

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Salem Generating Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 7 2	PAGE (3) 1 OF 0 5
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TITLE (4)  
T. S. 3.3.3.9 Action 36 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)																																																						
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) 4</td> <td colspan="11">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 0 0 0</td> <td>20.402(b)</td><td></td><td>20.406(c)</td><td></td><td>50.73(a)(2)(iv)</td><td></td><td>73.71(b)</td> </tr> <tr> <td>20.406(a)(1)(i)</td><td></td><td>50.36(c)(1)</td><td></td><td>50.73(a)(2)(v)</td><td></td><td>73.71(c)</td> </tr> <tr> <td>20.406(a)(1)(ii)</td><td></td><td>50.36(c)(2)</td><td></td><td>50.73(a)(2)(vii)</td><td></td><td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 365A)</td> </tr> <tr> <td>20.406(a)(1)(iii)</td><td></td><td>X 50.73(a)(2)(i)</td><td></td><td>50.73(a)(2)(viii)(A)</td><td></td> </tr> <tr> <td>20.406(a)(1)(iv)</td><td></td><td>50.73(a)(2)(ii)</td><td></td><td>50.73(a)(2)(viii)(B)</td><td></td> </tr> <tr> <td>20.406(a)(1)(v)</td><td></td><td>50.73(a)(2)(iii)</td><td></td><td>50.73(a)(2)(ix)</td><td></td><td></td> </tr> </table>												OPERATING MODE (9) 4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											POWER LEVEL (10) 0 0 0	20.402(b)		20.406(c)		50.73(a)(2)(iv)		73.71(b)	20.406(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)	20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)	20.406(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)		
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LICENSEE CONTACT FOR THIS LER (12)

NAME M. J. Pollack - LER Coordinator	TELEPHONE NUMBER AREA CODE: 6 0 9 3 3 9 - 4 0 2 2
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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)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On 2/6/89, station personnel discovered inadequate sampling of Plant Vent effluent releases contrary to the requirements of the Tech. Spec. 3.3.3.9 Table 3.3-13 Action Statement 36, which requires composite samples. Plant Vent composite samples are routinely obtained by pulling a sample from the 1R41 (Plant Vent low level radiation monitors) flow path. When the 1R41 sample pump becomes inoperable, the flow through the composite sampling line recirculates thereby confounding the sample. To prevent inadequate sampling, the composite sample outlet line is disconnected and the flow directed through a poly bottle to the Auxiliary Building. This was done when it was discovered that the pump was off. The shift entered the appropriate Tech. Spec. Action Statements upon notification of the pump condition. Subsequently, when the 1R41 pump was returned to service, the Action Statements were terminated. The root cause of this event has been attributed to inadequate procedures. Functional testing of the 1R41A channel (initiated prior to discovery of the pump in the off condition) causes the R41 pump to turn off, however, this is not specifically identified in the functional testing procedure. Procedure(s) will be revised as applicable. This event will be reviewed with applicable Maintenance and Operations Department personnel and by the Nuclear Training Center for incorporation into applicable training programs. Installation of a new composite sampling alignment off of the R45 sample line has been completed. System Engineering will review R45 RMS channel procedures to ensure that appropriate actions are taken upon loss of flow.

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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:

Technical Specification 3.3.3.9 Table 3.3-13 Action 36 Non-Compliance Due To Inadequate Procedures

Event Dates: 2/06/89

Report Date: 3/08/89

This report was initiated by Incident Report No. 88-538.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 4 Reactor Power 0% - Unit Load 0 MWe

DESCRIPTION OF OCCURRENCE:

On February 6, 1989 at 1115 hours, Radiation Protection/Chemistry Department personnel discovered inadequate sampling of Plant Vent {VL} effluent releases contrary to the requirements of the Technical Specifications. Technical Specification 3.3.3.9 Table 3.3-13 Action Statement 36 requires composite iodine and radioactive particulate samples. This allows the continued effluent release via the Plant Vent.

Plant Vent composite iodine and particulate samples are routinely obtained by pulling a sample from the 1R41 (Plant Vent low level radiation monitors) flow path. When the 1R41 sample pump becomes inoperable, the flow through the composite sampling line recirculates thereby confounding the sample. In this situation, to continue obtaining a representative composite sample, the composite sample outlet line is disconnected and the flow directed through a poly bottle to the Auxiliary Building. This was done when it was discovered that the pump was off.

Technical Specification 3.3.3.9 Table 3.3-13 Action 36 states:

"With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2."

On February 6, 1989 at approximately 0930 hours, the 1R41 pump was turned off by Maintenance-I&C personnel in support of functional testing of the 1R41 channels. As stated above, the pump was

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DESCRIPTION OF OCCURRENCE: (cont'd)

discovered off at 1115 hours. Therefore, between 0930 hours and 1115 hours, composite sampling was inadequate. The shift entered Technical Specification 3.3.3.9 Table 3.3-13 Action Statement 31 and 36 upon notification of the pump condition. At 1145 hours that day, the Technical Specification Action Statements were terminated upon the return to service of the 1R41 pump.

