APPENDIX A

NOTICE OF VIOLATION

Public Service Electric and Gas Company	Docket Nos:	50-272
Salem Nuclear Generating Station		50-311
Units 1 and 2	License Nos:	DPR-70
		DPR-75

During an NRC inspection conducted between May 19 and June 29, 1996, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

A. Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained to control safety-related maintenance, surveillance tests, and onsite electrical system operation.

1. Nuclear Procedure NC.NA-AP.ZZ-0001(Q), Revision 7, *Nuclear Procedure System*, step 5.3.2 requires that if a procedure does not exist for an activity that requires significant coordination between work groups or involves maintenance of safety related equipment for which operators or technicians have not been trained, the activity should be delayed until a procedure has been developed and approved.

   Contrary to the above, on June 13, 1996, a procedure did not exist for post-maintenance testing of safety related relays on the no. 2B emergency diesel generator, an activity that required significant coordination between operators, technicians and planners, and an activity for which the technician had not been trained, and technicians performed the activities without a developed and approved procedure.

2. Salem Procedure SC.OP-SO.13-14, Revision 9, *4, 14, and 23 Station Power Transformers Operation*, Step 5.3.11 requires equipment operators to close the control power switch after racking up a 13 kv breaker.

   Contrary to the above, on June 5, 1996, Salem Unit 2 equipment operators did not close the control power switch after they racked up the no. 23 station power transformer D-E 13 kv breaker.

3. Nuclear Procedure NC.NA-AP.ZZ-0001, Revision 7, *Nuclear Procedure System*, step 5.3.7.F requires that if an implementing procedure step is not specifically identified in the procedure as conditional, the reason for not performing the step should be explained in the comments section of the procedure.

   Contrary to the above, on May 31, 1996, maintenance technicians did not perform numerous steps of SC.MD-EU-SW-0002, Revision 5, *Johnston Service Water Pump Removal and Installation*, not

The apparent cause for this violation was a lack of guidance by Maintenance Management concerning the level of detail that should be contained on the work order activity "D" sheet.

(2) The corrective steps that have been taken.

1. Concerning instructions for PMTs, on an as needed basis based on PMT complexity, the following or similar statement will be added to the "D" sheet.

   " POST MAINTENANCE TESTING " PMT " REQUIREMENTS:

   The following are suggested steps for performance of PMT. These steps do not constitute a procedure and are not to be used as such, nor are these steps to be used in place of a procedure. If the suggested PMT steps are deemed "too complex" or "beyond skill of craft" then applicable procedures, such as SC.IC-GP.ZZ-0006(Q), shall be utilized to facilitate proper control of post maintenance testing. Although these instructions are only for information, if the instructions are found to be incorrect or inadequate contact planning to make corrections." The attachment to SC.IC-GP.ZZ-0006(Q) used for the PMT instructions is reviewed and approved by the Operations SNSS/NSS and NCO and a Maintenance Supervisor.

   This corrective action will remain in place until corrective action number 1 below is implemented.

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

1. Procedure NC.NA-AP.ZZ-0050(Q), Station Testing Program, is undergoing an extensive review to resolve the concerns identified in PR 960502102, Programmatic Weakness For RT & PMT Testing. The corrective actions include Revising NC.NA-AP.ZZ-0050(Q) and providing the Planners and Supervisors with appropriate training prior to restart.

2. Additional corrective actions are discussed in the cover letter.

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

Full compliance was achieved when the activity was satisfactorily completed.

2. Salem Procedure SC.OP-SO.13-14, Revision 9, 4, 14, and 23 Station Power Transformers Operation, Step 5.3.11 requires equipment operators to close the control power switch after racking up a 13 kv breaker.

   Contrary to the above, on June 5, 1996, Salem Unit 2 equipment operators did not close the control power switch after they racked up the no. 23 station power transformer D-E 13 kv breaker.

PSE&G concurs with this violation

(1) The reason for the violation.

On June 6, 1996, Operations Department personnel failed to use appropriate procedures, while returning the 13KV D-E breaker to service to provide a second source of offsite power to the Unit 2 vital buses. Specifically, operators failed to turn the control power breaker on, which would have allowed the breaker to be operated remotely from the control room. The control breaker was subsequently closed in accordance with procedure SC.OP-SO.13-0001(Z) "13 KV Breaker Operation".

Further investigation indicated that the Nuclear Shift Supervisor (NSS) did not demonstrate a questioning attitude in addressing the failure of a 13kv breaker to close. The apparent cause of this violation was attributed to personnel error - a lack of questioning attitude and reliance on job knowledge and experience rather than use of a procedure.

(2) The corrective steps that have been taken.

1. The individual involved in this event was disciplined in accordance with PSE&G policy.

2. Operations management communicated this event to operations personnel and re-emphasized expectations and requirements for procedure use.

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

1. Additional corrective actions are discussed in the cover letter.

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

Full compliance was achieved when the control breaker was subsequently closed in accordance with procedure SC.OP-SO.13-0001(Z) "13 KV Breaker Operation"

3. Nuclear Procedure NC.NA-AP.ZZ-0001, Revision 7, Nuclear Procedure System, step 5.3.7.F requires that if an implementing procedure step is not specifically identified in the procedure as conditional, the reason for not performing the step should be explained in the comments section of the procedure.

