

Public Service
Electric and Gas
Company

Louis F. Storz
Senior Vice President - Nuclear Operations

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-5700

FEB 29 1996

LR-N96030

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

**RESPONSE TO NRC NOTICE OF VIOLATION
INSPECTION REPORT 50-272/95-81, 50-311/95-81
SALEM GENERATING STATION
UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311**

NRC Inspection Report Nos. 50-272/95-81 and 50-311/95-81 for Salem Nuclear Generating Station Unit Nos. 1 and 2 was transmitted to Public Service Electric & Gas Company (PSE&G) on January 31, 1996. Within the scope of this report, four violations of NRC requirements were cited.

Pursuant to the provisions of 10CFR2.201, PSE&G submits its response to the aforementioned violation. The Attachment to this letter contains the violations as cited by the NRC and the associated PSE&G response.

Should there be any questions regarding this submittal, please do not hesitate to contact us.

Sincerely,

Chas C. Warner FOR LFS

Attachment (1)

9603120229 960229
PDR ADOCK 05000272
Q PDR

110085

FEB 29 1996

C Mr. T. T. Martin, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. L. N. Olshan, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 14E21
Rockville, MD 20852

Mr. C. Marschall - Salem (X24)
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager, IV
Bureau of Nuclear Engineering
33 Arctic Parkway
CN 415
Trenton, NJ 08625



ATTACHMENT 1

NOTICE OF VIOLATION

Public Service Electric and Gas Company
Salem Nuclear Generating Station
Units 1 and 2

Docket Nos: 50-272
50-311
License Nos: DPR-70
DPR-75

During an NRC inspection conducted on October 5 through November 13, 1995, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (60 FR 34381; June 30, 1995), the violations are listed below:

- I. 10 CFR 50.54(q) requires, in part, "A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in Appendix E of this part."

The Emergency Classification Guide (ECG), Section 10, "Loss of Instrumentation/Annunciation/Communications," requires an alert declaration if "Loss of most or all (>75%) Overhead Annunciators, (excluding a scheduled test or maintenance activity for which pre-planned compensatory measures have been implemented) and 15 minutes have elapsed since the loss of annunciators."

The ECG, "Introduction and References" section, Step V.A. requires, in part, that "If the Emergency Coordinator, using his best judgement, determines an Initiating Condition has been satisfied but the specific EAL is in question, he/she should promptly classify the event in accordance with the Initiating Condition. In any event, if the plant conditions are equivalent to one of the four emergency classes ..., that classification should be declared."

Contrary to the above, an alert for a loss of annunciator event was not promptly declared as required by the ECG, "Introduction and References" section, Step V.A., on October 4-5, 1995. The operating crew recognized that the initiating condition had been satisfied by about 11:12 p.m., on October 4. The alert was declared at 1:38 a.m., on October 5.

This is a Severity Level IV violation (Supplement VIII).

PSE&G concurs with the violation.

(1) The reason for the violation.

The root cause of this event was personnel error. The SNSS failed to declare an ALERT in accordance with Emergency Classification Guide after recognizing the entire OHA system was inoperable for >15 minutes.

A contributing factor associated with this inappropriate action is as follows:

The SNSS reviewed the ECG description of an ALERT and determined there was not an actual or potential substantial degradation of the plant safety level. Therefore, he concluded that because the plant was in a defueled condition an ALERT was not warranted. The ECG required declaring an ALERT independent of operational mode.

(2) The corrective steps that have been taken.

1. The Senior Nuclear Shift Supervisor who failed to declare the ALERT was counseled for his actions, in accordance with the PSE&G disciplinary process. The individual has since chosen to leave PSE&G.
2. This event was discussed with Salem Senior Nuclear Shift Supervisors. During the discussions, the proper use of the Salem Emergency Classification Guide was stressed. These expectations were also reinforced at the February 1, 1996, Senior Nuclear Shift Supervisor meeting.

(3) The corrective steps that will be taken to avoid further violations.

1. Proper use of the Salem Emergency Classification Guides and lessons learned from this event and selected previous events will be reviewed and emphasized during the operator training sessions that are scheduled to support restart of the units.
2. The Emergency Preparedness continuing training program for Operations Department shift personnel will be evaluated, and improvements will be implemented as necessary. Identified improvements will be in place by December 31, 1996.

