NRC FORM 366 (4-95)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS & INFORMATION COLLECTION REQUEST BD.0 HRS. REPORTE

EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/charactersfor each block)

FACILITY NAME (1)

Millstone Nuclear Power Station Unit 2

LEARNED ARE INCORPORATED INTO THE BACK TO INDUSTRY FORWARD CO ESTIMATE TO THE INFORMATION AND REC 6 F33I, U.S. NUCLEAR REGULATORY C 20555-0001, AND TO THE PAPERWORK RI OFFICE OF MANAGEMENT AND BUDGET, W	IMMENTS REGARDING ORDS MANAGEMENT BI OMMISSION, WASHING
 DOCKET NUMBER (2)	PAGE (3)
05000336	1 OF 3

TITLE (4)

Insufficient verification of boron injection flowpaths

EVENT DAT	E (5)		LER NUMBER (REPO	E(7)	OTHER FACILITIES INVOLVED (8)						
MONTH DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME		DOCKET NUMBER		
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OPERATING		THIS R	PORT IS SUBMIT	TED PURSU	ANT TO TH	E REQU	IREMEN	TSOF	10	CFR 5: (Check one	or mo	re) (11)
MODE (9)	N	20.2201(b)			20.2203(a)(2)(v)				X	50.73(a)(2)(i)	T	50.73(a)(2)(viii)
POWER		20.	2203(a)(1)		20.2203(a)(3)(i)					50.73(a)(2)(ii)		50.73(a)(2)(x)
LEVEL (10)	000	20.	2203(a)(2)(i)		20.2203(a)(3)(ii)					50.73(a)(2)(iii)	73.71	73.71
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		20.	2203(a)(2)(iii)		50.36(c)(1)			50.73(a)(2)(v)		50.73(a)(2)(v)	Consituin Abravan bala	
		20.	2203(a)(2)(iv)		50.36(c)(2)			50.73(a)(2)(vii)		in NRC Form 366A		

NAME

R. G. Joshi, MP2 Regulatory Compliance Manager

TELEPHONE NUMBER (Include Area Code)

(860) 440-2080

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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On April 23, 1997 it was discovered that Technical Specification Surveillance Requirement 4.1.2.1.a was not being performed on the B High Pressure Safety Injection Pump suction and discharge power operated valves. This Technical Specification surveillance requires the valves to be operated to ensure that a viable boron injection flow path is available. Upon further review it was discovered that Technical Specification Surveillance Requirements 4.1.2.1.a and 4.1.2.2.c were also not being performed for another boric acid flow path. The power operated valves on the discharge line of the charging pumps also were not being tested.

The cause of this event was failure to properly incorporate Technical Specification surveillance requirements into plant surveillance procedures.

Corrective actions for this deficiency include revising the appropriate surveillance procedures to ensure that the power operated valves for all credited boration flow paths are properly tested. An ongoing review of Technical Specification surveillance procedures to ensure compliance with Technical Specifications surveillance requirements shall be completed.

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NRC FORM 366A

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET		LER NUMBER	(6)	PAGE (3)	
Millstone Nuclear Power Station Unit 2	05000336	YEAR SEQUENTIAL REVISION NUMBER NUMBER			2 OF 3	
		97	- 020	02		

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On April 23, 1997 it was discovered that Technical Specification Surveillance Requirement (SR) 4.1.2.1.a was not being performed on the B High Pressure Safety Injection (HPSI) [BQ] Pump suction and discharge power operated valves [ISV]. This Technical Specification surveillance requires the valves to be operated to ensure that a viable boron injection flow path is available. Upon further review it was discovered that Technical Specification SR 4.1.2.1.a and 4.1.2.2.c were also not being performed for another boric acid flow path. The power operated valves on the discharge line of the charging pumps [CB] were also not being tested. At the time of discovery of this event, the unit was defueled.

Technical Specification Surveillance Requirement 4.1.2.1 a requires the boron injection flow path be demonstrated operable at least once per 7 days by exercising all testable power operated valves in the flow path required for boron injection through at least one complete cycle. The associated surveillance procedures for this requirement tests the power operated valves in the A and C HPSI Pump flowpaths, but did not test the power operated valves in the B HPSI pump and charging pump flowpaths. A review of operational logs for the period January 1995 to April 1997 identified that the B HPSI pump flowpath is believed to have been the credited flowpath at some point in time between April 1995 and June 1995, and is also believed to have been the credited flowpath at some time prior to the beginning of the review period (January 1995). Additionally, the charging pumps are believed to have been the credited flowpath on numerous occasions. A charging header stop valve and the charging loop isolation valves, located between the charging pumps and the Reactor Coolant System (RCS) [AB], were not tested in accordance with Technical Specifications 4.1.2.1 and 4.1.2.2. Therefore, Technical Specification 3.1.2.1 and 3.1.2.2 requirements to maintain at least one boron injection flow path operable were not satisfied.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications.

