

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



March 28, 2005

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

Serial No.: 05-138
NLOS/PRW Rev. 0
Docket No.: 50-423
License No.: NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
10 CFR 50.55a REQUEST RR-89-52, TEMPORARY NON-CODE REPAIR IN
SERVICE WATER SYSTEM BRAZED JOINTS
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

In a letter dated September 23, 2004, Dominion Nuclear Connecticut, Inc. (DNC) requested relief from the Section XI requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, pursuant to 10 CFR 50.55a(g)(5)(iii). The request was based upon the impracticality of performing ASME Code repairs to brazed joints on service water piping associated with a safety injection pump cooler during plant operation. In a letter dated February 25, 2005, the NRC requested additional information to facilitate the technical review being conducted by the staff.

DNC is providing a response to the request for additional information in the attachment to this letter.

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

Very truly yours,

Eugene S. Grecheck
Vice President – Nuclear Support Services

A047

Attachment

Commitments made in this letter: None.

**cc: U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415**

**Mr. G. F. Wunder
Senior Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8 B1 A
Rockville, MD 20852-2738**

**Mr. S. M. Schneider
NRC Senior Resident Inspector
Millstone Power Station**

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ATTACHMENT 1

**10 CFR 50.55a REQUEST RR-89-52, TEMPORARY NON-CODE REPAIR IN
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The response to the request for additional information is included in the balance of this attachment.

NRC Question 1

Please provide a description of the Millstone Power Station Unit No. 3 long-term service water brazed joint remediation plan.

DNC Response

The current long-term service water system brazed joint remediation plan is an on-going effort to replace service water system brazed joints at Unit 3 with welded joints and fittings that will both reduce maintenance and facilitate volumetric inspections and evaluations of joint structural integrity. The remediation plan systematically replaces service water system brazed joints during refueling outages and maintenance activities. This remediation plan supports the equipment and system reliability goals for both the service water system and systems that are supported by service water piping.

In September 2004, a review of service water system brazed joints identified on the order of 1000 brazed joints that can affect safety related functions and equipment. The review included 1.5 inch and larger sized piping. To prioritize the many brazed joints in the remediation plan, applicable limiting conditions for operation and the ability to isolate lines for maintenance were considered. This review was used to select joints to be replaced in refueling outage 3R10 in the fall of 2005. Future brazed joint replacements are planned in subsequent outages.

Additionally, DNC is evaluating the use of non-destructive examination techniques using ultrasonic testing for the characterization of brazed joint structural integrity. The development of an approved analysis technique for evaluating structural integrity in these service water system brazed joints complements DNC's planning to meet equipment and system reliability goals. DNC will seek NRC approval of this evaluation technique in the future.

NRC Question 2

In Section 6.2 of Attachment 1 of your letter dated September 23, 2004, you state that "A visual inspection was performed of the other three coolers, which included a total of 81 separate field joints, and no additional brazed joint leaks were identified." Are all field joints the same as brazed joints? If not, how many are brazed joints?

DNC Response

A walkdown was performed on the three similar coolers to identify if any of their brazed joints were leaking. In this instance, each of the 81 separate field joints was a brazed joint.

NRC Question 3

What is the current leakage from each of the joints? When and how (e.g., by required pressure testing or system walkdown) was the leakage first identified? Has the leakage changed since it was first identified?

DNC Response

The current leakage from the affected joints in this cooler is intermittent weepage. When weepage is present, the combined weepage from all affected joints totals a fraction of a drop per minute. The weepage path is constricted and can be easily blocked by particulate material in the service water. Current leakage remains far less than the assumed potential leakage described in the system interactions section of the relief request which responds to flooding and loss of flow considerations. The leakage was first identified during plant equipment operator rounds in August of 2004. The overall weepage has remained constant over time at less than a drop per minute in total.