(4) The Date when full compliance will be achieved.

PSE&G achieved full compliance when the alert was declared on October 5 at 01:38.

- II. 10 CFR 50.54(q) requires, in part, "A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in appendix E of this part."

The licensee's NRC-approved Emergency Plan, Section 3, "Organization," Part 10.0, "Staffing Commitments" provides a commitment for minimum staffing in accordance with Supplement 1 of NUREG-0737, Table 2. Tables 3.1 and 3.2 of Emergency Plan, Section 3, details licensee staffing commitments by position. Specifically, these tables denote that the emergency response organization would be augmented by at least one electrical engineer and one mechanical engineer within about 1 hour. Contrary to the above, on October 5, 1995, some emergency response organization positions were not staffed within about 1 hour. The electrical engineer and mechanical engineer emergency response organization positions were not filled in the technical support center by fully qualified emergency response organization personnel until about 2 hours after the alert declaration.

This is a Severity Level IV violation (Supplement VIII).

PSE&G concurs with the violation.

(1) The reason for the violation.

The root cause of this event was inadequate management oversight of the emergency preparedness function.

Causal factors identified which contributed to this violation are:

1. Management's expectations to staff the Technical Support Center (TSC) within approximately one hour after notification were not well communicated or understood by all emergency response personnel.
2. Emergency Planning drills were not structured to test the responsiveness of emergency response personnel to callout situations.
3. There was no selection criterion for personnel on the emergency response teams to assure the ability to staff the TSC in a timely fashion.

(2) The corrective steps that have been taken.

1. On October 26, 1995, the Senior Vice President - Nuclear Operations issued a letter delineating the roles, responsibilities and expectations to the entire emergency response organization.
2. This letter has been included in the handout package provided to new emergency response pager holders. Increased management support has significantly reinforced expectations of roles and responsibilities to emergency responders.
3. The quarterly pager test methodology has been revised and tests are being conducted on a more frequent basis of at least once a month.
4. A response callout accountability form has been developed and will continue to be sent to the managers or supervisors of emergency response personnel who do not respond appropriately to a pager test. This action will hold the individual and his manager/supervisor accountable for failure to meet expectations.
5. Unannounced off-hours mustering drills are currently being conducted quarterly. These drills reinforced the expectation of timely response and are also used to test and evaluate individual responses and call-out system operations.

(3) The corrective steps that will be taken to avoid further violations.

1. Emergency Preparedness is developing a self assessment program which will include evaluating and measuring the ability of the Emergency Response Organization (ERO) to activate facilities in a timely manner. This self assessment program will be completed by May 10, 1996.
2. A Duty Roster System for essential ERO members is being implemented. It will define expected actions concerning assignments, duty expectations and response times for both essential and non-essential members of the Emergency Response Organization. This Duty Roster system will assure the ability to staff the TSC in a timely fashion as described in the PSE&G Emergency Plan. The Duty Roster system will be completed by March 31, 1996.
3. Ongoing off-hours mustering drills will be utilized to assess the effectiveness of the ERO response and to refine the process as needed.

(4) The Date when full compliance will be achieved.

PSE&G achieved full compliance when the TSC was fully
staffed at 04:00 on October 5, 1995.

III. 10 CFR 50.54(q) requires, in part, "A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in appendix E of this part."

10 CFR 50, Appendix E, Section IV, Content of Emergency Plans, Subpart B, Assessment Actions requires, in part, "These emergency action levels shall be discussed and agreed on by the applicant and State and local governmental authorities and approved by the NRC."

Contrary to the above, the licensee failed to discuss and seek agreement with the State of New Jersey prior to implementing a revision to their emergency action level scheme on October 7, 1995.

This is a Severity Level IV violation (Supplement VIII).

PSE&G concurs with the violation.

(1) The reason for the violation.

The root cause of this violation was a misinterpretation of 10 CFR 50.54 (q) and 10 CFR 50 Appendix E. PSE&G mistakenly believed that the annual training and reviews associated with the preparation and submittal of the NUMARC Emergency Action Levels (EALs) were adequate to allow for the revision of the EAL associated with the Loss of Annunciation.

(2) The corrective steps that have been taken.

