NRC FORM 366
(7-77)

U.S NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

Update Report - Previous Report
Date 6/27/83

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	C T M N S 2 (2)	0 0 - 0 0 0 0 0 - 0 0 (3)	4	1 1 1 1 (4)		(5)
7 8	9 LICENSEE CODE 14	15 LICENSE NUMBER 25	26	LICENSE TYPE 30	57 CAT 58	

CON'T

0 1	REPORT SOURCE L (6)	0 5 0 0 0 3 3 6 (7)	0 5 2 3 8 3 (8)	0 6 0 1 8 4 (9)
7 8	60 61 DOCKET NUMBER 68	69 EVENT DATE 74	75 REPORT DATE 80	

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During main steam safety valve simmer testing, 11 of 16 valves had setpoint

0 3 drift outside the acceptance criteria. 9 valves had drifted below the

0 4 setpoint and 2 valves drifted above their setpoint. The plant operated in

0 5 accordance with technical specification action statement 3.7.1.1.A for 7

0 6 hours until mode 4 (hot shutdown) was achieved. Similar events : None

0 7

0 8 7 8 9 80

0 9	SYSTEM CODE C C (11)	CAUSE CODE X (12)	CAUSE SUBCODE Z (13)	COMPONENT CODE V A L V E X (14)	COMP. SUBCODE X (15)	VALVE SUBCODE B (16)
7 8	9 10	11	12	13 18	19	20

(17) LER RO REPORT NUMBER	EVENT YEAR 8 3	—	SEQUENTIAL REPORT NO. 0 2 1	/	OCCURRENCE CODE 0 3	REPORT TYPE X	—	REVISION NO. 1
	21 22	23	24 26	27	28 29	30	31	32

ACTION TAKEN E (18)	FUTURE ACTION Z (19)	EFFECT ON PLANT Z (20)	SHUTDOWN METHOD Z (21)	HOURS (22) 0 0 0 0	ATTACHMENT SUBMITTED Y (23)	NPRD-4 FORM SUB. Y (24)	PRIME COMP. SUPPLIER A (25)	COMPONENT MANUFACTURER D 2 4 3 (26)
33	34	35	36	37 40	41	42	43	44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Actual cause is unknown. Several causes were suggested as possible

1 1 contributors. 7 valves' setpoints were reset, 4 valves were sent out for

1 2 refurbishment and testing. Nothing unusual was detected during refurbishment

1 3 that could have contributed to the cause. In the future the test method will

1 4 be monitored for accuracy.

7 8 9 80

1 5	FACILITY STATUS (28)	% POWER 0 0 0 (29)	OTHER STATUS (30) NA	METHOD OF DISCOVERY (31)	DISCOVERY DESCRIPTION (32) Inservice Inspection
7 8	9	10 12	13 44	45 46	80

1 6	ACTIVITY RELEASED Z (33)	CONTENT OF RELEASE Z (34)	AMOUNT OF ACTIVITY (35) NA	LOCATION OF RELEASE (36) NA
7 8	9	10 11	44	45 80

1 7	PERSONNEL EXPOSURES NUMBER 0 0 0 (37)	TYPE (38)	DESCRIPTION (39) NA
7 8	9 11	12 13	80

1 H	PERSONNEL INJURIES NUMBER 0 0 0 (40)	DESCRIPTION (41) NA
7 8	9 11	12 80

1 9	LOSS OF OR DAMAGE TO FACILITY TYPE Z (42)	DESCRIPTION NA
7 8	9 10	80

2 0	PUBLICITY ISSUED N (44)	DESCRIPTION (45)
7 8	9 10	

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NRC USE ONLY

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NAME OF PREPARER Steve Stadnick PHONE 203-447-1791 X 4427

GPO 817-928

ATTACHMENT TO UPDATE LER 83-021-03X-1
NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR ENERGY COMPANY
FACILITY OPERATION LICENSEE NUMBER DPR-65
DOCKET NO. 336

EVENT DESCRIPTION

Just prior to shutdown for a refueling outage, the sixteen (16) main steam safety valves were being simmer tested for verification of pressure setpoint. Eleven (11) of the valves had setpoint drift outside their respective acceptance criteria. Nine (9) valves had drifted below their setpoint and two (2) valves had drifted above their specified set point. See Table 1 for actual setpoint values and acceptance criteria. The plant operated in accordance with technical specification action statement 3.7.1.1.a. for seven (7) hours until mode 4, hot shutdown, was achieved.

