

June 28, 1988

Docket No. 50-336

Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
P.O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Mroczka:

SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2 INSERVICE TESTING
(TAC NO.59265)

We are in the process of reviewing the Inservice Testing Program for Millstone Unit 2. In order that we may complete our review, we request that you respond to the enclosed request for additional information within 60 days following receipt of this letter.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than 10 respondents; therefore, CMB clearance is not required under P.L. 96-511.

Sincerely

original signed by

David H. Jaffe, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II

Enclosure:
Request for Additional
Information

cc: w/enclosure
see next page

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MILLSTONE NUCLEAR POWER STATION, UNIT 2
 PUMP AND VALVE INSERVICE TESTING PROGRAM
 REQUEST FOR ADDITIONAL INFORMATION

1. Pump table (Table IWP) does not indicate that the following pump parameters are being measured:

<u>Pumps</u>	<u>Parameter</u>
Auxiliary Feedwater Pumps	Flow
H.P. Safety Injection Pumps	Flow
L.P. Safety Injection Pumps	Flow
Containment Spray Pumps	Flow
Charging Pumps	Differential Pressure
Boric Acid Pumps	Flow

These parameters must be measured as required unless relief is requested and approved. The licensee indicated in their response to question II.3 during the IST working meeting held August 26 and 27, 1987, that these pump parameters are being measured. The licensee also agreed during that meeting to include additional information in the pump listing table. Table IWP should be corrected to show the actual testing performed and any required relief requests should be provided.

2. Pump relief request RR-IWP-1 is a new relief request that has not been previously reviewed. IWP-3210 states that if the allowable ranges of Table IWP-3100-2 cannot be met, the owner shall specify in the record of tests the reduced range limits to allow the pump to fulfill its function, and those limits shall be used in lieu of the ranges given in the Code. Relief request RR-IWP-1, provided an adequate discussion for not meeting the maximum vibration velocity limits for the service water pumps, however, doubling the OM-6 limits may not be justified based on the historical test data for the service water pumps. Provide the test data and/or other information that demonstrates that the proposed limits are justified and will not permit continued operation with a seriously degraded pump.
3. The Code requires that check valves be exercised to their safety function position(s) to verify that they can go to that position(s) if

required to mitigate the consequences of an accident, take the plant to the safe shutdown condition, or to maintain the plant in the safe shutdown condition. It is the NRC staff position that listening for an audible sound is not a valid method of verifying a valve in the fully open position since the sound could result from any mechanical contact inside the valve body and does not necessarily indicate that the disk has contacted the stop. Valves 2-CS-5A and 5B (Relief Request RR-IWV-3) are never verified to full-stroke exercise open. This was left open for the licensee to resolve as discussed in Item D.1 of the IST working meeting held August 26 and 27, 1987. The full-stroke capability of these valves must be verified by some positive means such as valve disassembly, inspection and manual exercising.

4. Relief Request RR-IWV-4 does not provide sufficient detail in the basis for relief. The basis for relief should explain why flow cannot be established through valves 2-CS-14A and 14B into the RCS during power operation and why containment spray flow cannot be established into the containment. Also, how is it verified that valves 2-CS-14A and 14B are full-stroke exercised during testing at refueling outages?
5. Relief Request RR-IWV-5 identifies a sample disassembly and inspection interval of one valve every 40 months for valves 2-CS-15A and 15B. The NRC staff position is that when valve disassembly is used to verify the full-stroke capability of check valves, at least one valve from each group of identical valves in similar applications should be disassembled, inspected, and manually exercised each refueling outage. This was left open for the licensee to resolve as discussed in Item D.3 of the IST working meeting held August 26 and 27, 1987.
6. Relief Request RR-IWV-8 identifies a sample disassembly and inspection interval of one valve every 40 months for valves 2-SI-215, 225, 235, and 245. The NRC staff position is that when valve disassembly is used to verify the full-stroke capability of check valves, at least one valve from each group of identical valves in similar applications should be disassembled, inspected, and manually exercised each refueling outage. These valves were discussed in Item E.1 of the IST working meeting held August 26 and 27, 1987.

