

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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April 13, 1993

Docket No. 50-423
B14429

Re: 10CFR50.55a(g)

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Request for Relief from Performing Inservice Test in
Accordance with ASME Code Section XI

Paragraph 50.55a(g) of 10CFR Part 50 requires that certain ASME Code Class 1, 2, and 3 pumps and valves be designed to enable inservice testing and that testing be performed to assess operational readiness in accordance with the Section XI requirements of the ASME Boiler and Pressure Vessel Code. The intent of testing is to detect degradation affecting operation, assess operational readiness, and ensure adequate margins are maintained.

By letter dated January 15, 1988,⁽¹⁾ the NRC approved the Millstone Unit No. 3 program for inservice testing (IST) of pumps and valves. This IST Program covers the first ten-year inspection interval starting April 26, 1986.

In Generic Letter 89-04, dated April 3, 1989,⁽²⁾ the NRC Staff stated that: "If the licensee believes that conformance with certain code requirements is impractical, that conformance to the code would cause unreasonable hardship without a compensating increase in safety or that a proposed alternative proves an acceptable level of quality and safety, 10CFR50.55a allows the licensee to request relief from the code by notifying the Commission and submitting information to support this determination."

Pursuant to 10CFR50.55a(g)(5)(iii), Northeast Nuclear Energy Company (NNECO) hereby requests relief from performance of the biennial position indication test of certain valves included in the Millstone Unit No. 3 IST Program as specified in ASME Code Section XI.

(1) J. F. Stolz letter to E. J. Mroczka, "Millstone 3 Inservice Testing (IST) Program for Pumps and Valves (TAC No. 65326)," dated January 15, 1988.

(2) S. A. Varga letter to All Holders of Light Water Reactor Operating Licenses and Construction Permits, "Guidance on Developing Acceptable Inservice Testing Programs (Generic Letter 89-04)," dated April 3, 1989.

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Relief Request CSR-32 seeks relief from performing the required biennial position indication tests for certain valves. An alternative is proposed which provides an acceptable level of testing to assess operational readiness in accordance with ASME Code Section XI. Attachment 1 provides the subject relief request and supporting basis. Relief requests, referenced in Relief Request CSR-32, are approved⁽³⁾ by the NRC and are included as Attachment 2 to this submittal for your information. In addition, the following paragraphs provide a detailed technical justification for the one-time extension of the biennial position indication testing of certain valves until September 30, 1993.

Technical Specifications Section 4.05 requires that an IST Program be implemented in accordance with ASME Section XI of the ASME Boiler and Pressure Vessel Code. ASME Code Section XI requires that each safety-related valve that is provided with remote position indication shall be verified at least once every two years. Valves that are inaccessible during normal operations are scheduled to be tested during cold shutdowns or refueling outages more frequently than two years. Performance of the position indication test requires that the valves be exercised (change position). However, scheduling during cold shutdowns does not require that all valves be completed prior to returning to power. Routinely, position indication testing is scheduled for total completion on a refueling outage basis.

The last refueling outage started in February 1991 and the position indication testing commenced on February 4, 1991. As a result of an unusually long maintenance outage (service water system work and erosion/corrosion work) during 1991 and two limited outages in 1992, NNECO has rescheduled the start of the Millstone Unit No. 3 refueling outage from November 1992 to July 31, 1993. The position indication tests (including a 25 percent allowance per Technical Specification 4.0.2) are due ranging from August 4, 1993, to September 24, 1993. To capture an unanticipated event that may further change the actual start date of the 1993 refueling outage, September 30, 1993, was selected as a completion date of all position indication tests. Specifically, the proposed relief request (CSR-32) will defer the position indication testing until the 1993 refueling outage, but not beyond September 30, 1993. It is noted that this relief request represents the second group of surveillances that require an extension, as noted in our letter dated February 26, 1993.

The Millstone Unit No. 3 Final Safety Analysis Report states that the mispositioning of a motor-operated valve, due to a malfunction in the control circuitry in conjunction with an accident, has been previously analyzed and found to be a very low probability event. In addition, power lockouts are provided in the control room for each valve to limit operator action due to apparent misposition.

(3) J. F. Stolz letter to E. J. Mroczka, "Millstone 3 Inservice Testing (IST) Program for Pumps and Valves (TAC No. 65326)," dated January 15, 1988.