Technical Specification 3.3.3.9 Table 3.3-13 Action 31 states:

"With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

- a. At least two independent samples of the tank's contents are analyzed, and
- b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valving lineup;

Otherwise, suspend release of radioactive effluents via this pathway."

APPARENT CAUSE OF OCCURRENCE:

The root cause of this event has been attributed to inadequate procedures.

Investigation revealed that the functional testing surveillance of the 1R41A channel (1PD4.2.064, "Channel Functional Test - 1R41A Plant Vent Particulate Process Monitor") causes the R41 pump to turn off. As part of the procedure, the battery voltage for the setpoint memory is checked. This involves disabling the power supply. Since the R41 pump control module is connected with the 1R41A channel, the pump turns off when the R41A channel power supply is disabled. The procedure does not clearly specify this. Subsequently, the operating shift approved the work without recognizing that the pump would be turned off.

ANALYSIS OF OCCURRENCE:

The Plant Vent directs effluent discharges to the environment. These discharges include Waste Gas System {WE} effluent, Fuel Handling Building Exhaust {VG}, Auxiliary Building Exhaust {VF}, Containment purge {VA} and Containment Pressure/Vacuum Relief. These various effluent discharges are HEPA filtered and charcoal filtered (as applicable) prior to discharging to the Plant Vent. The Waste Gas System effluent is sampled and analyzed independently prior to discharge to the Plant Vent.

Containment purge is directed to the Plant Vent via the Auxiliary

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ANALYSIS OF OCCURRENCE: (cont'd)

Building Ventilation System.

The 1R41 Plant Vent Monitors continuously monitor the plant vent effluent releases. Channel A monitors radioactive particulates, Channel B monitors radioactive iodines and Channel C monitors radioactive noble gases. Channels A, B and C provide an alarm signal which will cause the automatic isolation of the Containment Pressure/Purge - Vacuum Relief System. Channel C also provides an alarm signal which causes closure of the WG41 valve (Waste Gas Decay Tank Vent Control Valve).

The R16 channel corroborates indications for the R41C channel. However, the R16 channel does not have any automatic interlocking features. Technical Specification 3.3.3.9 Table 3.3-13 requires either the 1R41C to be operable or the 1R16 monitor to be operable. During this event, the 1R16 monitor was operable.

During this event, no Containment purge nor Waste Gas System discharge occurred. Also, Plant Vent monitoring including the high range Plant Vent monitors (1R45 channels) and the 1R16 channel were operable. The various area radiation monitors for the Fuel Handling Building and the Auxiliary Building were operable. Also, during specific work activities, local air sampling was conducted as required per radiation protection work practices. Therefore, this event did not affect the health of the public. However, this event is reportable in accordance with Code of Federal Regulations 10CFR 50.73(a)(2)(i)(B) since the Plant Vent effluent releases were not terminated when the normal composite sampling alignment became inadequate.

CORRECTIVE ACTION:

Maintenance-I&C procedure(s) for the functional testing of the R41 channels will be revised. This revision will include notification of Chemistry Department personnel and the Operating shift upon turning off the R41 pump. These changes will be made to the procedures for both Salem units. Investigation revealed that the R11A (Containment Particulate Radiation Monitor) and the R45A (High Range Plant Vent Particulate Monitor) channels also have the same pump control concern as with the R41A channel. Therefore, procedures associated with these channels will be modified as appropriate.

A new composite sampling alignment has been completed. The composite samples will be obtained off of the high range Plant Vent Monitor's (R45s) sample line. Installation has been completed for both Unit 1 and Unit 2. Testing of the alignment should be complete within the next two weeks. Once the alignment is declared operable, the R41 composite sample alignment will be used only in the event that the R45 alignment becomes inoperable.

PSE&G System Engineering will review procedures associated with the

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CORRECTIVE ACTION: (cont'd)

R45 RMS channels (both Units) to ensure that appropriate actions are taken upon loss of flow.

This event will be reviewed with applicable Maintenance and Operations Department personnel.

This event will be reviewed by the Nuclear Training Center for incorporation into applicable training programs.

  
General Manager -  
Salem Operations

MJP:pc

SORC Mtg. 89-018



**PSEG**

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

Salem Generating Station

March 8, 1989

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Dear Sir:

SALEM GENERATING STATION  
LICENSE NO. DPR-70  
DOCKET NO. 50-272  
UNIT NO. 1  
LICENSEE EVENT REPORT 89-009-00

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

Sincerely yours,

*L K Miller/ps*

L. K. Miller  
General Manager -  
Salem Operations

MJP:pc

Distribution

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