

LICENSEE EVENT REPORT

CONTROL BLOCK: [][][][][] ①

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	N	J	S	G	S	2	2	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	1	1	4			5
7	8	14						15	25										26	30				57	CAT	58			
		LICENSEE CODE							LICENSE NUMBER											LICENSE TYPE									

CON'T

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On July 26, 1983, during routine startup operations, it was discovered that No. 23 ECCS Accumulator level was slightly higher than required by the Technical Specifications. Review of the operating logs revealed that the condition had existed for greater than the interval required by the appropriate action requirement. The level was immediately drained to within specification. Prompt notification to the USNRC was made in accordance with Technical Specification 6.9.1.8b.

0	8																80					
7	8	9	SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE					COMP. SUBCODE		VALVE SUBCODE						
0	9		S	F	11	A	12	A	13	A	C	C	U	M	U	14	Z	15	Z	16		
7	8		9	10		11		12		13					18		19		20			
17		LER/RO REPORT NUMBER		EVENT YEAR				SEQUENTIAL REPORT NO.				OCCURRENCE CODE		REPORT TYPE				REVISION NO.				
			8	3				0	3	6			0	1		X			1			
			21	22		23		24		26		27		28		29		30		31		32
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER						
H	18	Z	19	Z	20	Z	21	0	0	0	22	Y	23	N	24	N	25	D	1	0	0	26
33		34		35		36		37			40		41		42		43		44			47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The slightly out of specification level was associated with startup operation and

1 1 plant heatup; this was overlooked by the operator. A subsequent safety evaluation of

1 2 the incident concluded that the high level condition did not render the accumulator

1 3 inoperable and it was fully capable of performing its design function.

[illegible]

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	(37)	Z	(38)	NA	(39)

		PERSONNEL INJURIES		
NUMBER		DESCRIPTION		(41)
1	8	0	0	NA

8312300153 831213
PDR ADOCK 05000311
S PDR

1 9
2 42 NA

LOSS OF OR DAMAGE TO FACILITY
TYPE DESCRIPTION (43)

7 8 9 10 11 12

1622

PUBLICITY
 ISSUED DESCRIPTION (45)
 2 0 N (44) NA
 7 8 9 10 68 69 80
 NRC USE ONLY

NAME OF PREPARER

J. L. Rupp

PHONE: (609) 935-6000 Ext 4309



PSEG

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

Salem Generating Station

December 13, 1983

Dr. Thomas E. Murley
Regional Administrator
USNRC
Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

LICENSE NO. DPR-75
DOCKET NO. 50-311
REPORTABLE OCCURRENCE 83-036/01X-1
SUPPLEMENTAL REPORT

Pursuant to the requirements of Salem Generating Station
Unit No. 2 Technical Specifications, Section 6.9.1.8b,
we are submitting supplemental Licensee Event Report for
Reportable Occurrence 83-036/01X-1.

Sincerely yours,

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

JR:k11 *gfy*

CC: Distribution

Report Number: 83-036/01X-1

Report Date: 12-13-83

Occurrence Date: 07-26-83

Facility: Salem Generating Station Unit 2
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Emergency Core Cooling Systems - No. 23 Accumulator - Inoperable.

This report was initiated by Incident Report 83-148.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 2 - Rx Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

At 1210 hours, July 26, 1983, during routine startup operations, a review of the operating logs by an NRC Resident Inspector revealed that the recorded level (at 0800 that day) of No. 23 Emergency Core Cooling System (ECCS) Accumulator was 72.0% (approximately 6527 gallons). The maximum level allowed by Technical Specification 3.5.1 is 70.5% (6500 gallons). Further investigation revealed that the level was still out of specification at the time of discovery. The accumulator was declared inoperable and Technical Specification Action Statement 3.5.1a was entered retroactive to 0800 hours.

The level of the accumulator was immediately decreased by draining and the contained volume was returned to within Technical Specifications requirements. No. 23 ECCS Accumulator was declared operable and Technical Specification Action Statement 3.5.1a was terminated at 1213 hours, July 26, 1983. The three remaining accumulators were operable throughout the occurrence; the integrity of the Reactor Coolant System (RCS) pressure boundary was maintained throughout the period and no pressure transients occurred.

In accordance with the Technical Specifications, written confirmation of the reportable occurrence was sent to the USNRC Regional Administrator on July 26, 1983, followed by detailed report on August 4, 1983.

APPARENT CAUSE OF OCCURRENCE:

A slow increase in accumulator levels particularly during startup operation is not unusual. Investigation of the incident revealed that the high level condition had been overlooked at the time the level had been recorded on the logs. Also, the item had not been circled with a red pen as required.

ANALYSIS OF OCCURRENCE:

The operability of each ECCS accumulator ensures that a sufficient volume of borated water will be immediately forced into the reactor core through each of the RCS cold legs in the event the system pressure falls below the pressure of the accumulators. In the event of a large RCS pipe rupture, the accumulators would provide the initial surge of water into the reactor core. The accumulators are a passive engineered safety feature because the nitrogen cover gas maintained in the accumulators provides the injection force. No external power source or signal is required for actuation.

Technical Specification 3.5.1 requires each ECCS accumulator to be operable with a contained volume of borated water between 6223 and 6500 gallons, and a nitrogen cover gas pressure of between 595.5 and 647.5 psig during modes 1, 2, and 3 with pressurizer pressure above 1000 psig. These requirements ensure that the assumptions used for accumulator injection in the safety analysis are met.

Action Statement 3.5.1a requires:

With one accumulator inoperable, except as a result of a closed isolation valve, restore the inoperable accumulator to operable status within one hour or be in hot shutdown within the next 12 hours.

On September 13, 1983, Safety Evaluation S-2-N600-NSE-220 Rev. 0 was completed; this safety evaluation examined the consequences of the event previously described. A brief summary of the evaluation follows:

Exceeding the 6500 gallon limit by 27 gallons corresponded to an approximate 0.5% increase in the total water volume above the maximum Technical Specification limit. This water volume change corresponds to a 0.75% decrease in cover gas volume. The concern is the decrease in cover gas volume, rather than the increase in the water volume. The energy available for accumulator injection is directly proportional to the volume and pressure of the nitrogen cover gas contained in the accumulator. The initial cover gas pressure was 610 psig; the cover gas pressure, if the accumulator volume would have decreased to its maximum limit of 6500 gallons, would have been 603.5 psig. The cover gas pressure was initially within the required band and would have remained within the required band even after the accumulator had discharged down to a water volume of 6500 gallons; therefore, the water flow out of the accumulator would have always exceeded the minimum values assumed by the safety analysis.

Although No. 23 RCS Accumulator was technically declared inoperable for approximately 4 hours and 13 minutes because of high water level, its cover gas pressure remained sufficiently above its minimum allowed pressure to compensate for the slight decrease in cover gas volume. The status of the accumulator was such that if its operation was required, it would have been fully capable of performing its designed function. No undue risk to the health or safety of the public was therefore involved in this occurrence.

CORRECTIVE ACTION:

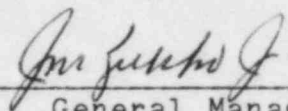
As noted, the No. 23 Accumulator level was restored to within specification at 1213 hours, July 26, 1983, and Action Statement 3.5.1a was terminated. The individual involved was counseled concerning the appropriate Technical Specifications and related accepted operating practices. As previously described, a safety evaluation was performed which concluded that exceeding the Technical Specification limit for accumulator water volume did not render the accumulator inoperable.

FAILURE DATA:

Not Applicable

Prepared By J. Rupp

SORC Meeting No. 83-149



General Manager -
Salem Operations