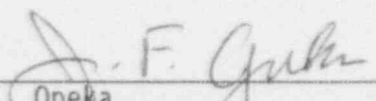
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Lack of remote position indications does not impact the ability of the safety system to perform its intended function. In addition, exercising of the valves associated with the approved relief requests⁽⁴⁾ (CSR 3, 4, 11, 12, 13, 24, 26, 27, 28, and 29, and R-14 and R-17) is impractical during power operation. Two valves (3CHS-V700 and 3CHS-V705), identified in Relief Request CSR-32, require observation of flow or other positive means to verify actual valve position. For these valves, the system cannot pass flow or isolate flow during normal plant operation. The remaining ten valves included in Relief Request CSR-32 are located inside containment. The position indication test of these valves requires local stem observation which should not be performed during power operation due to ALARA and personnel safety concerns.

Based on the above, the proposed one-time extension (Relief Request CSR-32) would not result in any undue risk to the health and safety of the public. NNECO believes that the information provided here is sufficient to secure NRC Staff approval of the relief request and NNECO hereby requests the NRC Staff to approve this relief request prior to August 4, 1993. We will, of course, promptly provide any additional information the Staff may need to respond to this request.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
Executive Vice President

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2,
and 3

(4) Ibid

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Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Relief Request. CSR-32

April 1993

RELIEF REQUEST: CSR-32

VALVES: See attached list

CATEGORY: See attached list

CODE CLASS: See attached list

FUNCTION: See attached list

TEST REQUIREMENT: Biennial Position Indication Test, IWV 3300

BASIS FOR RELIEF: Stroke testing of the valves with associated existing Relief Requests (i.e., CSRs 3, 4, 11, 12, 13, 24, 26, 27, 28, and 29, and R-14, R-17) during power operation is impossible. Position indication test (PIT) of valves (identified by #) requires flow observation because the valve stems are not visible. Flow observation requires that the reactor coolant pump seal flow be stopped, which is not practical. Justification is provided in Relief Request, R-17. A PIT of valves (identified by *) requires local stem observation inside containment which should not be performed during power operation due to ALARA and safety concerns.

ALTERNATIVE TESTING: These valves will be position indication tested during cold shutdown or refueling (when plant conditions permit), whichever is earlier, but no later than September 30, 1993. This alternative test applies to Cycle 4 only.

CSR-32 Valves

Valve		Category	Class	Function	R/R
3CHS-V393	3CHS*MV8109A	A	2	A RCP Seal Injection Isolation	17
3CHS-V433	3CHS*MV8109B	A	2	B RCP Seal Injection Isolation	17
3CHS-V466	3CHS*MV8109C	A	2	C RCP Seal Injection Isolation	17
3CHS-V500	3CHS*MV8109D	A	2	D RCP Seal Injection Isolation	17
3CHS-V532	3CHS*MV8112	A	2	RCP Seal Return Containment Isolation	17
3CHS-V533	3CHS*MV8100	A	2	RCP Seal Return Containment Isolation	17
3CHS-V700	3CHS*HCV190A	B	2	B Train Alternate Charging Control	#
3CHS-V705	3CHS*HCV190B	B	2	A Train Alternate Charging Control	#
3RCS-V167	3RCS*MV8000A	B	1	A Train PORV Block	*
3RCS-V168	3RCS*PCV455A	B	1	A Train PORV	3
3RCS-V169	3RCS*MV8000B	B	1	B Train PORV Block	*
3RCS-V170	3RCS*PCV456	B	1	B Train PORV	3
3RCS-V174	3RCS*AV8145	B	1	Alternate Pressurizer Spray Isolation	4
3RHS-V004	3RHS*MV8716A	B	2	A Train RHS Pump Discharge Isolation	26
3RHS-V008	3RHS*MV8716B	B	2	B Train RHS Pump Discharge Isolation	26
3RHS-V994	3RHS*MV8702A	A	2	B RHR Pump Suction from RCS	11
3RHS-V995	3RHS*MV8701B	A	2	A RHR Pump Suction from RCS	11
3RHS-V996	3RHS*MV8702B	A	1	B RHR Pump Suction from RCS	11
3RHS-V997	3RHS*MV8701A	A	1	A RHR Pump Suction from RCS	11
3RHS-V998	3RHS*MV8702C	A	1	B RHR Pump Suction from RCS	11
3RHS-V999	3RHS*MV8701C	A	1	A RHR Pump Suction from RCS	11
3SIH-V003	3SIH*MV8801A	A	2	A Train SIH Injection from CHS	12
3SIH-V004	3SIH*MV8801B	A	2	B Train SIH Injection from CHS	12
3SIH-V010	3SIH*MV8806	B	2	SIH Common Suction from RWST	13
3SIH-V020	3SIH*MV8835	A	2	SIH Common Injection to RCS CL	27
3SIH-V065	3SIH*CV8843	A	2	CHS Check Valve Test Connection	*
3SIH-V093	3SIH*MV8802A	A	2	A Train SIH Injection to RCS HL	*
3SIH-V100	3SIH*MV8802B	A	2	B Train SIH Injection to RCS HL	*
3SIH-V102	3SIH*CV8881	A	2	SIH Check Valve Test Connection	*
3SIH-V103	3SIH*CV8824	A	2	SIH Check Valve Test Connection	*
3SIH-V104	3SIH*CV8823	A	2	SIH Check Valve Test Connection	*
3SIH-V962	3SIH*MV8813	B	2	SIH Pump Common Recirc	29
3SIH-V988	3SIH*CV8871	A	2	SIH Check Valve Test CIV	*
3SIL-V11	3SIL*MV8809B	A	2	B Train Normal LPSI Injection Isolation	24
3SWP-V25	3SWP*MV054A	B	3	A RSS HX Isolation	14
3SWP-V27	3SWP*MV054C	B	3	C RSS HX Isolation	14
3SWP-V33	3SWP*MV050A	B	3	A Train SWP Supply to CCP HX	28
3SWP-V58	3SWP*MV054B	B	3	B RSS HX Isolation	14
3SWP-V60	3SWP*MV054D	B	3	D RSS HX Isolation	14
3SWP-V65	3SWP*MV050B	B	3	B Train SWP Supply to CCP HX	28
3VRS-V2	3VRS*CTV20	A	2	CDTT Vent to Radioactive Gaseous Waste	*

