

Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385



DominionSM

FEB 28 2002

Docket No. 50-336

B18596

RE: 10 CFR 50.55a(a)(3)(i)

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

Millstone Nuclear Power Station, Unit No. 2
Request RR-89-35 Modifications Regarding Use of Mechanical Nozzle Seal
Assemblies for Pressurizer Heater Penetration Nozzles (TAC No. MB4039)

In a letter dated February 19, 2002,⁽¹⁾ Dominion Nuclear Connecticut, Inc. (DNC), submitted a request to use mechanical nozzle seal assemblies (MNSAs) as an alternate repair method pursuant to 10 CFR 50.55a(a)(3)(i) for Millstone Unit No. 2. On February 25, 2002, a conference call with the U.S. Nuclear Regulatory Commission (NRC) identified six items which required a response by DNC. Please find these responses in Attachment 1.


DNC is hereby requesting the NRC staff review and approve the proposed alternative to support the startup (Mode 4) of Millstone Unit No. 2, currently scheduled for March 14, 2002, from the current refueling outage.

There are no regulatory commitments contained within this letter.

Should there be any questions regarding this submittal, please contact Mr. Ravi G. Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONECTICUT, INC.



J. Alan Price
Site Vice President - Millstone

cc: See next page

⁽¹⁾ J. Alan Price letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Request RR-89-35 to Use an Alternative to ASME Code Section XI By Employing the Application of Mechanical Nozzle Seal Assemblies - Pressurizer Heater Penetration Nozzles," dated February 19, 2002 (B18579).

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Attachment (1)

cc: H. J. Miller, Region I Administrator
J. T. Harrison, NRC Project Manager, Millstone Unit No. 2
NRC Senior Resident Inspector, Millstone Unit No. 2

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Request RR-89-35 Modifications Regarding Use of Mechanical Nozzle Seal
Assemblies for Pressurizer Heater Penetration Nozzles -
Response to Items Discussed During the February 25, 2002, Conference Call

Request RR-89-35 Modifications Regarding Use of Mechanical Nozzle Seal
Assemblies for Pressurizer Heater Penetration Nozzles -
Response to Items Discussed During the February 25, 2002, Conference Call

- "1. The NRC to date has considered mechanical nozzle seal assemblies to be a temporary repair for leakage from cracking between the alloy 600 penetration and the J-weld to the base material. Please revise your submittal to limit the use of the MNSA for a period not to exceed two operating cycles."***

RESPONSE:

Dominion Nuclear Connecticut, Inc. (DNC), has decided to modify its request RR-89-35 for long-term use of the pressurizer heater penetrations mechanical nozzle seal assemblies (MNSAs), and requests that the staff approve interim use, through refueling outage 16, contingent on acceptable visual inspection results of the MNSAs, conducted in accordance with ASME Code, Section XI. This results in a request for use of the MNSAs for a period that does not exceed two operating cycles.

- "2. Regarding the effectiveness of the MNSA what steps will MNSP [Millstone Unit No. 2] take to assure that the surface of the pressurizer (OD) is in a condition to assure that the MNSA will seal correctly."***

RESPONSE:

The condition of the surface of the pressurizer OD will assure that the MNSA will seal correctly. The installation procedure for the MNSAs has a step to check that the surface of the pressurizer around the nozzle is suitable for the graphoil seal. The technicians are instructed on what constitutes an acceptable surface. Should the surface be deemed unacceptable, the area is properly prepared with a flapper wheel. This guidance has been effective for successful installations of the MNSA at other facilities.

- "3. What inspections have MNSP [Millstone Unit No. 2] performed in the area of the leakage to the J-groove weld, the nozzle, the pressurizer wall surrounding the nozzle, and to verify pressurizer thickness."***

RESPONSE:

Millstone Unit No. 2 has performed a visual examination of the leaking nozzles. An informational ultrasonic test (UT) has been performed to determine a thickness measurement near the nozzles. A comparison of the data will be made between

the leaking and non-leaking penetrations to evaluate if any measurable corrosion damage is present around the leaking nozzle.

“4. Millstone states that it intends to do a system leak check and bolting check as required in Section XI, please clarify that these checks include the following.”

“a. As required by IWA-4820, a VT-1 preservice inspection will be performed on all MNSA installation in accordance with IWB-2200.”

“b. During plant startup (Mode 3) after initial MNSA installation and during subsequent plant restarts following outages, the pressurizer heater penetration nozzle MNSAs will be pressure tested and inspected for leakage. To ensure quality of installation and continued operation with the absence of leakage, a pressure test with visual inspection will be performed on each of the installed MNSAs with any insulation removed. The test will be performed as part of plant re-start and will be conducted at normal operating pressure with the test temperature determined in accordance with the MNPS [Millstone Unit No. 2] Pressure and Temperature Limits as stated in the MNPS [Millstone Unit No. 2] Technical Specifications. Additionally, VT-3 exams will be performed to verify general structural and mechanical condition of the MNSAs.”

RESPONSE:

Millstone intends to do a system leak check and bolting check as required in Section XI. These checks will include the following:

- a. As required by IWA-4600, Section XI, 1989 Edition, Millstone Unit No. 2 will perform a VT-1, pre-service inspection, on all MNSA installations in accordance with IWB-2200.
- b. During plant startup (Mode 3), after initial MNSA installation and during subsequent plant restarts following a refueling outage, the pressurizer heater penetration nozzle MNSAs will be pressure tested and inspected for leakage. To ensure quality of the installation and continued operation with the absence of leakage, a pressure test with VT-2 visual examination will be performed on each of the installed MNSAs with any insulation removed. The test will be performed as part of plant re-start and will be conducted at normal operating pressure with the test temperature determined in accordance with the Millstone Unit No. 2 pressure and temperature limits as stated in the Millstone Unit No. 2 Technical Specifications. Because both VT-1 inspection and VT-2 exams will be completed, no VT-3 exams will be performed.

- “5. In section 4.2 of your submittal MNSP [Millstone Unit No. 2] identify a Design Stress Report that is being prepared, please provide that report to the NRC prior to restart of Unit 2.”***

RESPONSE:

The Design Stress Report, as described in section 4.2 of request RR-89-35, will be provided to the staff prior to startup.

- “6. Confirm that no MNSA repairs have been installed previously at the Millstone plant.”***

RESPONSE:

There have been no previous installations of MNSA type repairs at Millstone Unit No. 2.