

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY
INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS
LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED
BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE
TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (IT-6 F33),
U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001,
AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF
MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Millstone Nuclear Power Station Unit 1

DOCKET NUMBER (2)

05000245

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TITLE (4)

GL 96-01 Review Discovers Inadequate Surveillance Testing In Accordance with Technical Specifications

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	13	97	97	029	00	06	12	97	FACILITY NAME	DOCKET NUMBER
OPERATING			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			<input checked="" type="checkbox"/> 50.73(a)(2)(i)	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)
			20.2203(a)(2)(ii)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(iii)			20.2203(a)(4)			50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED	MONTH	DAY	YEAR

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

On May 13, 1997, at 1030 hours, with the plant in Cold Shutdown, while performing a procedure review for Generic Letter (GL) 96-01 it was discovered that the Instrument Functional Test for the Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels did not encompass the entire instrument channel. The Standby Gas Treatment system (SGTS) initiation relays, which drop out on a downscale trip of the radiation monitors, were not tested monthly per the Millstone Unit 1 Technical Specifications (TS). The downscale trip functions are part of the radiation monitor channels, which include these initiation relays. These relays are tested every refueling and not monthly. This condition is being reported pursuant to 10CFR50.73(a)(2)(i)(B) as a condition prohibited by TS.

The surveillance procedure was revised to ensure that the instrumentation channel was tested in accordance with the TS requirements. Subsequent performance of the surveillance procedure demonstrated satisfactory channel response, therefore no safety consequences or safety implications resulted from the event. Corrective action is to complete instrument control surveillance procedure reviews to identify any additional TS surveillances not properly performed.

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

I. Description of Event

On May 13, 1997, at 1030 hours, with the plant in Cold Shutdown, while performing a procedure review for GL 96-01 it was discovered that the Instrument Functional Test for the Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels did not encompass the entire instrument channel. The SGTS initiation relays, which drop out on a downscale trip of the radiation monitors, were not tested monthly per the TS. The downscale functions of the Reactor Building Ventilation and Refuel Floor High Radiation Monitors are part of the instrument channels as described by TS, and include the SGTS initiation relays. Therefore the Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels were not fully tested in accordance with TS.

The monthly surveillance test requirements were applicable at all times these monitors were required to be operable. Since the required surveillance testing was not fully performed, this event is considered to be a missed surveillance, and this occurrence is being reported pursuant to 10CFR50.73(a)(2)(i)(B), as a condition prohibited by TS. The Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels were declared inoperable. The surveillance procedure was revised to meet the TS requirements for an instrument functional test and subsequent performance demonstrated satisfactory channel response. The Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels were then declared operable.

There were no automatic or manual initiated safety system responses.

II. Cause of Event

Programmatic deficiency in that sufficient guidance did not exist to specifically define what constitutes an adequate instrument functional test.

Contributing causes to this event are the failure to identify this discrepancy in previous TS compliance reviews, and the failure to implement compliance with TS.

III. Analysis of Event

The downscale trip functions of the Reactor Building Ventilation and Refuel Floor High Radiation Monitors are part of the instrument channels as described by TS. The basis for TS 3/4.2 discusses both the high radiation and the downscale trip actuations of the SGTS Initiation and Reactor Building Ventilation Isolation logics. Therefore, the downscale trip actuations of the Reactor Building Ventilation and Refuel Floor High Radiation Monitors must be functionally tested on a monthly basis to meet the surveillance requirements of TS Table 4.2.1.

TS 1.0.0.1, Protective Instrumentation Definitions, defines an "Instrument Channel" to be an arrangement of a sensor and auxiliary equipment required to generate and transmit to a trip system a single trip signal related to the plant parameter monitored by the instrument channel. The downscale trip actuation portions of the Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels were not fully tested in accordance with TS Table 4.2.1, since the monthly functional tests of the instrument channels have not included the SGTS initiation relay coils. The SGTS initiation relay coils are part of the instrument channels since they are auxiliary equipment required to transmit to a trip system a single trip signal. The SGTS initiation relays associated with the downscale trip actuation portions of the Reactor Building Ventilation and Refuel Floor High Radiation Monitor channels have been tested each refueling outage, but have not been tested monthly to meet the requirements of TS Table 4.2.1.

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Subsequent performance of the surveillance procedure demonstrated satisfactory channel response, therefore no safety consequences or safety implications resulted from the event. The safety related functional requirement of the Reactor Building Ventilation and Refuel Floor Radiation Monitors is to monitor the reactor building ventilation exhaust plenum and the refueling floor area to provide prompt indication of a gross release of radioactive material. If setpoints are exceeded, signals will isolate the normal reactor building and steam tunnel ventilation systems and initiate operation of the SGTS. The only TS required trip values for these radiation monitors are the high radiation settings specified in TS 3.2.E.3. A failure of the downscale trip actuation function of these radiation monitors would not, in itself, degrade the principle safety barrier (secondary containment) of the plant provided the radiation monitors remain capable of responding to a valid high radiation condition. Since the monitors responded to a known radiation field and the high radiation trip function performed satisfactorily as demonstrated during surveillance testing, any one monitor would have isolated reactor building and steam tunnel ventilation and started SGTS in the event of a gross release of radioactivity. Also, since the downscale annunciators were tested on a monthly basis, it is concluded that appropriate operator action would have been taken in the unlikely event that the SGTS initiation relays failed to initiate SGTS on a downscale trip as required. It is noted that testing has demonstrated that the relays trip as required.

IV. Corrective Action

Northeast Nuclear Energy Company (NNECO) has developed the necessary procedures to fully test the downscale trip actuation function of the Reactor Building Ventilation and Refuel Floor Radiation Monitors on a monthly basis, and has performed the appropriate surveillances satisfactorily to meet the TS as they pertain to Table 4.2.1.

NNECO will develop and provide reviewers with criteria for evaluating the adequacy of the surveillance procedures for the performance of TS required instrument functional testing prior to startup for operating Cycle 16.

NNECO will be performing a review of all instrumentation and control related surveillance procedures to verify compliance with Millstone Unit 1 TS surveillance requirements prior to startup for operating Cycle 16.

V. Additional InformationSimilar Events

- LER 97-020-00 Liquid Radwaste Effluent Monitor Functional Test Surveillance Not in Accordance with Technical Specifications
- LER 96-015-00 Recirculation Pump Flow Mismatch Surveillance Not Performed In Accordance With Technical Specifications
- LER 96-019-00 Sensor Calibration of SRM/IRM Nuclear Instrumentation not Performed as Required
- LER 96-043-00 Inadequate Instrument Calibrations Due to Failure to Verify Response Time
- LER 96-044-01 High Range Stack Noble Gas Monitor Inoperable Due to Inadequate Calibration

Manufacturer Data

Energy Industry Identification System (EIIIS) codes are identified as follows: BH, RLY, and IL.