The probable consequences of this event would be insignificant. A review of the postulated increased radiological dose rate was performed for the Steam Generator Tube Rupture Event. See further information in cause and corrective action.

CAUSE AND CORRECTIVE ACTIONS

The cause of the setpoint drift is unknown. The valve vendor and an independent test laboratory were contacted. They suggested the following possible causes:

1. Incorrect ring position.
2. Seat leakage.
3. Variations in valve area ambient temperature.
4. Spring relaxation due to cyclic heating, fatigue.

Four (4) valves were sent to an independent laboratory for inspection and overhall. A representative of the valve manufacturer was present during this inspection. Although a disc was replaced in one valve and a disc guide in the second the inspection revealed no anomalies which could have accounted for the setpoint drift.

Since a cause of the setpoint drift has not been ascertained this situation will continue to be monitored during future testing. At the request of the independent laboratory during the next main steam safety valve test, the test method will be closely monitored to determine if accurate results are being obtained.

A technical review was performed to determine the consequences of the setpoint drift. The steam generator tube rupture event was reviewed and this review has concluded that earlier actuation of the main steam safeties would not necessarily release more steam to the atmosphere. Though the main steam safeties would lift earlier, the automatic dump valves (to the condenser) would also actuate and the integrated steam release would not be significantly larger than originally analyzed.

In addition, the 2 hour site boundary dose for thyroid originally performed for the steam generator tube rupture event calculated a dose of .24R. When this value is compared to the 300R allowable limit per 10CFR100 and the small change in integrated steam release is considered, the increased dose rate is insignificant.

ATTACHMENT TO UPDATE LER 83-021-03X-1

TABLE 1

Main Steam Safety Valve Pressure Setpoint

All Values Are PSIG

MILLSTONE VALVE NO.	SERIAL NO.	SETPOINT	AS FOUND SETPOINT	AS LEFT SETPOINT
2-MS-239	BN 4976	1035 ± 10	1028	1028
2-MS-240	BN 4972	1030 ± 10	1038	1038
2-MS-241	BN 4968	1010 ± 10	940	1009
2-MS-242	BN 4964	990 ± 10	954	995
2-MS-243	BN 4974	1035 ± 10	1010	1025
2-MS-244	BN 4970	1020 ± 10	1008	1019 *
2-MS-245	BN 4966	1000 ± 10	934	1008
2-MS-246	BN 4962	985 ± 10	990	990
2-MS-247	BN 4961	985 ± 10	961	991 *
2-MS-248	BN 4975	1035 ± 10	1066	1040
2-MS-249	BN 4965	1000 ± 10	948	991 *
2-MS-250	BN 4971	1030 ± 10	991	1029
2-MS-251	BN 4969	1020 ± 10	1010	1010
2-MS-252	BN 4967	1010 ± 10	1049	1016
2-MS-253	BN 4973	1035 ± 10	1037	1037
2-MS-254	BN 4963	990 ± 10	977	986 *

* Value sent out for refurbishment and final setpoint testing.

VALVE DATA

Manufacturer	Dresser; Alexandria, Louisiana
Valve Type	6-3707 RAX-RT-22-XLP8-N0015
Inlet Flange	6" ANSI 1500# R.F. Smooth
Outlet Flange	10" ANSI 150# R.F. Smooth
Design Pressure	1035PSIG
Design Temperature	550°F

ASME III Class 2, Nov. 68 Draft Edition, Summer 70 Addenda.

NORTHEAST UTILITIES

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

General Offices • Selden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 666-6911

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U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Reportable Occurrence RO 50-336/83-21/3X-1

Gentlemen:

This letter forwards the update Licensee Event Report 83-21/3X-1. This update report provides further information regarding the cause and corrective actions taken as a result of the Main Steam Safety Valve setpoint drift problem.

Yours truly,

NORTHEAST NUCLEAR ENERGY COMPANY

E. J. Mroczka
Station Superintendent
Millstone Nuclear Power Station

EJM/SS:ejl

Attachment: LER 50-336/83-21/3X-1

cc: Dr. T. E. Murley, Region I
Director, Office of Inspection and Enforcement Washington, D.C. (1)
Director, Office of Management Information and Program Control, Washington, D.C. (1)

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