

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Haddam Neck

DOCKET NUMBER (2)

0 5 0 0 0 2 1 3

PAGE (3)

1 OF 0 3

TITLE (4)

Setpoint Drift of Main Steam Safety Valves

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
0 1	0 4	8 6	8 6	0 0 2	0 0	0 2	0 3	8 6			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)									
2		20.402(b)		20.405(e)		50.73(a)(2)(iv)		73.71(b)			
POWER LEVEL (10)		20.405(a)(1)(i)		50.36(e)(1)		50.73(a)(2)(v)		73.71(c)			
0 0 0		20.405(a)(1)(ii)		50.36(e)(2)		50.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 308A)			
		20.405(a)(1)(iii)		50.73(a)(2)(iii)		50.73(a)(2)(viii)(A)					
		20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)					
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)

NAME Joseph P. Drago, Assistant Engineering Supervisor

TELEPHONE NUMBER

AREA CODE

2 0 3 2 1 6 7 - 1 2 5 1 5 6

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	S	B	R	V					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

0 3 1 5 8 6

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

A scheduled test of the main steam safety valve (MSSV) lift setpoints was performed on January 4, 1986. Evaluation of the data is continuing, however, preliminary indications are that six of the sixteen valves did not meet their setpoint tolerances. Four valves lifted below the setpoint pressure tolerance, (1 percent of setpoint), one valve lifted above the setpoint tolerance (1 percent of setpoint), and one valve failed to open within the test range (7 percent above setpoint).

This event is reportable under two criteria:

- 1) Due to the setpoint drift of the MSSVs, the design basis for thyroid doses during a steam generator tube rupture may have been exceeded.
- 2) The failure of one MSSV to open is prohibited by Technical Specifications and outside the design basis of the plant.

Because the testing method and data is still being evaluated by the licensee, a supplemental report will be submitted to the NRC prior to start-up from the current refueling outage.

The corrective action taken for the MSSV which did not open was inspection on-site and shipment to the manufacturer for testing. The remaining valves will be inspected and will be retested prior to start-up.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Haddam Neck	0 5 0 0 0 2 1 3	8 6	— 0 0 2	— 0 0	0 2	OF	0 3

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

Event Description

On January 4, 1986 a scheduled test of the main steam safety valves (MSSV) (EIIIS System Code SB, EIIIS Component Code RV) lift setpoints was performed. This test was performed at the commencement of a refueling outage. Evaluation of the test method and data are currently in progress. Preliminary indications are that four valves lifted below the setpoint pressure tolerance, one valve lifted above the setpoint tolerance, and one valve failed to open (within the test range).

The test was performed with the reactor critical in Mode 2 at hot zero power supplying heat to the secondary side. Main steam header pressure during the test was maintained at approximately 810 psig. The lift pressure was determined by applying a pneumatic assist to the MSSV stems and correlating the pneumatic assist pressure to an equivalent increase in steam pressure. Each valve was tested three times.

Reportability

This event is reportable under two criteria:

1. Due to the setpoint drift of the MSSVs, the design basis for thyroid doses during a steam generator tube rupture may have been exceeded (10CFR50.73 (a)(2)(ii)(B)).
2. The failure of one MSSV to open (i.e., inoperable) is prohibited by Technical Specification Section 3.8 (10CFR50.73 (a)(2)(i)(B)) and outside the design basis of the plant (10CFR50.73 (a)(2)(ii)(B)).

Failure Cause

The failure mode for five of the MSSVs is setpoint drift. The root cause is being investigated. The valves were inspected and no abnormal conditions were observed.

The failure cause for MS-SV-13 (failure to lift) at 7 percent above the setpoint is not yet known. Due to the range of the test equipment, the test was terminated at 7 percent above setpoint pressure. The valve was inspected and no abnormal conditions were observed. The valve has been shipped to the manufacturer for inspection and testing.

The sixteen MSSVs were manufactured by Crosby, Model No. 6Q8 Style HCU55.

System Description

There are four 6 in. by 8 in. code safety valves located on each of the four 24 in. main steam lines outside the reactor containment and upstream of the nonreturn valves. Discharge from each of the 16 safety valves is carried to the atmosphere through individual 14 in. vent stacks. The four valves in each main steam line are set to relieve at 985, 1015, 1025, and 1034 psi gage, respectively.

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Haddam Neck	0 5 0 0 0 2 1 3	8 6	— 0 0 2	— 0 0	0 3	OF	0 3

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The total relieving capacity of all 16 valves is 9,504,000 lb. per hr., providing a 22 percent margin beyond normal full load steam flow. The basis of the design for these safety valves is that they be sized to pass the steam flow resulting from the most extreme incident condition. This condition is a complete load rejection without reactor trip or other control action and without feedwater flow to the steam generators.

Safety Assessment

Because the licensee is in the process of evaluating the test method and data, the safety assessment will be provided in the supplemental report. This report will be submitted prior to start-up from the current refueling outage. The expected submittal date is March 15, 1986.

Corrective Action

The corrective action taken for the MSSV which did not open was on-site inspection, minor rework, and shipment to the manufacturer for testing. The on-site inspection and rework consisted of disassembly of the valve, lapping the valve seat surfaces, and installing a new disc. These operations were performed under the cognizance of the manufacturer's representative.

The licensee is still evaluating the root cause of the setpoint drift and failure to lift. The supplemental report will address these items as well as why prior corrective action did not prevent recurrence of the setpoint drift.

All valves will be retested at the conclusion of the refueling outage.

Similar Events

Setpoint drift of these valves was reported in LER 84-028-00.



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

RR#1 • BOX 127E • EAST HAMPTON, CONN. 06424

February 3, 1986

SS-86-27

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

Reference: Facility Operating License No. DPR-61
Docket No. 50-213
Reportable Occurrence LER 50-213/86-002-00

Gentlemen:

This letter forwards Licensee Event Report 86-002-00, required to be submitted within thirty days, pursuant to the requirements of Connecticut Yankee Technical Specifications.

Very truly yours,

Richard H. Graves
Station Superintendent

RHG/JPD/nb

Attachment: LER 86-002-00

cc: Dr. T. E. Murley, Region I