II. Cause of Event

The cause of this event was failure to properly incorporate Technical Specification surveillance requirements into plant surveillance procedures.

III. Analysis of Event

The refueling water storage tank (RV/ST) supplies borated water to the RCS to provide shutdown margin for the reactor core. The purpose of boron injection is to reduce shutdown risk. One of the boron injection flow path options is a HPSI pump and its associated valves and piping. Three HPSI Pumps are provided, with the A and C Pumps supplying Facility 1 and Facility 2 respectively. The B HPSI pump can be used as the credited flow path for either facility, by opening the B HPSI Pump suction and discharge cross-tie valves. It is used when one of the other HPSI Pumps is out of service.

The Charging System can also be used as a credited flowpath for boron injection. The charging pumps supply borated water to the RCS from the boric acid storage tank or from the RWST.

The suction and discharge valves for the B HPSI Pump and the associated flow path are tested on a quarterly basis, ensuring their operability. The discharge valves for the charging pumps are also tested on a quarterly basis, ensuring their operability. Therefore, this event was not safety significant.

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NRC FORM 366A		U.S. NUCLEAR REGULATORY COMMISSION
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TEXT CONTINUATION

* FACILITY NAME (1)	DOCKET	CKET LER NUMBER (6)			PAGE (3)	
Millstone Nuclear Power Station Unit 2	05000336	YEAR SEQUENTIAL REVISION NUMBER			3 OF 3	
		97	- 020	02		

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

IV. Corrective Action

As a result of this event, the following actions have been, or will be performed.

- 1. The appropriate surveillance procedure associated with Technical Specification 4.1.2.1 shall be revised prior to entry into Mode 6 from the current outage to ensure that the power operated valves for all credited flowpaths are properly tested.
- Technical Specification surveillance procedures will be reviewed to ensure compliance with Technical Specifications surveillance requirements as part of Millstone Unit 2 Operational Readiness Plan (Reference NOV 336/96-08-07, NNECO Commitment No. B16076-2).
- The appropriate surveillance procedures associated with Technical Specification 4.1.2.2 will be revised, prior to entry into Mode 4 from the current outage, to ensure proper testing of the power operated valves for all credited boration flowpaths.

V. Additional Information

Similar Events

Previous LERs that involve deficient surveillance procedures include:

LER 96-023:	Discrepancies Found in Various Technical Specification Required Valve Lineups
LER 96-024.	Inadequate Surveillances for Reactor Protection System and Engineered Safety Actuation System Response Time Testing
1 50 06 005	
LER 96-025	Enclosure Building Filtration Actuation Signal/Auxiliary Exhaust Actuation Signal Interlock Not Tested Periodically
LER 96-026:	Incomplete Technical Specification Required Surveillance - Valve Lineups Inside Containment
LER 96-035:	Failure to Perform Periodic Surveillance Testing for Interlock Function Associated with the Main Steam Isolation System Function of the Engineered Safeguards Actuation System
LER 96-037:	Inadequate Surveillance Procedure for Verifying Average Water Temperature at the Unit 2 Intake Structure
LER 96-038:	Inadequate Surveillance Procedures Used to Verify Emergency Diesel Generator Operability
LER 96-039:	Failure to Perform Periodic Surveillance Testing for Containment Purge System Containment Isolation Valves in Accordance with Technical Specification 4.9.10
LER 96-040:	Inadequate Surveillance Procedure for Verifying Motor Circuit Breaker Position in Accordance with Technical Specification Requirements 4.1.2.3.2, 4.1.2.3.3, and 4.4.1.4
LER 97-003:	Surveillance Procedure SP2618C Fails to Meet Technical Requirements Manual Surveillance Requirements
LER 97-007:	Inadequate Surveillance Procedure for Verifying Operability of Reactor Coolant System Vents
LER 97-016:	Technical Specification 4.0.4 Incorrectly Applied To Surveillance Requirements For The TDAFW Pump

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].