



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

MAY 28 1997

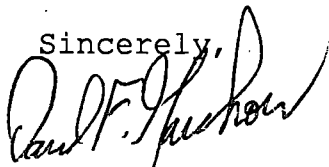
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U.S. Nuclear Regulatory Commission  
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Washington, DC 20555

LER 272/96-004-02  
SALEM GENERATING STATION - UNIT 1  
FACILITY OPERATING LICENSE NO. DPR-70  
DOCKET NO. 50-272

Gentlemen:

This Licensee Event Report supplement entitled "Containment Isolation Valve Missed Technical Specification Surveillance" is being submitted pursuant to the requirements of the Code of Federal Regulations 10CFR50.73 (a) (2) (i) (B).

Sincerely,  
  
David F. Garchow  
General Manager  
Salem Operations

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Attachment

RAR

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LER File 3.7

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The power is in your hands.

**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) SALEM GENERATING STATION UNIT 1	DOCKET NUMBER (2) 05000272	PAGE (3) 1 of 5
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TITLE (4)  
Containment Isolation Valve Missed Technical Specification Surveillance

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 NAME	DOCKET NUMBER
03	07	96	96	004	02	05	28	97	Salem Unit 2	05000311
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9) N

POWER LEVEL (10) 000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)

20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)	50.73(a)(2)(viii)
20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)
20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)	73.71
20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)	OTHER
20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Robin A. Ritzman, Licensing Engineer	TELEPHONE NUMBER (Include Area Code) 609-339-1445
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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)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 7, 1996, a determination was made that the requirements of Technical Specification 4.6.1.1 were not fully implemented at Units 1 and 2. Specifically, the monthly surveillance procedure that has been used to implement Technical Specification 4.6.1.1 did not direct position verification of the Refueling Canal Supply and Discharge Containment Isolation Valves. This condition has existed since at least 1986. As a corrective action, a review of the Salem Unit 2 containment isolation valves was performed, and additional valves were determined to be missing from the appropriate surveillance procedure.

The apparent cause of this occurrence is attributed to a lack of adequate controls for the development and maintenance of Technical Specification surveillance procedures. This weakness was previously identified in LER 311/95-008. Corrective actions as stated in this previous LER are still in progress, and will include verification of the adequacy of Technical Specification surveillance procedures, with limited exceptions, and verification that controls are in place to maintain the adequacy of the procedures.

This event is reportable in accordance with 10 CFR 50.73(a) (2) (i) (B), any condition prohibited by the plant's Technical Specifications.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

PLANT AND SYSTEM IDENTIFICATION

Westinghouse - Pressurized Water Reactor

- Waste Disposal Liquid System (WL)
- Chemical and Volume Control System (CB)
- Safety Injection System (BQ)
- Containment Spray System (BE)
- Main Steam System (SB)
- Feedwater System (SJ)
- Component Cooling Water System (CC)
- Steam Generator Blowdown System (GB)

IDENTIFICATION OF OCCURRENCE

Discovery Date: March 7, 1996

Event Dates: The failure to perform adequate, documented verification of the referenced containment isolation valves occurred during each required surveillance interval, possibly since initial licensing, with the plants in Modes 1 through 4.

CONDITIONS PRIOR TO OCCURRENCE

At the time of identification, Salem Units 1 and 2 were shutdown and defueled. The Technical Specification surveillance Mode applicability is 1 through 4.

DESCRIPTION OF OCCURRENCE

Technical Specification 4.6.1.1 states, "Primary CONTAINMENT INTEGRITY shall be demonstrated at least once per 31 days by verifying that all penetrations not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Table 3.6-1 of Specification 3.6.3.1, and all equipment hatches are closed and sealed."

In response to questions raised during the NRC Restart Assessment Team Inspection at Hope Creek, Salem Station initiated a review of its procedure for containment isolation valve position verification. The review identified four valves (1WL190, 1WL191, 2WL190, and 2WL191) that were not included in the monthly (31 day) Containment Isolation Valves surveillance procedure. A random sampling of historical records showed that the valves had been missing from the surveillance tests at both units since at least 1986. The valves had been listed in Table 3.6-1 of the Unit 1 and 2 Technical Specifications since the licenses were issued.

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**DESCRIPTION OF OCCURRENCE (cont'd)**

As part of corrective action 1 of LER 272/96-004-00, a review of the Salem Unit 2 containment isolation valves (CIVs) was performed to assure that CIVs were properly identified and tested. This review identified that Unit 2 manual valves CV291, GB18, MS130, MS55, MS201, MS199, VC24, and VC25 are within the containment isolation boundary; however, these valves were not included in periodic position verification procedures. The review also determined that valve 21VC20 was incorrectly identified in Technical Specification Table 3.6-1 as valve 21SF20. It was also determined by this review that valves 2SJ71, the Fuel Transfer Tube, 2CS903, and 2CV98 are not CIVs although they are listed on Technical Specification Table 3.6-1.

Technical Specification Table 3.6-1 also identified valves CV68 and CV69 as Phase A CIVs; however, these valves only isolate on a Safety Injection Signal ("S" signal) as stated in the UFSAR. The Phase A isolation signal is either generated from the "S" signal or from a sensed containment high pressure which is also an input for safety injection actuation.

