

April 21, 2003

Mr. J. A. Price  
Site Vice President - Millstone  
Dominion Nuclear Connecticut, Inc.  
c/o Mr. David W. Dodson  
Rope Ferry Road  
Waterford, CT 06385

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - REQUEST FOR RELAXATION  
FROM SECTION IV.C(a)(1) OF THE ORDER ESTABLISHING INTERIM  
INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL HEADS,  
MILLSTONE POWER STATION, UNIT NO. 2 (TAC NO. MB8164)

Dear Mr. Price:

By letter dated March 28, 2003, you submitted a request for relaxation of requirements contained in Nuclear Regulatory Commission (NRC) Order EA-03-009, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel [RPV] Heads at Pressurized Water Reactors," dated February 11, 2003, for Millstone Power Station, Unit No. 2 (MP2). Specifically, you requested a one-time relaxation from Section IV.C(1)(a) of the Order, which requires a bare metal visual examination of 100 percent of the RPV head surface (including 360 degrees around each RPV head penetration nozzle).

The NRC staff is reviewing your submittal and has determined that the information contained in the enclosed request for additional information (RAI) will be needed for the staff to complete its review. An advance copy of these RAI questions was faxed to Mr. Ravi Joshi of your staff on April 16, 2003.

As discussed in your letter dated March 28, 2003, you requested that the NRC staff complete its review by May 30, 2003, to support planning for the MP2 fall 2003 refueling outage. Therefore, we request your response as soon as possible. If you have any questions, please contact me at (301) 415-1420.

Sincerely,

*/RA/*

Richard B. Ennis, Senior Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosure: As stated

cc w/encl: See next page

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Unit 2

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REQUEST FOR ADDITIONAL INFORMATION  
REQUEST FOR RELAXATION FROM SECTION IV.C(a)(1) OF THE ORDER  
ESTABLISHING INTERIM INSPECTION REQUIREMENTS  
FOR REACTOR PRESSURE VESSEL HEADS  
MILLSTONE POWER STATION, UNIT NO. 2  
DOCKET NO 50-336

By letter dated March 28, 2003, Dominion Nuclear Connecticut, Inc. (DNC or the licensee) submitted a request for relaxation of requirements contained in Nuclear Regulatory Commission (NRC) Order EA-03-009, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel [RPV] Heads at Pressurized Water Reactors," dated February 11, 2003, for Millstone Power Station, Unit No. 2. Specifically, the licensee requested a one-time relaxation from Section IV.C(1)(a) of the Order, which requires a bare metal visual examination of 100 percent of the RPV head surface (including 360 degrees around each RPV head penetration nozzle).

The NRC staff is reviewing the DNC submittal and has determined that the following information is needed for the staff to complete its review.

1. Section 5.0(A.1) of the licensee's submittal states, in part, that "In place of the BMV [Bare Metal Visual] examination of 100 percent of the RPV head surfaces, DNC proposes the use of ultrasonic (UT) scanning of the low alloy steel vessel head material from the clad surface underside of the vessel head. This inspection technique will scan for acceptable vessel head material thickness in the areas between nozzle penetrations. ... UT scanning will employ multiple transducers in a sled device that is manually manipulated along the underside of the vessel head. The sled will utilize beam patterns that will permit coverage of 100 percent of the external surface of the RPV head low alloy steel that is inaccessible to BMV examination. "
  - a. Describe the UT scanning that will be performed (i.e., beam angles, etc.).
  - b. What contingency plans are there for inspection of base metal adjacent to the downhill side of nozzles that may be shielded by the J-groove weld?
  - c. What is the volume percent coverage of the total volume of low alloy steel vessel head material that will be examined between nozzle penetrations using the UT technique from the clad surface underside of the vessel head?
  - d. If the volume percent coverage is less than 100 percent, provide justification for the acceptability of the reduced coverage in accordance with Section IV Paragraph F of NRC Order EA-03-009.

Enclosure

2. Section 5.0(A.1) of the licensee's submittal states, in part, that "If data reveals measurements that could represent significant degradation, the Millstone Station Corrective Action Program will be used to address the finding and additional nondestructive examinations (NDE) will be performed as appropriate."
  - a. What specific criteria will be used to define whether findings are "significant degradation"?
  - b. How does this criteria account for expected variability in the RPV head thickness?
  
3. Section 5.0(A.4) of the licensee's submittal states, "Additional NDE will be performed, should any indications suggest a potential for through wall flaws in the nozzle base material, degradation of the low alloy steel vessel head material, or evidence of leakage paths through the interference fit region. The NDE will include liquid penetrant testing of the nozzle base material and of the J-groove weld as needed to characterize flaws."
  - a. If a through-wall flaw in the nozzle base material, degradation of the low alloy steel vessel head material or a leakage path through the interference fit region is found, what specific additional NDE will be performed?
  - b. What findings would require a local or global bare metal visual inspection of the RPV head?