

**From:** Guzman, Richard  
**Sent:** Tuesday, November 17, 2015 8:32 PM  
**To:** 'wanda.d.craft@dom.com'  
**Subject:** Millstone Unit 2 - Acceptance Review Determination - Revision to Alternative Request RR-04-20 (MF6982)

Wanda,

By a letter dated October 18, 2015, Dominion Nuclear Connecticut, Inc. (DNC) submitted a revision to Alternative Request RR-04-20, "Use of Weld Overlays as an Alternative Repair and Mitigation Technique," for Millstone Power Station Unit 2, which was approved by the U.S. Nuclear Regulatory Commission (NRC) on April 24, 2015 (ADAMS Accession No. ML15082A409.) In its October 18, 2015 letter, DNC requested to modify its previously approved alternative request by eliminating the RR-04-20 requirement to perform liquid penetrant (PT) examination of the base material prior to performing weld overlays.

On October 19, 2015, the NRC staff communicated its verbal authorization of DNC's revision to Alternative Request RR-04-20 (ADAMS Accession No. ML15292A234).

The purpose of this e-mail is to provide the results of the NRC staff's acceptance review of the October 18, 2015, request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The NRC staff has reviewed DNC's application and concludes that it does provide technical information in sufficient detail to enable the NRC staff to complete its written safety evaluation. The current projection of the staff's completion of the formal safety evaluation is Feb 2016; you will be advised of any further information needed to support the staff's review via separate correspondence.

Thanks,  
Rich

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**Rich Guzman**  
**Sr. Project Manager**  
**NRR/DORL**  
**US NRC**  
**301-415-1030**

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**From:** Guzman, Richard  
**Sent:** Monday, October 19, 2015 10:57 AM  
**To:** 'wanda.d.craft@dom.com'  
**Cc:** [thomas.g.cleary@dom.com](mailto:thomas.g.cleary@dom.com)  
**Subject:** Millstone Unit 2 - Verbal Authorization by the NRC Staff - Revision to Alternative Request RR-04-20

Wanda,

Effective today, October 19, 2015, and as discussed in today's 9:30am call, the NRC staff communicated its verbal authorization of Dominion Nuclear Connecticut, Inc's (DNC, the licensee) revision to Alternative Request RR-04-20, submitted by DNC letter dated October 18, 2015, for the remainder of the current MPS2 fourth 10-year inservice inspection interval scheduled to end on March 31, 2020. Please see below transcript of the NRC staff's verbal authorization. This e-mail will be added to ADAMS as a publicly available official agency record, documenting the staff's aforementioned approval. The NRC staff's formal safety evaluation will be transmitted via separate correspondence. Please contact me if you have any questions regarding this licensing action.

Thanks,

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Rich Guzman  
Sr. Project Manager  
NRR/DORL  
USNRC  
301-415-1030

VERBAL AUTHORIZATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
REVISION TO ALTERNATIVE REQUEST RR-04-20  
MILLSTONE POWER STATION UNIT 2  
DOMINION NUCLEAR CONNECTICUT  
DOCKET NUMBER 50-336

**Technical Evaluation (Robert Wolfgang, Acting Chief of the Component Performance, Non-Destructive Examination, and Testing Branch, Office of Nuclear Reactor Regulation)**

By a letter dated October 18, 2015, Dominion Nuclear Connecticut, Inc. (the licensee) submitted a revision to Alternative Request RR-04-20 "Use of Weld Overlays as an Alternative Repair and Mitigation Technique," for Millstone Power Station Unit 2, which was approved by the U.S. Nuclear Regulatory Commission (NRC) on April 24, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15082A409.) The licensee seeks to modify its previously approved alternative request by eliminating the RR-04-20 requirement to perform liquid penetrant (PT) examination of the base material prior to performing weld overlays.

Pursuant to 10 CFR 50.55a(z)(2), the licensee seeks to eliminate the RR-04-20 requirement to perform a PT examination of the base metal prior to performing weld overlays on the basis that performing the PT examination prior to welding would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Following the installation of full structural weld overlays to the reactor coolant system hot leg drain line and cold leg letdown line welds, the licensee discovered that PT examinations required to be performed on base material prior to the installation of the weld overlays, as required by RR-04-20, were not performed in accordance the applicable examination procedure and, therefore, cannot be credited. The licensee seeks to credit the phased array ultrasonic examination of the final weld overlay in lieu of the pre-weld overlay base metal PT examination of the reactor coolant system hot leg drain line and reactor coolant system cold leg letdown line welds.

The licensee stated that rework of the overlaid welds, in order to comply with the pre-weld overlay base metal PT examination requirement, would result in significantly higher dose than the approximate 6.3 rem that was received from the initial weld overlay work. The licensee also stated that the phased array ultrasonic examinations, which included the weld overlay material, base metal interface, outer 25% of the underlying welds and adjacent base material, did not detect any recordable indications within the examination volume.

A phased array ultrasonic examination would most likely identify any flaws at the overlay/base material interface that could be detrimental to the structural integrity of the subject welds. The NRC staff has determined that the phased array ultrasonic examinations of the completed weld overlays, performed by the licensee, provides reasonable assurance of structural integrity and leak tightness of the subject welds. Rework of these welds, to meet the PT examination requirements of RR-04-20, would require the overlays to be removed, a PT examination to be performed and then reinstallation of the weld overlay. Given that the initial dose during the installation of the weld overlays was 6.3 rem, it is reasonable to believe that the dose received during the rework of the welds would be significantly higher. Therefore, the NRC staff finds the licensee's hardship justification acceptable.

**Authorization (Benjamin Beasley, Chief of the Plant Licensing Branch I-1 Office of Nuclear Reactor Regulation)**

As Chief of the Plant Licensing Branch I-1, Office of Nuclear Reactor Regulation, I concur with the Component Performance, Non-Destructive Examination, and Testing Branch's determinations.

The NRC staff has determined that the proposed revision to previously NRC approved Alternative Request RR-04-20 provides reasonable assurance of the leak tightness and structural integrity of the subject components. The NRC staff has concluded that complying with the pre-weld overlay PT examination requirement in RR-04-20 would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2).

Therefore, effective October 19, 2015, the NRC authorizes the use of the licensee revision to Alternative Request RR-04-20 for the remainder of the current Millstone Power Station Unit 2 fourth 10-year Inservice Inspection Interval scheduled to end on March 31, 2020

The NRC staff notes that all other ASME Code, Section XI requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable, including third party review by the Authorized Nuclear Inservice Inspector.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding the subject relief request while preparing the subsequent written safety evaluation.