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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
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Serial No. 06-0001B
NL&OS/PRW R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
APPLICATION FOR TECHNICAL SPECIFICATION IMPROVEMENT
REGARDING STEAM GENERATOR TUBE INTEGRITY
(TAC NO. MD2570)

In a letter dated May 31, 2006, Dominion Nuclear Connecticut, Inc. (DNC) submitted a request to revise the steam generator tube integrity requirements in the Technical Specifications for Millstone Power Station Unit 2 (MPS2) consistent with NRC-approved Revision 4 to Technical Specification Task Force (TSTF) Traveler TSTF-449, "Steam Generator Tube Integrity."

In a facsimile dated March 20, 2007, the NRC forwarded a request for additional information (RAI). The response to the RAI is provided in Attachment 1 to this letter. Revised marked up pages for MPS2 are provided in Attachment 2. Marked up Bases pages are provided for information only.

The changes provided in this submittal do not affect the conclusions of the Safety Summary and Significant Hazards Consideration discussion in the DNC letter dated May 31, 2006.

If you have any questions in regard to the responses provided or require additional information, please contact Mr. David A. Sommers at (804) 273-2823.

Very truly yours,

Gerald T. Bischof
Vice President – Nuclear Engineering

Commitments in this letter: None

Attachments: (2)

1. Response to Request for Additional Information.
2. Revised Marked Up Pages.

cc: U.S. Nuclear Regulatory Commission
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ATTACHMENT 1

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

**DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2**

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
MILLSTONE POWER STATION UNIT 2

By letter dated May 31, 2006, Dominion Nuclear Connecticut, Inc. (DNC), submitted a request to revise the steam generator tube integrity requirements in the Technical Specifications (TS) for Millstone Power Station Unit 2 (MPS2). In order for the Nuclear Regulatory Commission (NRC) staff to complete its review, responses to the following questions were requested.

NRC Question No. 1

In your February 14, 2007, letter, you indicated that you would be removing reference to sleeving (i.e., a repair method) in your [MPS2] technical specifications (refer to response to question 4). In doing so, it appears that a few references to sleeving (repair) were not deleted. Discuss your plans to remove the remaining references to tube repair in your [MPS2] technical specifications (e.g., in the second sentence of proposed Technical Specification 6.26a; in the second paragraph of the Limiting Condition for Operation Section in the Steam Generator Tube integrity Bases Section; and in the last paragraph of the Actions a.1 and a.2 Section in the Steam Generator Tube Integrity Bases Section).

DNC Response

DNC is in agreement that each identified reference to a provision for sleeving of steam generator tubes as a repair option requires removal in the proposed MPS2 TSs and in the Bases pages that were provided for information. Accordingly, Attachment 2 contains the revised marked up TS and Bases pages that did not previously remove the repair option. (Attachment 2 has corrected pages that include the first page of TS Insert 6.26, and the first and fourth pages of the Bases Insert B 3/4.4.5.)

NRC Question No. 2

In removing reference to tube repair in proposed [MPS2] TS 6.26.a, a typographical error was introduced. Please discuss your plans to modify [MPS2] TS 6.26.a to indicate that steam generator tubes are inspected or plugged to confirm that the performance criteria are being met. This typographical error also exists in Technical Specification Task Force (TSTF) Traveler TSTF-449.

DNC Response

DNC agrees that a typographical error was introduced and has corrected this text in the replacement marked up page of the first page of TS Insert 6.26. (Refer to Attachment 2.)

ATTACHMENT 2

APPLICATION FOR TECHNICAL SPECIFICATION IMPROVEMENT
REGARDING STEAM GENERATOR TUBE INTEGRITY
(TAC NO. MD2570)

REVISED MARKED UP PAGES

The Millstone Technical Specifications Bases Control Program controls revisions to the bases insert pages that are provided for information only in this submittal.

