NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Salem Generating Station - Unit 2	0 5 0 0 0 3 1 1	1 OF 0 4

TITLE (4)
Failure To Comply With Technical Specification Action Requirements

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 7	8 5	8 5	0 1 0	0 0	0 8	0 6	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	3
POWER LEVEL (10)	0 0 0

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
J. L. Rupp - Operations Licensing Engineer	AREA CODE 6 0 9 3 3 9 - 4 3 0 9

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	A A	C N V	M 0 3 5	N							

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)

Unit 2 Technical Specification 3.1.3.2.2, applicable in Modes 3, 4 and 5, requires the Reactor Trip System breakers to be opened in the event of an inoperable Individual Rod Position Indication (IRPI). On July 7, 1985, during unit startup operations, with the unit in Mode 2, it was discovered that this action requirement was not complied with earlier in the day (while in Mode 3) when the IRPI for Control Rod 2SA2 was found to be deviating from the group demand indication by greater than twelve steps (the maximum allowed). The root cause of the event was attributed to the failure to fully review all applicable Technical Specifications. Contributing to this occurrence is the fact that this Technical Specification is unique to Unit 2; Unit 1 Technical Specifications do not contain a similar requirement. This event involved no undue risk to the health or safety of the public; however, because the Technical Specification action requirements were not complied with, the event is reportable in accordance with 10CFR 50.73(a)(2)(i)(B). The individual involved was counselled, and a discussion of this event is being included in the appropriate training/requalification programs. A License Change Request, prepared prior to this occurrence, is being submitted to the Commission to modify both Unit 1 and Unit 2 Technical Specifications relating to control rod position indication.

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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:

Failure To Comply With Technical Specification Action Statement

Event Date: 07/07/85

Report Date: 08/06/85

This report was initiated by Incident Report No. **85-157**

CONDITIONS PRIOR TO OCCURRENCE:

Mode 3 - Rx Power 000 % - Unit Load 0000 MWe

DESCRIPTION OF OCCURRENCE:

On July 7, 1985, unit startup operations were in progress. At 0911 hours, with the unit still in Mode 3 (hot standby), the shift supervisor observed that the Individual Rod Position Indication (IRPI) for Control Rod 2SA2 [AA] was indicating twenty (20) steps less than group demand position. Knowing that plus or minus twelve (+-12) steps is the maximum allowable deviation, a work order was issued to investigate. The low reading IRPI was calibrated and restored to an operable status. Unit startup operations continued, and at 1320 hours, with the unit in Mode 2 (startup) and reactor power approximately two percent (2%), the IRPI for Control Rod 2SA2 was again discovered to be reading lower (thirty-three steps) than group demand position. Control Rod 2SA2 IRPI was declared inoperable and Technical Specification Action Statement 3.1.3.2.1.a was entered at that time. This action statement is applicable in Mode 1 (power operation greater than 5%) and in Mode 2.

Action Statement 3.1.3.2.1.a states:

> With a maximum of one rod position indicator per bank inoperable either:
>
> 1. Determine the position of the non-indicating rod(s) indirectly by the movable incore detectors at least once per eight (8) hours and immediately after any motion of the non-indicating rod which exceeds twenty-four (24) steps in one direction since the last determination of the rod's position, or
>
> 2. Reduce thermal power to less than fifty percent (50%) of rated thermal power within eight (8) hours.

DESCRIPTION OF OCCURRENCE: (cont'd)

As mentioned, this Technical Specification is applicable in Modes 1 and 2. At the time it was entered, it was observed that Unit 2 Technical Specification 3.1.3.2.2, applicable in Mode 3, Mode 4 (hot shutdown) and Mode 5 (cold shutdown), requires the Reactor Trip System [JC] breakers to be opened in the event of an inoperable IRPI. At this time, it was realized that this action requirement was not complied with earlier in the day when the IRPI for Control Rod 2SA2 was inoperable while operating in Mode 3.

APPARENT CAUSE OF OCCURRENCE:

The cause of this occurrence was personnel error, with the root cause being attributed to the failure of the Senior Reactor Operator in charge to fully review all applicable Technical Specifications, when the IRPI was first discovered to be deviating from group demand while in Mode 3. Contributing to this occurrence is the fact that Technical Specification 3.1.3.2.2 is unique to Unit 2. Unit 1 does not contain the Technical Specification requirement to open the Reactor Trip System breakers (while in modes 3, 4 or 5) in the event of an inoperable IRPI.

It is not uncommon for the IRPI's to experience calibration drifts of the channel components and the position sensor outputs during plant heatups following unit shutdowns. The sensor outputs are temperature sensitive. Corrections for thermal effects of plant heatup on the position sensor outputs are incorporated into calibration data, but may not exactly predict actual changes in output.

ANALYSIS OF OCCURRENCE:

Operability of the IRPI's is required to determine contol rod positions, thereby ensuring compliance with the control rod alignment and insertion limits assumed in the accident analyses. In Mode 3, the requirement to open the reactor trip breakers, if any IRPI is inoperable, assures an even flux distribution on any approach to criticality. However, if a control rod is misaligned at power levels below the power range, the core flux level is low enough that no significant flux tilt would be present. As previously stated, this Technical Specification is applicable in Modes 3, 4 and 5, and only applies to Unit 2; Unit 1 Technical Specifications do not have a similar requirement. This event involved no undue risk to the health or safety of the public. However, because the Technical Specification action requirements were not complied with, the event is reportable in accordance with the Code of Federal Regulations, 10CFR 50.73(a)(2)(i)(B).

CORRECTIVE ACTION:

Following the second event involving Control Rod 2SA2 IRPI deviating from group demand, a calibration check was again performed. The signal conditioning module would not remain in calibration; it kept drifting downward at the top value. The module was replaced and a satisfactory calibration procedure was performed. Control Rod 2SA2 IRPI was restored to an operable status, and Technical Specification Action Statement 3.1.3.2.1.a was terminated at 1718 hours, July 7, 1985.

The supervisor involved was counselled concerning the need to improve his thought process when reviewing Technical Specification requirements. As with all personnel error related incidents, a discussion of this event will be included in the appropriate training/requalification programs.

License Change Request No. 85-12 has been prepared, and is presently being reviewed for submittal to the Nuclear Regulatory Commission. This License Change will modify both Unit 1 and Unit 2 Technical Specifications relating to control rod position indication. The change was prepared utilizing a recommended plan by Westinghouse, which has been previously reviewed by the Commission. The change was prepared prior to this occurrence because of calibration problems experienced with the IRPI's during periods associated with plant heatups and startups. In addition to modifying the calibration requirements, the change will eliminate the Unit 2 requirement to open the Reactor Trip System breakers in the event of an inoperable IRPI in Modes 3, 4 or 5. The proposed change will require Group Demand Position Indication to be operable in lieu of Individual Rod Position Indication.

General Manager-
Salem Operations

JLR:tns

SORC Mtg 85-115

PSE&G

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

Salem Generating Station

August 6, 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 85-010-00

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

Sincerely yours,

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

JLR:tcs

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