7. Relief Request RR-IWV-9 identifies a sample disassembly and inspection interval of one valve every 40 months for valves 2SI-217, 227, 237, and 247. The NRC staff position is that when valve disassembly is used to verify the full-stroke capability of check valves, at least one valve from each group of identical valves in similar applications should be disassembled, inspected, and manually exercised each refueling outage. These valves were discussed in Item E.2 of the IST working meeting held August 26 and 27, 1987.
8. Relief Request RR-IWV-15 states that the operators for valves 2-FW-12A and 12B can be exercised without an auxiliary feed system flow, therefore, the justification provided for not exercising these check valves with flow does not apply to the air operators used to facilitate valve operation. Do these power operators perform any safety function? If so, these power operators should be exercised, have their stroke times measured, and be fail-safe tested quarterly during power operations. These valves were discussed in Item F.1 of the IST working meeting held August 26 and 27, 1987.
9. Relief Request RR-IWV-16 states that valves 2-RB-30.1A, 30.1B, 37.2A, and 37.2B will be full-stroke exercised on cold shutdown when reactor coolant pumps are not running. Will the reactor coolant pumps be stopped every cold shutdown to facilitate testing of these valves? The basis for relief in RR-IWV-16 does not identify the negative consequences of interrupting cooling flow to the cooled components, provide this information.
10. Relief request RR-IWV-20 incorrectly categorizes valve 2-CH-431 as Category B and indicates that it will be fail-safe tested and have its stroke time measured. 2-CH-431 appears to be a simple check valve which should be categorized C and tested to the requirements of IWV-3520. This valve was discussed in Item H.2 of the IST working meeting held August 26 and 27, 1987.

11. Relief Request RR-IWV-23 states that valves 2-CH-198, 505, and 506 will be tested during cold shutdowns when reactor coolant pumps are secured. Will the reactor coolant pumps be stopped every cold shutdown to facilitate testing of these valves?
12. Relief Requests RR-IWV-10 and 25 state that valves 2-SI-652 and 651 respectively, will be tested during cold shutdowns when reactor coolant system pressure is less than 300 psig. Will the reactor coolant system pressure be reduced below 300 psig during every cold shutdown to facilitate testing of these valves?
13. Relief Request RR-IWV-26 is a new relief request that has not been previously reviewed. This relief request does not provide sufficient information for a satisfactory evaluation. Are penetration leak rates measured for any valves that have provisions for individual valve leak rate measurements? If so, these valves should be individually leak rate tested as required. Identify the groups of valves that are leak rate tested together.
14. Provide a more detailed technical basis for not testing valves 2-MS-190A and 190B quarterly during power operation. Relief Request RR-IWV-32 does not provide an adequate basis for not closing the manual isolation valves to allow performance of this testing. This was left open for the licensee to resolve as discussed in Item C.3 of the IST working meeting held August 26 and 27, 1987.
15. The Testing Alternatives (QCS and FTCS) are not shown on the valve listing table for valves 2-MS-190A and 190B.
16. Does valve 2-RB-13.1A receive a remote position indication test? If so, this should be indicated on the valve listing table.
17. Reactor vessel and pressurizer vent valves 2-RC-414, 415, 416, 417, 422, 423, 424, and 425 should be listed as valve type GL (globe) instead of relief valves? Relief request RR-IWV-21 does not list valve 2-RC-425. Correct these program deficiencies.

18. Does the alternate testing proposed for the air supply check valves to the safety-related instrument air accumulators satisfy all of the safety functions identified in the FSAR for the valves served by these accumulators? If not, propose alternate testing for these valves that verifies their ability to perform their safety function. These valves were discussed in Item IV.1 of the IST working meeting held August 26 and 27, 1987.