Notes:

Requires RCP Seals isolated for flow observation

* Requires Contmt entry for local observation

Attachment 2

Millstone Nuclear Power Station, Unit No. 3

Previously Approved Relief Requests — CSR-3, CSR-4, CSR-11, CSR-12,
CSR-13, CSR-24, CSR-26, CSR-27, CSR-28, CSR-29
and R-14 and R-17

April 1993

Relief Request: CSR-3

Valves: 3RCS*V168, V170

Category: B

Code Class: 1

Function: Provide overpressurization protection for the Reactor Coolant System at reduced temperatures and pressures.

Test Requirements: Exercise (full stroke) quarterly.

Basis for Relief: Full stroke exercise testing of these valves during power operation is not practical, since they are not required for overpressure protection at power and have shown a high probability of sticking open. The valves are relied on to protect the Reactor Coolant System from low temperature overpressurization.

Alternate Testing: These valves will be full stroke tested during cold shutdowns.

AUG 11 1993

Relief Request: CSR-4

Valves: 3RCS*V174

Category: B

Code Class: 1

Function: Auxiliary Spray isolation valve

Test Requirements: Exercise (full stroke) quarterly.

Basis for Relief: This valve isolates the pressurizer auxiliary header from the normal charging header. Stroke testing of this valve during power operation would result in a pressurizer pressure transient and thermally shock the pressurizer spray nozzle.

Alternate Testing: This valve will be full stroke tested during cold shutdowns.

AUG 11 1988

Relief Request: CSR-11

Valves: 3RHS*V994, V995, V996, V997, V998, V999

Category: A

Code Class: 1

Function: Pressure isolation

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: Stroke testing of these valves at power is not possible. V994, V995, V996 and V997 are interlocked to prevent operation (opening) when the Reactor Coolant System pressure is above 375 psig. Full stroke exercising V998, V999 poses unnecessary exposure to a low pressure system LOCA. These valves are RCS pressure isolation valves required to be closed per Tech. Spec. 4.4.6.2 and are leak tested within 24 hours after operation. In order to leak test these valves, a containment entry (personnel safety risk, the containment at MP3 is subatmospheric to 9 psia) is required, any leakage through these valves flashes to steam and must be vented to containment atmosphere (hydrogen and radioactive gaseous problem).

Alternate Testing: These valves will be full stroke tested during cold shutdowns.

AUG 11 1988

Relief Request: CSR-12

Valves: 3SIH*V3, V4

Category: A

Code Class: 2

Function: Provide an injection path for High Pressure Safety
Injection and Containment Isolation.

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: Stroke testing these valves during power operation
would require disruption of normal charging flow and
the injection of nonpreheated water into the Reactor
Coolant System resulting in thermal shock to the
inlet nozzles.

Alternate Testing: These valves will be full stroke tested during cold
shutdowns.

