

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Salem Generating Station - Unit 2DOCKET NUMBER (2)
0 5 0 0 0 3 1 1 1 OF 0 3

TITLE (4)

Reactor Trip From 25% During Startup Operations

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	4	1	3	8	5	8	5	0	0	4	0	0	0	5	1	0	8	5	0	5	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

OPERATING MODE (9)	20.402(b)	20.405(a)	80.73(a)(2)(iv)	73.71(b)
1	20.405(a)(1)(i)	60.38(a)(1)	80.73(a)(2)(v)	73.71(a)
POWER LEVEL (10) 0 2 5	20.405(a)(1)(ii)	60.38(a)(2)	80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.405(a)(1)(iii)	60.73(a)(2)(i)	80.73(a)(2)(vii)(A)	
	20.405(a)(1)(iv)	60.73(a)(2)(ii)	80.73(a)(2)(vii)(B)	
	20.405(a)(1)(v)	60.73(a)(2)(iii)	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)
NAME: J. L. Rupp
TELEPHONE NUMBER: 6 0 8 3 3 9 - 4 3 0 9
AREA CODE: 6 0 8

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:

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

On April 13, 1985, during Unit startup operations, a reactor trip occurred from twenty-five percent power level. The trip occurred after the generator was synchronized to the grid, and was the result of No. 24 Steam Generator steam flow/feed flow mismatch, coincident with a low steam generator water level signal. All established procedures were followed; however, poor judgement was exercised by synchronizing the Unit while No. 24 Steam Generator Steam Flow Channel I bistables were in a tripped condition. The bistables had been placed in a tripped condition while performing transmitter voltage checks, which essentially reduced the anticipatory trip for loss of feedwater to a low steam generator water level trip alone. During startup and low power operation, oscillations in level are likely as the Unit load is increased. No. 24 Steam Generator Water Level Control System (JB) was in automatic at the time, and the level swings which resulted when the Unit was synchronized and load was increased resulted in a reactor trip when No. 24 Steam Generator water level decreased to twenty-five percent. This occurrence involved no undue risk to the health or safety of the public. Because of the automatic actuation of the Reactor Protection System, the event is reportable in accordance with the Code of Federal Regulations, 10CFR 50.73(a)(2)(iv).

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Salem Generating Station	DOCKET NUMBER	LER NUMBER	PAGE
Unit 2	05000311	85-004-00	2 OF 3

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

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

IDENTIFICATION OF OCCURRENCE:

Reactor Trip From 25% - No. 24 Steam Generator Steam Flow/ Feed Flow Mismatch Coincident With Low Steam Generator Water Level

Event Date: 04/13/85

Report Date: 5/10/85

This report initiated by Incident Report No. 85-098

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 025 % - Unit Load 100 MWe

DESCRIPTION OF OCCURRENCE:

On April 13, 1985, during Unit startup operations, a reactor trip occurred from twenty-five percent (25%) power level. The reactor trip occurred at 0143 hours, seven minutes after the generator was synchronized to the grid, and was the result of No. 24 Steam Generator steam flow/feed flow mismatch, coincident with a low steam generator water level signal. The Unit was stabilized in Mode 3, and at 0155 hours, in accordance with the requirements of the Code of Federal Regulations, 10CFR 50.72(b)(2)(ii), the Nuclear Regulatory Commission was notified of the automatic actuation of the Reactor Protection System [JC].

APPARENT CAUSE OF OCCURRENCE:

Although all established procedures were followed, poor judgement was exercised by synchronizing the Unit while No. 24 Steam Generator Steam Flow Channel I bistables were in a tripped condition (the bistables had been placed in a tripped condition while performing transmitter voltage checks). The reactor trip on steam flow/feed flow mismatch coincident with a low steam generator water level (25%) is an anticipatory trip for loss of feedwater. The bistables being in a tripped condition completed the logic for a steam flow/feed flow mismatch, which effectively reduced the coincident trip to a low steam generator water level (25%) trip alone. During startup and low power operation, oscillations in level are likely as the Unit load is increased.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Salem Generating Station	DOCKET NUMBER	LER NUMBER	PAGE
Unit 2	05000311	85-004-00	3 OF 3

APPARENT CAUSE OF OCCURRENCE: (cont'd)

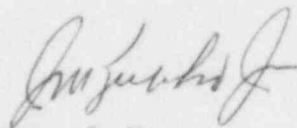
No. 24 Steam Generator Water Level Control System [JB] was in automatic at the time, and the level swings which resulted when the Unit was synchronized and load was increased resulted in a reactor trip when No. 24 Steam Generator water level decreased to twenty-five percent (25%).

ANALYSIS OF OCCURRENCE:

As previously stated, this reactor trip, on steam flow/feed flow mismatch with low steam generator water level (25%), is an anticipatory trip. Its function is to prevent a loss of heat sink capability, by sensing conditions which would eventually result in a dry steam generator. By tripping the reactor prior to reaching the low-low level setpoint (8%) in the steam generator, the required starting time and capacity requirements for the Auxiliary Feed System [BA] are reduced; thereby, minimizing the thermal transient on the steam generators and the Reactor Coolant System [AB]. The Reactor Protection System [JC] functioned as designed. This occurrence involved no undue risk to the health or safety of the public. Because of the automatic actuation of the Reactor Protection System, the event is reportable in accordance with the Code of Federal Regulations, 10CFR 50.73(a)(2)(iv).

CORRECTIVE ACTION:

This occurrence was thoroughly discussed with the operators and supervisors involved. As per PSE&G's existing policy and program to reduce the number of personnel error related incidents, a discussion of this event will be included in the Operator Requalification Program.


General Manager-
Salem Operations

JLR:tns

SORC Mtg 85-080



PSEG

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

Salem Generating Station

May 10, 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 85-004-00

This Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 (a)(2)(iv). This report is required within thirty days of discovery.

Sincerely yours,

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

JR:tcs

C Distribution

The Energy People

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