1. PSE&G conducted NUMARC EAL training with the BNE staff. This training was conducted on November 29, 1995.
2. PSE&G is conducting team building sessions with BNE management and staff in order to improve communications.
3. PSE&G, in cooperation with the New Jersey Bureau of Nuclear Engineering (BNE), has developed an EAL Review Form to be used for submittal of EAL changes and to document agreement/disagreement with proposed revision.

(3) The corrective steps that will be taken to avoid further violations.

1. PSE&G is revising its procedure to require State and Local officials to review and agree on any EAL changes prior to implementation. This procedure will be revised by March 31, 1996.

(4) The Date when full compliance will be achieved.

PSE&G will achieve full compliance when the State of New Jersey (BNE) agrees with the proposed EAL changes.

- IV. 10 CFR 50.47(b)(8) requires that "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."

The Emergency Classification Guide (ECG), Section 10, "Loss of Instrumentation/ Annunciation/ Communications," requires an alert declaration if "Loss of most or all (>75%) Overhead Annunciators, (excluding a scheduled test or maintenance activity for which pre-planned compensatory measures have been implemented) and 15 minutes have elapsed since the loss of annunciators."

Contrary to the above, on October 4-5, 1995, the control room emergency response facility equipment provided was not adequate to support the emergency response, in that design deficiencies existed in the overhead annunciator system equipment that resulted in inadequate support of the emergency classification and action level scheme. Additionally, the design deficiencies were not detected and/or indicated by the overhead annunciator equipment tests in such a manner that the loss of most or all (>75%) overhead annunciators could be determined by the operators and therefore support an alert declaration. This violation applies to both Salem Unit 1 and Unit 2, since the overhead annunciator equipment is identical for both units.

This is a Severity Level IV violation (Supplement VIII).

PSE&G concurs with the violation.

(1) The reason for the violation.

The root causes of this violation are:

- 1) An initiating event occurred which caused a critical task to abort. This failure caused the system not to process new alarms.
- 2) Inadequate management oversight of the corrective action process.

(2) The corrective steps that have been taken.

1. The OHA system operating and abnormal procedures were revised. The revised procedures provides better technical guidance to the operator to rapidly test the annunciator system to determine operability.

2. In accordance with the Operability Determination procedure, a manual test, to simulate an incoming alarm, tests the system's primary function to annunciate and process incoming change-of-state alarms, thus verifying continued operability of the system.
 3. The 18-month system functional test (preventive maintenance procedure) was completed.
 4. Three Sequence of Event Recorder (SER) power supplies (+5 VDC) were replaced.
 5. The SER main chassis BETA 4100R backplane was replaced with a newly purchased and tested printed circuit board (PCB). The PCB was purchased with augmented Quality Assurance.
 6. A new Corrective Action Program (CAP) has been implemented to communicate NBU management expectations on timely problem identification and resolution. The CAP also provides clear definition of roles and responsibilities. The current CAP establishes a low threshold for reporting problems, provides aggressive problem assessment/root cause determination expectations and places management in charge of root cause and corrective action completion times. Results to-date indicate that personnel are not hesitant to raise issues through the process.
 7. A new element incorporated under the CAP improvement area, is the Operational Experience Feedback (OEF) Program. Improvements to the OEF process itself included the establishment of well defined roles and responsibilities, and standards of performance for implementing organizations. Performance measures have been established to allow NBU management to monitor program effectiveness and assign accountability if performance standards are not satisfied. These changes were made in order to better integrate the OEF program into the operation of the stations.
- (3) The corrective steps that will be taken to avoid further violations.**
1. The OHA system software/firmware will be replaced prior to the respective Unit's restart. Quality will be assured through a modified Critical Digital Review of task structure, data structure, hardware and code. A factory acceptance test will be performed at the vendor facility.
 2. A permanent modification will install an auto tester on the OHA system that will simulate an alarm and verify that the OHA system continues to process the alarm.

This modification will take the place of the control room operator manually performing the test periodically on both Salem plants. This modification will be completed prior to the Unit's restart.

3. A design change will be pursued to replace the present OHA system with a new system following the Unit's restart.

(4) The Date when full compliance will be achieved.

PSE&G will achieve full compliance prior to the restart of the units, when the autotester modification will be installed.