AUG 11 1988

Relief Request: CSR-13

Valves: 3SIH*V10

Category: B

Code Class: 2

Function: Realignment from injection to recirculation mode

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: This valve is in the position required during the initial phases of an accident requiring safety injection. The valve does not receive a safety signal, since realignment of the valve to the recirculation mode is accomplished by manual repositioning of the valve. Testing of this valve during power operation would place it in a nonconservative position temporarily disabling both safety injection trains and possibly causing damage to both pumps if an SIS were to occur. If required, the valve can be repositioned locally so that deferring the testing of this valve to cold shutdown would not compromise plant safety.

Alternate Testing: This valve will be stroke tested during cold shutdowns.

AUG 11 1988

Relief Request: CSR-24

Valves: 3SIL*V5, V11

Category: A

Code Class: 2

Function: RHR Cold Leg Containment Isolation Valve

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: These valves are required to be open with power removed from the operators during modes 1, 2 and 3 per Tech. Spec. 3/4.5.2 to ensure operability of this ECCS subsystem.

Alternate Testing: These valves will be full stroke tested during cold shutdown.

AUG 11 1988

Relief Request: CSR-26

Valves: 3RHS*V4, V8

Category: B

Code Class: 2

Function: RHR Discharge Cross Connects

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: Full stroke exercising these valves closed during power operation would render the RHR system inoperable by isolating two of the four cold leg injection paths to the RCS from RHR.

Alternate Testing: These valves will be full stroked tested during cold shutdown.

AUG 11 1988

Relief Request: CSR-27

Valves: 3SIH*V20

Category: A

Code Class: 2

Function: HPSI to Cold Leg Master Isol

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: This valve is required to be open and power removed from the operators during modes 1, 2 and 3 per Tech. Spec. 3/4.5.2 to ensure operability of this ECCS subsystem.

Alternate Testing: These valves will be full stroke tested closed during cold shutdown.

AUG 11 1988

Relief Request: CSR-28

Valves: 3SWP*V33, V65

Category: B

Code Class: 3

Function: Train A & B Service Water Header to RPCCW Heat
Exchanger Inlet Manifold

Test Requirements: Exercise (full stroke) quarterly

Basis for Relief: Full stroke exercising either of these valves closed
quarterly would isolate component cooling water heat
exchanger resulting in equipment damage to both
safety related and non-safety related trains.

Alternate Testing: These valves will be full stroke tested during cold
shutdown.

AUG 11 1988

Relief Request: CSR-29

Valves: 3SIH*V962

Category: B

Code Class: 2

Function: HPSI Master Mini Flow Isolation

Test Requirements: Full stroke exercise closed quarterly

Basis for Relief: Full stroke exercising of SIH*V962 closed during power operation would render both trains of HPSI unavailable to perform their safety function. Failure of this valve closed during power operations, if an SI signal occurred and the RCS did not depressurize to the Safety Injection pump discharge head, it would dead head the pumps.

Alternate Testing: The valve will be full stroke tested closed during cold shutdowns.

AUG 11 1988

Relief Request: R-14

Valves: 3SWP*V25, V27, V58, V60

Category: B

Code Class: 3

Function: Service water supply valves to the recirculation
spray system coolers.

Test Requirements: Exercise (full stroke) quarterly.

Basis for Relief: These valves are interlocked so that they cannot be opened unless valves 3SWP*V33 and V65 are closed shutting off service water supply to the component cooling water coolers. Component cooling water (CCP) cannot be secured during power operation. A failure of CCP during power operation would inop. 1 Tech. Spec. required train of CCP and related safety equipment. Component cooling water cannot be secured during cold shutdown. This would prevent proper cooling of safety related and non-safety related equipment and cause a SWP pump runout.

Alternate Testing: Full stroke during refueling outages.

AUG 11 1988

Relief Request: R-17

Valves: 3CHS*V393, V433, V466, V500, V532, V533

Category: A

Code Class: 2

Function: Seal Water Supply and Return Containment Isolation Valve

Test Requirements Exercise closed (full stroke) quarterly.

Basis for Relief: Plant operating procedures (per Westinghouse Tech. Manual) require #1 seal return flow to be maintained whenever (RCS) pressure exceeds 100 psig. Isolating these valves during plant operation, or cold shutdowns in which the RCS is pressurized could damage the RCP seals.

Alternate Testing: These valves will be full stroke exercised during refueling when the RCS is depressurized to less than 100 psig.

NOTE: Full-stroke exercising of the seal return valves will be performed during cold shutdown when the RCS is depressurized (i.e., for cold shutdowns which depressurize the RCS to less than 100 psig).

NOTE: Full stroke exercising of the seal supply valves will be done on cold shutdowns in which the RCS is drained down to a level which uncovers the RCP seals (i.e., refueling or cold shutdowns which drain the RCS).

AUG 11 1988