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2

INSERT 6.26

Revised first page
of TS Insert 6.26

6.26 Steam Generator (SG) Program

A Steam Generator Program shall be established and implemented to ensure that SG tube integrity is maintained. In addition, the Steam Generator Program shall include the following provisions:

- a. Provisions for condition monitoring assessments: Condition monitoring assessment means an evaluation of the “as found” condition of the tubing with respect to the performance criteria for structural integrity and accident induced leakage. The “as found” condition refers to the condition of the tubing during a SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging of tubes. Condition monitoring assessments shall be conducted during each outage during which the SG tubes are inspected or plugged to confirm that the performance criteria are being met.
- b. Provision for performance criteria for SG tube integrity: SG tube integrity shall be maintained by meeting the performance criteria for tube structural integrity, accident induced leakage, and operational LEAKAGE.
 1. Structural integrity performance criterion: All in-service steam generator tubes shall retain structural integrity over the full range of normal operating conditions (including STARTUP, operation in the power range, HOT STANDBY, and cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.

INSERT B 3/4.4.5

3/4.4.5

STEAM GENERATOR TUBE INTEGRITY

Revised first page
of Insert B 3/4.4.5

LCO

The LCO requires that steam generator (SG) tube integrity be maintained. The LCO also requires that all SG tubes that satisfy the repair criteria be plugged in accordance with the Steam Generator Program.

During a SG inspection, any inspected tube that satisfies the Steam Generator Program repair criteria is removed from service by plugging. If a tube was determined to satisfy the repair criteria but was not plugged, the tube may still have tube integrity.

In the context of this Specification, a SG tube is defined as the entire length of the tube, including the tube wall between the tube-to-tubesheet weld at the tube inlet and the tube-to-tubesheet weld at the tube outlet. The tube-to-tubesheet weld is not considered part of the tube.

A SG tube has tube integrity when it satisfies the SG performance criteria. The SG performance criteria are defined in Specification 6.26, "Steam Generator Program," and describe acceptable SG tube performance. The Steam Generator Program also provides the evaluation process for determining conformance with the SG performance criteria. There are three SG performance criteria: structural integrity, accident induced leakage, and operational LEAKAGE. Failure to meet any one of these criteria is considered failure to meet the LCO.

The structural integrity performance criterion provides a margin of safety against tube burst or collapse under normal and accident conditions, and ensures structural integrity of the SG tubes under all anticipated transients included in the design specification. Tube burst is defined as, "The gross structural failure of the tube wall. The condition typically corresponds to an unstable opening displacement (e.g., opening area increased in response to constant pressure) accompanied by ductile (plastic) tearing of the tube material at the ends of the degradation." Tube collapse is defined as, "For the load displacement curve for a given structure, collapse occurs at the top of the load versus displacement curve where the slope of the curve becomes zero." The

Revised fourth page
of Insert B 3/4.4.5

inspection. If it is determined that tube integrity is not being maintained, ACTION b. applies.

A Completion Time of 7 days is sufficient to complete the evaluation while minimizing the risk of plant operation with a SG tube that may not have tube integrity.

If the evaluation determines that the affected tube(s) have tube integrity, ACTION a.2 allows plant operation to continue until the next refueling outage or SG inspection provided the inspection interval continues to be supported by an operational assessment that reflects the affected tube(s). However, the affected tube(s) must be plugged prior to entering HOT SHUTDOWN following the next refueling outage or SG inspection. This Completion Time is acceptable since operation until the next inspection is supported by the operational assessment.

b.1 and b.2

If the ACTIONS and associated Completion Times of ACTION a. are not met or if SG tube integrity is not being maintained, the reactor must be brought to HOT STANDBY within 6 hours and COLD SHUTDOWN within 36 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the desired plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE
REQUIREMENTS

TS 4.4.5.1

During shutdown periods the SGs are inspected as required by this SR and the Steam Generator Program. NEI 97-06, Steam Generator Program Guidelines (Reference 1), and its referenced EPRI Guidelines, establish the content of the Steam Generator Program. Use of the Steam Generator Program ensures that the inspection is appropriate and consistent with accepted industry practices.

During SG inspections a condition monitoring assessment of the SG tubes is performed. The condition monitoring assessment determines the "as found" condition of the SG tubes. The purpose of the condition monitoring assessment