

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Salem Generating Station - Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 3 1 1 1 OF 0 3

PAGE (3)

TITLE (4)

Pressurizer Overpressure Protection System Channel II Initiations

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	3	2	9	8	5	8	5	0	0	3	0	5	0	0	0
0	3	2	9	8	5	8	5	0	0	3	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)									
POWER LEVEL (10)	0 0 1 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)						
		20.405(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(e)						
		20.405(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vi)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	Special Report						
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)							
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
J. L. Rupp	6 0 9 3 3 9 7 4 3 0 9

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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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

On March 29, 1985, during Reactor Coolant System (RCS) fill and vent operations, with RCS pressure at 325 psig, Pressurizer Overpressure Protection System (POPS) Channel II actuated when a reactor coolant pump was started. Following the relief valve (2PR2) actuation, a POPS functional test verified that the relief valve setpoints associated with both POPS channels were within specification. On March 30, 1985, with RCS pressure between 325 and 350 psig, 2PR2 again actuated when a reactor coolant pump was started. 2PR2 closed within five seconds following the transients, and the maximum pressure reached during both transients was 380 psig. The Technical Specifications require the 2PR2 setpoint to be less than or equal to 375 psig, and the valve was observed to actuate at a minimum indicated pressure of 360 psig. The minimum pressure for starting reactor coolant pumps is 325 psig, which results in the relief valve setpoint being very close to the minimum pressure required for reactor coolant pump operation. The induced pressure transients, which normally result when reactor coolant pumps are started, caused 2PR2 to actuate. In accordance with Technical Specification 3.4.10.3 requirements, because the POPS was used to mitigate a RCS pressure transient, this special report is being submitted pursuant to the requirements of Technical Specification 6.9.2.

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PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

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

IDENTIFICATION OF OCCURRENCE:

Pressurizer Overpressure Protection System (POPS) - Channel II Initiations

Event Dates: 03/29/85
03/30/85

Report Date: 04/26/85

This report was initiated by Incident Reports 85-079 and 85-080

CONDITIONS PRIOR TO OCCURRENCE:

Mode 5 - Rx Power 000 % - Unit Load 0000 MWe

DESCRIPTION OF OCCURRENCE:

On March 29, 1985, Reactor Coolant System [AB] fill and vent operations were in progress. At 2156 hours, with indicated Reactor Coolant System pressure at approximately 325 psig, No. 21 Reactor Coolant Pump was started. The resultant pressure transient actuated Pressurizer Overpressure Protection Channel II (Power Operated Relief Valve 2PR2). The highest indicated pressure observed by the control room operator was 360 psig (on the POPS bezel section of the control room console) and 400 psig (on the Hot Leg Pressure Recorder). There was no observable increase in the Pressurizer Relief Tank level or temperature, and 2PR2 closed within five (5) seconds following actuation, terminating the pressure transient.

Following the actuation of 2PR2, a POPS functional test verified that the relief valve setpoints were within specification. The Hot Leg Pressure Recorder was verified to be reading approximately twenty to thirty (20-30) psig higher than actual pressure, indicating that the maximum pressure reached was 380 psig.

At 2020 hours, March 30, 1985, following fill and vent operations, with No. 21 Reactor Coolant Pump operating, No. 23 Reactor Coolant Pump was started. With system pressure between 325 psig and 350 psig, the resultant pressure transient again actuated 2PR2. Pressure indications were observed to be the same as during the previous transient; i.e., 360 psig on the both POPS channels, and 400 psig on the pressure recorder.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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APPARENT CAUSE OF OCCURRENCE:

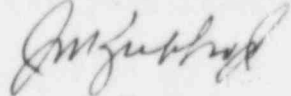
The Technical Specifications require the 2PR2 setpoint to be less than or equal to 375 psig, and the valve was observed to actuate at a minimum indicated pressure of 360 psig. Since 2PR2 is controlled by a 0-3000 psig transmitter, the apparent indicated error of 15 psig is well within the plus or minus two percent (+/-2%) channel accuracy for the transmitter and loads. The minimum pressure for operating reactor coolant pumps is 325 psig, which results in a relief valve setpoint being very close to the minimum pressure required for reactor coolant pump operation. Therefore, the induced pressure transients, which normally result when reactor coolant pumps are started, caused 2PR2 to actuate.

ANALYSIS OF OCCURRENCE:

Operations were in accordance with operating procedures; e.g., the reactor coolant pumps were not started until the minimum pressure limit for operation (325 psig) was reached, and all steam generator secondary temperatures were less than fifty degrees above reactor coolant loop temperatures. 2PR2 remained open for a minimal amount of time (approximately 5 seconds) following actuation. Had the valve failed to close, the operator would have responded by closing the blocking valve (2PR7). All systems and indications functioned as designed. There was no undue risk to the health or safety of the public due to this occurrence. In accordance with Technical Specification 3.4.10.3, Action Requirement c., because the POPS was used to mitigate a Reactor Coolant System pressure transient, this special report is being submitted pursuant to the requirements of Technical Specification 6.9.2.

CORRECTIVE ACTION:

Because the allowable instrument and channel tolerances can reduce the margin between the minimum required pressure for reactor coolant pump operation and POPS channel setpoints, the pressure transient resulting from starting a reactor coolant pump may cause actuation of either or both POPS channels. Operating Procedure OPII-1.3.4 (Filling and Venting the Reactor Coolant System) provides sufficient operator guidance during this evolution, and therefore requires no revisions. However, additional operator guidance will be provided for periods following fill and vent operations by revising Operating Procedure OPII-1.3.1 (Reactor Coolant Pump Operations). The purpose of the revision is to caution operators to the increased possibility of POPS actuations upon starting reactor coolant pumps, as the margin between system pressure and the POPS channel setpoints is reduced.


General Manager-
Salem Operations

JLR:tns

SORC Mtg 85-075



Public Service Electric and Gas Company P.O. Box E Hancocks Bridge, New Jersey 08038

Salem Generating Station

April 26, 1985

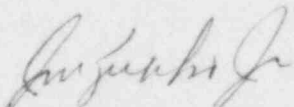
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

SALEM GENERATING STATION
LICENSE NO. DPR-75
DOCKET NO. 50-311
UNIT NO. 2
LICENSEE EVENT REPORT 85-003-00

This Licensee Event Report (Special Report) is being submitted pursuant to the requirements of Technical Specification 6.9.2. This report is required within thirty (30) days of discovery.

Sincerely yours,


J. M. Zupko, Jr.
General Manager -
Salem Operations

JR:jlr

CC: Distribution

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