

August 11, 2004

MEMORANDUM TO: Samson S. Lee, Chief
License Renewal Section
License Renewal and Environmental Impacts Branch
Division of Regulatory Improvement Programs

FROM: A. Louise Lund, Chief */RA/*
Steam Generator Integrity & Chemical Engineering Section
Materials and Chemical Engineering Branch
Division of Engineering

SUBJECT: MILLSTONE POWER STATION UNITS 2 & 3 LICENSE
RENEWAL APPLICATION: REQUEST FOR ADDITIONAL
INFORMATION (TAC NOS.: MC1825 AND MC1826)

The Steam Generator Integrity & Chemical Engineering Section staff of the Materials and Chemical Engineering Branch is reviewing the following sections in the license renewal application for Millstone Power Station Units 2 & 3.

Table 3.1.1 Reactor Coolant System (steam generator related items)
Table 3.1.2-4 Steam Generators
B2.1.22 Steam Generator Structural Integrity Aging Management Program

The staff has reviewed the information and determined that additional information is required in order to complete its evaluation. The additional information being requested is attached.

Docket Nos.: 50-336 and 50-423

Attachment: As stated

CONTACT: Yamir Diaz, EMCB/DE
415-2228

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REQUEST FOR ADDITIONAL INFORMATION
FOR DOMINION NUCLEAR CONNECTICUT
LICENSE RENEWAL APPLICATION FOR
MILLSTONE POWER STATION UNITS 2&3
DOCKET NOS. 50-336 AND 50-423

Questions on LRA B2.1.22, Steam Generator Structural Integrity Aging Management Program

RAI B2.1.22-1

On page B-95 of the Unit 2 LRA and page B-96 of the Unit 3 LRA, the applicant states: "The Steam Generator Structural Integrity program does not require enhancement to be consistent with the aging management program described in NUREG-1801, Section XI.M20, "Open Cycle Cooling Water System." However, Section XI.M20 of NUREG-1801 does not make any reference to Section XI.M19, "Steam Generator Tube Integrity." The staff requests the applicant to clarify this statement.

RAI B2.1.22-2

Table 3.1.2-4, The applicant identifies the GALL steam generator AMP, XI.M19 as the AMP to manage the aging effect loss of material in the tubesheet (and cladding) for both units. The GALL steam generator AMP, XI.M19, does not address the steam generator tubesheet (and cladding). Therefore, the applicant must provide details for the following aging management program attributes for this component: Preventive Actions; Parameters Monitored/Inspected; Detection of Aging Effects; Monitoring and Trending; and Acceptance Criteria.

Questions on LRA Table 3.1.2-4, Steam Generator

RAI 3.1.2-4-1

The applicant identifies the GALL in-service inspection AMP, XI.M1 as the AMP to manage the aging effect of cracking in the base support and flange, support brackets and lugs for Unit 3. The GALL in-service inspection AMP, XI.M1, does not address the base support and flange, support brackets and lugs. Therefore, the applicant must provide details for the following aging management program attributes for these components: Preventive Actions; Parameters Monitored/Inspected; Detection of Aging Effects; Monitoring and Trending; and Acceptance Criteria.

RAI 3.1.2-4-2

Unit 2. In GALL IV.D1.1-j and GALL IV.D1.2-j, the staff identifies primary water stress corrosion cracking (PWSCC) as an aging effect for the primary instrument nozzles and tube plugs under treated water, respectively. Table 3.1.2-4 of the applicant's LRA indicates that the aging effect is cracking. The staff requests the applicant to identify the mechanism for cracking in the

primary instrument nozzles and tube plugs (e.g., PWSCC, ODSCC, etc.). If the mechanism is not consistent with GALL, the applicant should discuss how the aging effect is managed.

RAI 3.1.2-4-3

Units 2&3. In GALL IV.D1.1-l, the staff identifies stress corrosion cracking (SCC) as an aging effect and Bolting Integrity as the AMP for the primary manway bolting in the air environment. However, for this component, the applicant identifies the aging effect as cracking and the Inservice Inspection as the AMP. The staff requests the applicant to clarify the mechanism for cracking and how the Inservice Inspection AMP is used to manage this aging effect similar to the GALL recommended Bolting Integrity AMP.

RAI 3.1.2-4-4

Units 2&3. In GALL IV.D1.1-f, the staff identifies loss of preload and stress relaxation as the aging effects for secondary manway and handhole bolting in the air environment. For this component, the applicant identifies the only aging effect as cracking and the Inservice Inspection as the AMP. The staff requests the applicant to justify why loss of preload and stress relaxation are not applicable aging effects and if these aging effects are applicable, how these are managed.

RAI 3.1.2-4-5

Unit 2. Table 3.1.2-4 of the applicant's LRA states that the aging effect for the tube support lattice rings is loss of material. The staff believes cracking is also a potential aging effect. The staff requests the applicant to justify why cracking is not considered an aging effect for the tube support lattice rings under treated water and steam.