



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

November 21, 2008

Mr. David A. Christian  
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 – CORRECTION TO  
AMENDMENT NO. 245 RE: CHANGES TO TECHNICAL SPECIFICATION  
SECTION 6.8.4.g, "STEAM GENERATOR PROGRAM" AND SECTION 6.9.1.7,  
"STEAM GENERATOR TUBE INSPECTION REPORT" (TAC NO. MD8736)

Dear Mr. Christian:

On September 30, 2008, the Nuclear Regulatory Commission (NRC) issued Amendment No. 245 to Renewed Facility Operating License No. NPF-49 for the Millstone Power Station, Unit No. 3 (MPS3). This document is available in the Agencywide Documents Access and Management System under Accession No. ML082321292. Enclosed in the September 30, 2008, letter was revised pages for incorporation into the MPS3 Technical Specifications (TS).

Subsequently, your staff noted that there was a sentence included in Section 4.2.1 on page 6 of the Safety Evaluation (SE) which was not applicable to MPS3 and that there was a typographical error on TS page 6-17d. The NRC staff reviewed the pages in questions, and agrees with your staff. Accordingly, a revised page 6 of the SE and a revised TS page 6-17d are enclosed in this letter. These revisions do not alter the conclusions in the SE as issued on September 30, 2008.

If you have any additional questions regarding this matter, I may be reached via telephone at (301) 415-1603.

Sincerely,

A handwritten signature in black ink, appearing to read "Carleen J. Sanders".

Carleen J. Sanders, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures:

1. Revised page 6 of SE
2. Revised TS page 6-17d

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*assumed to be from one SG) during the cycle preceding the inspection which is the subject of the report, and*

- k. Following completion of an inspection performed in Refueling Outage 12 (and any inspections performed in the subsequent operating cycle), the calculated accident leakage rate from the portion of the tube below 17 inches from the top of the tubesheet for the most limiting accident in the most limiting steam generator.*

## 4.2 Technical Evaluation

The tube-to-tubesheet joint consists of the tube, which is hydraulically expanded against the bore of the tubesheet; the tube-to-tubesheet weld located at the tube end; and the tubesheet. The joint was designed as a welded joint and not as a friction or expansion joint. The weld itself was designed as a pressure boundary element. It was designed to transmit the entire end-cap pressure load during normal and DBA conditions from the tube to the tubesheet with no credit taken for the friction developed between the hydraulically expanded tube and the tubesheet. In addition, the weld serves to make the joint leak tight.

The proposed amendment treats the tube-to-tubesheet joint as a welded joint in a manner consistent with the original design basis, with no credit taken for the friction developed between the hydraulically expanded tube and the tubesheet. The proposed amendment is intended to ensure that the aforementioned end-cap loads can be transmitted down the tube, through the tube-to-tubesheet weld, and into the tubesheet.

### 4.2.1 Proposed Change to TS 6.8.4.g.c, "Provisions for SG tube repair criteria"

MPS3's current TS 6.8.4.g.c states that "Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged." The 40 percent depth-based tube repair criterion in TS 6.8.4.g.c is intended to ensure, in conjunction with other elements of TS 6.8.4.g, that tubes accepted for continued service (i.e., not plugged) satisfy the performance criteria for structural integrity in TS 6.8.4.g.b.1 and the performance criteria for accident leakage integrity in TS 6.8.4.g.b.2. The criterion includes an allowance for eddy current measurement error and incremental flaw growth prior to the next inspection of the tube. The proposed IARC in the proposed amendment is an alternative to the 40 percent depth-based criterion.

#### 4.2.1.1 Structural Integrity Considerations

The 40 percent depth-based criterion was developed to be conservative for flaws located anywhere in the SG, including free span regions. In the tubesheet, however, the tubes are constrained against radial expansion by the tubesheet and, therefore, are constrained against an axial (fish-mouth) rupture failure mode. The only potential structural failure mode within the tubesheet is a circumferential failure mode, leading to tube severance.

The proposed IARC would permit tubes with up to 100 percent through-wall flaws in the portion of the tube from 17 inches below the TTS to 1 inch above the bottom of the tubesheet to remain in service provided the circumferential component of these flaws does not exceed 203 degrees. The 203-degree criterion was determined on the basis of the remaining cross-sectional area of

## ADMINISTRATIVE CONTROLS

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### PROCEDURES AND PROGRAMS (Continued)

associated with a crack(s), then the indication need not be treated as a crack.

- e. Provisions for monitoring operational primary to secondary LEAKAGE.

- h. Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Ventilation System (CREVs), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

- a. The definition of the CRE and the CRE boundary.
- b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.
- c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

The following are exceptions to Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0:

1. Appropriate application of ASTM E741 shall include the ability to take minor exceptions to the test methodology. These exceptions shall be documented in the test report, and
2. Vulnerability assessments for radiological, hazardous chemical and smoke, and emergency ventilation system testing were completed as documented in the UFSAR and other licensing basis documents. The exceptions to the Regulatory Guides (RG) referenced in RG 1.196 (i.e., RG 1.52, RG 1.78, and

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