e (2) states "a representative sample of each type of snubber shall be functionally tested in accordance with Figure 4.7-1." The "Accept" line 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 one-half the size of the initial sample.

MPS3 does not currently use the 55 plan. However, MPS3 TS SR 4.7.10.e (3) states "at least one-half the size of the initial sample shall be tested" for every failure as depicted by the equation N = 55(1 + C/2).

NRC QUESTION 6:

The requested alternative and TS SR 4.7.10 do not address the requirements of OM-4, Section 3.2.4, specifically Section 3.2.4.2, "Test Failure Mode Groups," related to functional testing of snubbers. Please explain how the MPS3 TS meets this requirement.

DNC RESPONSE:

The OMa-1988 Code paragraph 3.2.4.2 states that unacceptable snubber(s) shall be categorized into failure mode group(s). 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. Failure mode grouping is a method to determine the extent of condition of a failure, and the population or grouping for sample expansion. MPS3 TS SR 4.7.10.g states that an engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The results of this evaluation shall be used in selecting snubbers to be tested in an effort to determine the OPERABILITY of other snubbers irrespective of type which may be subject to the same failure mode. If any snubber selected for functional 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 or design deficiency, all snubbers of the same type subject to the same defect shall be functionally tested. This testing requirement is maintained independent of the requirements in Specification 4.7.10e. for snubbers not meeting the functional test acceptance criteria. This requirement is addressed in MPS3 procedure

SP-31140. Changes to MPS3 procedure SP-31140 are controlled under the provisions of 10 CFR 50.59.

NRC QUESTION 7:

The applicable Code for the MPS3 ISI program is ASME Section XI, 2004 Edition. Please explain how MPS3 meets the requirements of IWA-6230, "Summary Report Preparation," for snubber visual examination and testing.

DNC RESPONSE:

IR-3-01 does not request relief from IWA-6230. The Summary Report Preparation is submitted in accordance with the requirements of Code Case N-532-4, which is an acceptable alternative to IWA-6230.