Further reviews have identified 52 additional valves determined to be missing from surveillance procedures, and two valves (21SJ146 and 22SJ146 valves) that were being tested on a 92 day versus 31 day testing frequency. The same problem is expected to be found on Unit 1.

**CAUSE OF OCCURRENCE**

The cause of this occurrence is attributed to a lack of adequate controls for the development and maintenance of Technical Specification surveillance procedures and inadequate design review during the development of Technical Specification Table 3.6-1. This weakness was previously identified in LER 311/95-008.

**PRIOR SIMILAR OCCURRENCES**

A review of LERs for Salem Units 1 and 2 issued in the last two years identified eight LERs related to missed surveillances due to procedural deficiencies (272/96-005, 272/96-024, 272/96-026, 272/96-035, 272/96-039, 272/96-040, 311/95-008 and 311/96-007). The corrective actions were specific to the missed surveillance issues addressed in each LER. The identification of similar programmatic issues resulted in the initiation of the Technical Specification Surveillance Improvement Program (TSSIP) described in LER 311/95-008. The TSSIP should ensure that Technical Specification surveillance requirements are adequately proceduralized.

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**SAFETY CONSEQUENCES AND IMPLICATIONS**

Administrative controls such as post outage valve lineup checks would likely have ensured that the 1(2)WL190 & 1(2)WL191 valves were properly shut prior to power operations following an outage. Additionally, the monthly surveillance procedures included position verification of the outside Containment Refueling Canal Supply and Discharge isolation valves (1SF22, 1SF36, 2SF22, and 2SF36). Thus there were no safety consequences associated with this condition since containment integrity would not have been affected in the unlikely event of an accident.

Testing was performed for valve 21VC20 and is currently being performed that meets the Technical Specification surveillance testing required for this CIV, thus there were no safety consequences associated with this condition.

For CV291, VC24, and VC25 administrative controls such as post outage valve lineup checks would likely have ensured that these valves were properly shut prior to power operations following an outage. Thus there was no safety consequences associated with this condition since containment integrity would not have been affected in the unlikely event of an accident.

The MS199 is a manual valve that supplies the Main Steam strut pipe heating system. This valve remains open to support the proper operation of the Main Steam Safety Valves. The MS55 and MS201 valves are one inch manual drain valves off of the steam supply lines to the turbine driven auxiliary feedwater pump. These valves remain open during normal operation to ensure removal of condensate to assure operation of the turbine without the presence of water slugs. The MS130 is a manual valve that remains open to provide a continuous supply to the Main Steam radiation monitors and secondary side sampling. PSE&G evaluated the impact of these valves remaining open during normal operation. Analyses performed to support the Control Area Ventilation Upgrade project indicate that the offsite doses from the Steam Generator Tube Rupture and Main Steam Line Break events will remain well within the guidelines of 10CFR100. Results also indicate that control room doses remain within the guidelines of GDC 19.

Although the GB18 valves were not included in the surveillance test procedure for containment integrity, the GB19 valves which are manual valves downstream of the GB18s were included in the surveillance procedure for position verification. Thus there were no safety consequences associated with this condition since containment integrity would not have been affected in the unlikely event of an accident.

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**SAFETY CONSEQUENCES AND IMPLICATIONS (cont'd)**

Although valves CV68 & CV69 do not receive a direct Phase A isolation signal, these valves close on a Safety Injection Signal which generates a Phase A isolation. The only direct automatic actuation for Phase A isolation is from a sensed containment high pressure. The sensed containment high pressure will also generate a safety injection actuation signal. The CV68 and CV69 valves are surveilled in accordance with their technical specification frequency to isolate on a safety injection signal. Thus there is no safety significance associated with this condition since the valves will isolate in the unlikely event of an accident.

The 52 additional valves missing from position verification surveillances reported in this supplement are drains, vents or test connections located inside the Containment. All of the valves are connected to systems which are pressurized during normal plant operations. All affected valves would either have been identified by system leakage or have a second normally closed valve in the line that would have provided at least one closed valve on the penetration. The safety significance of not surveilling these valves is considered minimal.

The 21(22)SJ146 valves were being surveilled on a 92 day versus 31 day frequency. The valves are located behind sealed hatches that were also surveilled on the 92 day frequency. The safety significance of surveilling these valves on an incorrect frequency is considered minimal.

**CORRECTIVE ACTIONS**

1. A review is being performed to ensure that all containment isolation valves are included, as required, in the periodic position verification surveillance tests. This review will also verify the proper isolation signals for phase A and phase B containment isolation valves. The review for Unit 2 has been completed. The review for Unit 1 will be completed prior to the restart of Unit 1.
2. A Technical Specification Surveillance Improvement Project (TSSIP) has been initiated for Salem Units 1 and 2. The scope and content of the TSSIP program was described previously in LER 311/95-008-00. The TSSIP review is expected to be complete by December 31, 1997.
3. PSE&G evaluated the impact of manual valves MS199, MS55, MS201, and MS130 remaining open during normal operation and determined the safety consequences to be minimal.
4. The identified missing Unit 1 and Unit 2 valves have been added to the appropriate surveillance procedures and the surveillance frequencies have been corrected.