PSEG

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038

Salem Generating Station

April 20, 1990

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 89-015-01; SUPPLEMENT

This Supplemental Licensee Event Report is being submitted pursuant to the requirements of 10CFR 50.73. The corrective action commitment to complete a Technical Specification verification audit was extended to December 1990, from April 1990.

Sincerely yours,

L. K. Miller
General Manager -
Salem Operations

MJP:pc

Distribution

IE22
1/1

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/88

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 5

TITLE (4)

TS Surv. 4.3.3.7 Non-Compliance Due To Personnel 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	2 6	8 8	8 9	0 1 5	0 1	0 4	2 0	9 0	Salem Unit 1	0 5 0 0 0 2 7 2
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (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(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
	AREA CODE
M. J. Pollack - LER Coordinator	6 0 9 3 3 9 - 2 0 2 2

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	

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 9/18/89, it was discovered that the channel calibration for the two (2) Containment Wide Range Pressure Post Accident Channels had not been completed within the required time frame as required by Technical Specification Surveillance 4.3.3.7. The Surveillance had been required to be completed no later than 7/26/88. The root cause of this event has been attributed to personnel error. This was a result of inattention to detail upon implementation review of the April 1987 Technical Specification Amendment (both Units) which added the wide range pressure indication requirements. The pressure channels were surveilled prior to this amendment but as a preventive maintenance (PM) requirement. When the Technical Specification became effective, two of the four narrow range pressure transmitters were incorrectly identified as the wide range transmitters. The actual wide range transmitters PM specification was therefore not changed to a Surveillance Task (ST) specification. Contributing to this event was a relatively weak Technical Specification Amendment implementation process in 1987. This process has since been upgraded, reference Unit 1 LER 272/89-028-00. The Unit 2 wide range channels were surveilled as per the Technical Specifications and on 9/19/89 the Action Statement was exited. The MMIS data base has been revised to correctly identify the narrow and wide range containment pressure transmitters. The PM tasks were changed to ST tasks for the wide range containment pressure indication. A verification audit to ensure all requirements of the Unit 1 and Unit 2 Technical Specification Surveillances are met will be completed in December 1990.

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

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

IDENTIFICATION OF OCCURRENCE:

Technical Specification Surveillance 4.3.3.7 not completed within the required time frame due to personnel error

Event Date: 7/26/88
Discovery Date: 9/18/89
Report Date: 04/20/90

This report was initiated by Incident Report Nos. 89-567 and 89-573.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 Reactor Power 100% - Unit Load 1130 MWe

DESCRIPTION OF OCCURRENCE:

On September 18, 1989 at 1230 hours, it was discovered that the channel calibration for the two (2) Containment Wide Range Pressure Post Accident Channels had not been completed within the required time frame as required by Technical Specification Surveillance 4.3.3.7. The Surveillance had been required to be completed no later than July 26, 1988.

The late surveillance was discovered by Nuclear Quality Assurance (NQA) who had been tasked to evaluate Salem Station Technical Specification compliance. The scope of the evaluation included taking a random sample of Unit 1 and Unit 2 Technical Specification Surveillances to verify that appropriate Surveillance Task work orders (STWOs) and procedures exist.

Technical Specification 3.3.3.7 states:

> "The accident monitoring instrumentation channels shown in Table 3.3-11a and Table 3.3-11b shall be operable.
>
> APPLICABILITY: MODES 1, 2, AND 3."

Table 3.3-11b Action 7 states:

> "With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed until the next CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

APPARENT CAUSE OF OCCURRENCE:

The root cause of this event has been attributed to personnel error.

APPARENT CAUSE OF OCCURRENCE: (cont'd)

In April 1987, Technical Specification Amendment No. 53 (79 for Unit 1) was implemented. This Amendment added the requirements associated with containment wide range pressure indication. The pressure channels (which were installed circa 1981) were calibrated, prior to this amendment, as a preventive maintenance (PM) requirement. When the Technical Specification became effective, two (2) of the four (4) narrow range pressure transmitters were incorrectly identified as the wide range transmitters due to an inattention to detail. The actual wide range transmitters PM specification was therefore not changed to a Surveillance Task (ST) specification. The ST designation is specific to Technical Specification Surveillance requirements.

Contributing to this event was a relatively weak Technical Specification Amendment implementation process in 1987. As discussed in Unit 1 LER 272/89-028-00, the Technical Specification Amendment implementation program has been revised. This program now has a single individual delegated to ensure Amendments are reviewed by cognizant personnel. This individual uses computerized tracking (using the Action Tracking System (ATS)) to ensure appropriate and timely implementation actions. Additionally, the Station Operations Review Committee (SORC) approves all Amendment implementation actions, prior to Amendment implementation, after verification that all affected departments are prepared to institute the programmatic or procedural changes necessitated by the Amendment. Had this program been in place when the 1987 Technical Specification Amendment was implemented, the PM would have been changed to an ST; therefore this event would not have occurred.

