

YANKEE ATOMIC ELECTRIC COMPANY

Telephone (413) 424-5261



Star Route, Rowe, Massachusetts 01367

May 6, 1985

U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Attention: Dr. Thomas E. Murley, Regional Administrator

Subject: Licensee Event Report 50-29/84-11/Rev. 2

Pressurizer Code Safety Valve PR-SV-182 Setpoint Tolerance Error

Dear Sir:

In accordance with 10 CFR 50.73(a)(2)(i), the attached Licensee Event Report is hereby submitted.

Very truly yours,

Normand N. St. Laurent
Plant Superintendent

DWE/nm
Enclosure

cc: [3] NSARC Chairman (YAEC)
[1] Manager of Operational Quality Assurance (YAEC)
[1] Institute of Nuclear Power Operations (INPO)

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Yankee Nuclear Power Station										DOCKET NUMBER (2) 0 5 0 0 0 0 2 9 1										PAGE (3) 1 OF 0 3	
TITLE (4) Pressurizer Code Safety Valve PR-SV-182 Setpoint Tolerance Error																					
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 7	0 3	8 4	8 4	0 1 1	0 2 0	5 0	6 8	5							0 5 0 0 0						
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																		
POWER LEVEL (10) 1 0 0			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)						
			20.405(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(v)				73.71(c)						
			20.405(a)(1)(ii)				50.36(a)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
			20.405(a)(1)(iii)				X 50.73(a)(2)(i)				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 Douglas W. Ellis Plant Engineer										TELEPHONE NUMBER AREA CODE 4 1 3 4 2 4 - 5 2 6 1											
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											
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR					
YES (If yes, complete EXPECTED SUBMISSION DATE)												X NO									

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

On July 3, 1984 while operating at 100 percent power the lift setting (setpoint) of PR-SV-182, the high set Pressurizer Code Safety Valve (Safety Valve), was determined to be 2567 psig which exceeded the Technical Specifications (TS) setpoint tolerance of (2560 psig) + 0%, -3%. The determination was made during review of final Design Change documentation for the Safety Valves that replaced the original Safety Valves during the Spring 1984 refueling outage. Telephone notification to the USNRC was made; a subsequent telephone conference of NRC, plant, and corporate personnel determined that continued plant operation to be acceptable and that a written report (LER) and a Proposed Change to TS for Safety Valves setpoint tolerance was required. Further Corrective Actions involve review and revision of the procedures used to develop specifications, issuance of a report for nonconformance, and training of engineers developing specifications and correction of specifications. Each of the Safety Valves is capable of providing the relief capacity necessary to prevent the Main Coolant System pressure exceeding 2735 psig, therefore there is no danger to the public health and safety.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) Yankee Nuclear Power Station	DOCKET NUMBER (2) 0 5 0 0 0 0 2 9	LER NUMBER (6)			PAGE (3)		
		YEAR 8 4	SEQUENTIAL NUMBER — 0 1 1	REVISION NUMBER — 0 2			

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

On July 3, 1984 while operating at 100 percent power the lift setting (setpoint) of PR-SV-182, one of two new Pressurizer Code Safety Valves (Safety Valves), was determined to exceed the Technical Specifications (TS) setpoint tolerance. The determination was made during review of final Design Change documentation for the Safety Valves that replaced the original Safety Valves during the Spring 1984 refueling outage.

Telephone notification to the USNRC was made regarding this condition. A subsequent telephone conference of NRC, plant, and corporate personnel determined that continued plant operation to be acceptable and that a written report (LER) and submittal of a Proposed Change to TS for the Safety Valves setpoint tolerance would be required.

Further Corrective Actions included: review of this Design Change activity; review of procedures for Specification(s), Design Change(s), Procurement(s), and Receipt Inspections(s); review of review activities for Design Change(s); and issuance of a report for nonconformance of this activity to the requirements of the Quality Assurance Program.

The original Safety Valves were designed in accordance with the ASME Boiler and Pressure Vessel Code (Code) Section VIII. The TS setpoint tolerance of +0%, -3% originates from the $\pm 3\%$ tolerance of Section VIII; however, the +3% tolerance was deleted due to Transient Analysis assumptions that utilized nominal +0% setpoints for the Safety Valves in the Loss of Load transient design case. The Proposed Change for Safety Valves setpoint tolerance establishes the basis for the new setpoint tolerance.

Resulting from NUREG-0578 Section 2.1.2 requirements, later qualified by NUREG-0737 Item II.D.1, and Licensing correspondence, new Safety Valves were installed at YNPS. The new Safety Valves were manufactured in accordance with Code Section III requirements but did not require an "N" stamp, since the Pressurizer is not a Section III vessel. Code Section III, subsection NB-7512.2 (Opening Pressure Tolerance), requires that the setpoint tolerance "... shall not exceed ... (\pm) 1% of the set pressure for pressures over 1,000 psi ..." unless a greater set pressure tolerance can be justified. This change to a $\pm 1\%$ setpoint tolerance versus the TS setpoint tolerance of +0%, -3% is contrary to 10 CFR 50.59 since the change of tolerance was neither identified in the Design Change nor in a Proposed Change (to TS) for the replacement of the Safety Valves. The Design Change and Proposed Change did identify the change for the Safety Valve's relief capacity.

A supplemental Purchase Order was issued to the manufacturer which included the TS setpoints and tolerance of +0%, -3%; however, the manufacturer test data indicate the "As Left" set pressure of PR-SV-182, the high set pressure Safety Valve, was 2567 psig. Thus, PR-SV-182 was within the Code Section III tolerance of 2560 psig $\pm 1\%$ but exceeded the TS tolerance of 2560 psig +0%, -3%. This condition was reported by utility personnel upon discovery. The

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

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set pressure of PR-SV-181, the low set pressure Safety Valve, is 2480 psig and within the TS setpoint and tolerance of 2485 psig +0%, -3% and Code Section III tolerance of $\pm 1\%$. During receipt inspection of the new Safety Valves the TS setpoints and tolerance of 2485 psig +0%, -3% and 2560 psig +0%, -3% was not detected.

The cause of this condition was personnel failure to identify the TS setpoint tolerance.

Corrective Action(s) to prevent recurrence have included revision to procedures for Specification(s) and Receipt Inspection(s); revision to the procedure for Procurement(s) is being evaluated, but is currently considered acceptable. The procedures for Design Change(s) are considered adequate to prevent recurrence; the other noted procedures are considered to have contributed to this unusual condition. In addition, emphasis will be provided to engineers and review organization(s) personnel directly responsible for Design Change activities regarding the requirements of 10 CFR 50.59 and the contents of this report. The Proposed Change to TS for Safety Valves setpoint tolerance has been submitted. Full compliance with the Corrective Actions is anticipated by the startup date following the 1985 refueling outage.

Each of the Safety Valves is capable of providing the relief capacity necessary to prevent the Main Coolant System pressure exceeding 2735 psig, therefore there is no danger to the public health and safety.