

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



Dominion

RE: 10 CFR 50.55a(a)(3)(i)
10 CFR 50.55a(g)(5)(iii)
10 CFR 50.55a(g)(4)(iv)

September 15, 2003

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

Serial No.: 03-481
B18986
NL&OS/PRW Rev 0
Docket No.: 50-336
License No.: DPR-65

Dominion Nuclear Connecticut, Inc. (Dominion)
Millstone Power Station, Unit No. 2
Revision to Requirements of Alternative Request RR-89-34, Revision 1 for Repair
of Reactor Pressure Vessel Head Penetration Nozzles

Dominion Nuclear Connecticut, Inc. (DNC) submitted Request RR-89-34, Revision 1, for Millstone Unit No. 2 during refueling outage (RFO14) to support weld repairs performed on reactor pressure vessel (RPV) head control element drive mechanism (CEDM) penetration nozzles. The U.S. Nuclear Regulatory Commission (NRC) provided verbal authorization for the proposed repairs during the refueling outage and then subsequently provided a written safety evaluation on October 2, 2002.⁽¹⁾

This letter requests approval of a Revision 2 to the approved alternative request. The revision removes the requirement for abrasive water jet conditioning of the final surface of the weld. This is a change to the Enclosure 1, Section 1.0, "General Requirements," and Paragraph (f) of the Alternative Request RR-89-34, Revision 1, that was submitted March 13, 2002.⁽²⁾ These general requirements were taken from similar provisions of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Case N-638, "Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW [Gas Tungsten Arc Welding] Temper Bead Technique," Section XI, Division 1. The Code Case is now accepted for use with no limitations in Regulatory Guide 1.147, Revision 13. Since the requirement of paragraph (f) is permissive in the Code Case our option to use an abrasive water jet conditioning of the weld would have been simply an enhancement of the acceptable requirements today and not mandatory.

The water jet conditioning was originally included in the general requirements to enhance future resistance to primary water stress corrosion cracking (PWSCC) in the repaired nozzle. The conditioning was considered by DNC to be prudent during RFO14 when factoring in the possibilities for the service life of the repaired head. More

⁽¹⁾ NRC letter, "Safety Evaluation of Relief Requests RR-89-34 and RR-89-36, Repair of Reactor Pressure Vessel Head Penetration Nozzles, Millstone Power Station, Unit No. 2 (TAC No. MB4223)," dated October 2, 2002 (Accession No. ML022280126).

⁽²⁾ DNC letter, "Millstone Nuclear Power Station, Unit No. 2, ASME Section XI Request (RR-89-34, Revision 1), Use of Alternative to Weld Repair Requirements and Relief Request (RR-89-36), Characterization and Successive Examinations of Remaining Flaws in Reactor Vessel Head Penetrations (TAC No. MB4223)," dated March 13, 2002 (Accession No. ML020860572).

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recently, however, DNC considers the water jet conditioning to be unnecessary, given the requirement from NRC Order EA-03-009 for volumetric inspections of the RPV head penetration nozzles each refueling outage. The volumetric examinations required by the Order EA-03-009 ensure that structural integrity of the repair welds in nozzles can be maintained. Regardless of the conditioning, all required inspections following a repair would be performed, including required inspections during subsequent refueling outages of the RPV head penetration nozzles. The proposed alternative requirements will continue to be verified by the proposed repair and inservice examinations to ensure adequate structural integrity. Consequently, DNC considers that this Alternative Request RR-89-34, Revision 2, maintains the same level of quality and safety.

DNC requests approval of the proposed revision to this request by October 30, 2003, to support inspection activities scheduled during the upcoming Fall 2003 refueling outage.

There are no regulatory commitments contained within this letter.

If you should have any questions regarding this submittal, please contact Mr. Paul R. Willoughby at (804) 273-3572.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.



Leslie N. Hartz
Vice President – Nuclear Engineering

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

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Leslie N. Hartz, who is Vice President - Nuclear Engineering, of Dominion Nuclear Connecticut, Inc. She has affirmed before me that she is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged before me this 15th day of September, 2003.

My Commission Expires: March 31, 2004.

Maggie McClure

Notary Public