ANALYSIS OF OCCURRENCE:

The accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. Specifically, the Containment Wide Range Pressure Channels provide post accident indication of containment pressure. This capability is consistent with the Recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0578, "TMI Lessons Learned Task Force Status Report and Short-Term Recommendations."

In January 1989, a Technical Department audit which validated the MMIS computerized work order system Technical Specification Surveillance data base was completed. The scope of the audit included confirmation that each surveillance procedure had a recurring task in the data base, that recurring tasks in the data base were applicable to referenced Technical Specifications (this included frequency and schedule type) and that each Technical Specification had a recurring task (i.e., line by line check).

The Technical Department auditors did not identify this missed surveillance because the MMIS resource/component data base had

ANALYSIS OF OCCURRENCE: (cont'd)

identified two (2) of the four (4) narrow range containment pressure transmitters as narrow and wide range transmitters. The auditors believed that the MMIS data base correctly identified applicable equipment. Also, it was incorrectly assumed that the narrow range calibration procedure fulfilled the wide range calibration requirements since the narrow and wide range transmitters were apparently one and the same as per the data base.

As indicated above, the MMIS resource/component data base only identified four (4) containment pressure transmitters, two (2) narrow range and two (2) wide/narrow range. The QA evaluation revealed this is not the case. There are six (6) transmitters, two (2) are wide range and four (4) are narrow range. This was not identified by the Technical Department audit since the audit did not include in its scope a verification of the resource/component data base.

Upon identification of the late surveillance, the Unit 2 wide range containment pressure channels were calibrated. One (1) of the transmitters required zero and range adjustment. The other transmitter was found to be within required specifications of the surveillance.

Investigation of the Salem Unit 1 wide range containment pressure channels identified a similar concern. The Unit 1 Technical Specifications for these channels are identical to Unit 2 Technical Specifications. It was found that the surveillance had been performed within the last eighteen (18) months (i.e., April 6, 1989 for Channel IV and May 24, 1989 for Channel III). However, a review of the historical surveillances revealed that the Unit 1 channels had not been surveilled for approximately three years prior to the 1989 surveillance (i.e., April 8, 1986), although, the eighteen (18) month surveillance requirement did not become effective until April 1987.

With one (1) of the two (2) Unit 2 wide range channels within required tolerances as per the specifications, the required function to monitor post accident containment pressure would have been met. Therefore, this event did not affect the health or safety of the public. However, since the wide range containment pressure post accident monitoring channels surveillances were not completed within their required time frame (both Units), this event is reportable as per Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B).

CORRECTIVE ACTION:

Upon discovery of this event, Technical Specification Table 3.3-11b Action 7 was entered at 1230 hours on September 18, 1989. The Unit 2 wide range containment pressure post accident monitoring channels were surveilled as per the Technical Specifications. The Action Statement was exited at 1010 hours on September 19, 1989.

As committed to in a recent NRC violation response, all station personnel completed review of the senior management video tape

CORRECTIVE ACTION: (cont'd)

addressing attention to detail. It was presented in conjunction with a set of the accepted procedural compliance work standards, "Salem Handbook of Standards".

The MMIS resource/component data base has been revised to correctly identify the narrow and wide range containment pressure transmitters. To ensure future compliance with the Technical Specification requirement, the preventive maintenance tasks were changed to surveillance tasks for the wide range containment pressure indication.

The Technical Specification improvement project completed in January 1989, discussed in the Analysis of Occurrence section, addressed the concerns associated with the transfer of the Inspection Order system to the new MMIS in 1986. These concerns included missed Technical Specification Surveillances attributed to that transfer. Since then, additional administrative changes have been put in place to ensure proper use of the MMIS data base to prevent additional missed Technical Specification Surveillances. The most recent project undertaken by PSE&G has been the Procedure Upgrade Project. This project will result in the thorough review and technical verification of procedures in use at Salem Generating Station.

To ensure a similar event does not occur, a verification audit of the Unit 1 and Unit 2 Technical Specification Surveillances, ensuring all requirements are met, has been initiated and will be completed in December 1990. The audit includes identification of all required Surveillances. Those Surveillances with performance frequencies greater than seven (7) days will be verified to have specific recurring tasks and that those tasks contain the correct relevant information. This will verify the accuracy of the MMIS resource/component data base for those components requiring surveillance activities. Where the data base proves incorrect, it will be revised accordingly. Due to the root cause identified, the initial effort of this audit is being focused on all Technical Specification Amendments for both Units. The Procedure Upgrade Project will verify that those procedures which address Technical Specification Surveillance requirements are technically consistent with those requirements.

J. K. Miller

General Manager -
Salem Operations

MJP:pc

SORC Mtg. 90-025