   Contrary to the above, on May 31, 1996, maintenance technicians did not perform numerous steps of SC.MD-EU-SW-0002, Revision 5, Johnston Service Water Pump Removal and Installation, not identified as conditional and failed to explain the reason for not performing the steps in the comments section of the procedure.

PSE&G concurs with this violation

(1) The reason for the violation.

The apparent causes for this violation were personnel error - inattention to detail and a reliance on personal knowledge instead of strict procedural controls.

While installing a Maloney kit (anti-corrosion sleeves for fasteners) technicians did not complete the step in proper sequence. The technicians temporarily installed the discharge flange without installing a Maloney kit, and the steps that were N/A'd were not explained in the comment section of the procedure.

In addition, the mechanics did not have the work order at the jobsite; the work order was kept in the staging trailer outside the work area.

(2) The corrective steps that have been taken.

1. The job was promptly stopped until the maintenance supervisor reviewed and adhered to the required procedures.

2. Maintenance managers conducted a meeting with personnel in the group to communicate circumstances of the problem, and to emphasize the importance of adherence to work standards and compliance with procedure requirements.

3. Individuals involved in this event were disciplined in accordance with PSE&G policy.

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

1. Additional corrective actions are discussed in the cover letter.

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

Full compliance was achieved when the work on No. 23 Service Water pump was stopped, and procedure requirement adherence issues were corrected, and the equipment was restored in accordance with procedures.

4. Salem Procedure SC.RP-ST.FHV-1140, Revision 0, Fuel handling Building Ventilation System Negative Pressure Test, step 5.2.7 requires that a qualified individual perform an independent verification of calculations.

   Contrary to the above, on May 10, 1996, technicians conducted SC.RP-ST.FHV-1140 and did not perform an independent verification of calculations.

PSE&G concurs with this violation.

(1) The reason for the violation.

On May 10, 1996 a system flow surveillance test was performed on the Unit 2 Fuel Handling Ventilation System. The required independent verification was not correctly performed on procedures SC.RP-ST.FHV-1140(Q) and SC.RP-ST.FHV-1141(Q), thus an error in the calculations for the negative pressure data was not identified. Although the error did not adversely affect the test results, it was not detected via the independent verification of calculations performed by the contractor.

The apparent cause for this violation was personnel error.

(2) The corrective steps that have been taken.

1. A review of calculations associated with the test was performed by Maintenance Engineering with no other mathematical discrepancies noted.

2. Radiation Protection (RP) management initiated a prompt investigation to review all RP owned Technical Specification surveillance procedures, and no other calculational errors were identified.

3. A Condition report has been initiated to determine the need to improve the quality of RP surveillance procedures, including upgrading the procedure use category.

4. The individual involved in this event was disciplined.

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

1. Additional corrective actions are discussed in the cover letter.

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

Full compliance was achieved following the independent review and correction of the calculation.

5. Salem Procedure NC.NA-AP.ZZ-0001(Q), Nuclear Procedure System, Section 5.3.7.D, states in part, steps identified with numbers or letters (i.e., 5.1.2 or 5.1.2.A) should be completed in order unless the procedure allows otherwise. Salem common procedure SC.MD-PM.DG-0002(Q), Revision 4, Diesel Generator Turbocharger Aftercooler Cleaning and Inspection, step 3.11, states that applicable steps within a procedure should be completed prior to starting the next section.

   Contrary to the above on June 26, 1996, technicians did not perform steps of SC.MD-PM.DG-0002(Q), Revision 4, Diesel Generator Turbocharger Aftercooler Cleaning and Inspection, in the order specified in the procedure. The technicians also performed steps in the 5.4 Reassembly/Installation section, prior to completing all the steps in section 5.2, without appropriate documentation.

PSE&G concurs with this violation.

(1) The reason for the violation.

The apparent cause for this violation was ineffective communication of required standards. A statement in the procedure that allowed applicable steps, as determined by the Supervisor, in a section to be completed prior to starting the next section, was misinterpreted. The Supervisor assumed that this allowed him the latitude and flexibility to skip steps and return to them as applicable to efficiently complete the work.

(2) The corrective steps that have been taken.

1. Continual training is being provided to Maintenance personnel on procedure compliance.

2. Procedure SC.MD-AP.ZZ-0006(Q) was issued (7/20/96) to provide clear guidance on use and understanding of procedures.

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

1. Additional corrective actions are discussed in the cover letter.

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

Full compliance was achieved when all required steps of the procedure were completed prior to restoration of the EDG.

B. 10 CFR 21.21(a) requires, in part, that licensees: "(1) Evaluate deviations and failures to comply to identify defects and failures to comply associated with substantial safety hazards as soon as practicable, and except as provided in paragraph (a)(2) of this section, in all cases within 60 days of discovery ... and (2) Ensure that if an evaluation of an identified deviation or failure to comply potentially associated with a substantial safety hazard cannot be completed within 60 days from discovery of the deviation or failure to comply, an interim report is prepared and submitted to the Commission ... This interim report must be submitted in writing within 60 days of discovery of the deviation or failure to comply."

Contrary to the above, the licensee failed to evaluate a deviation and failed to submit an interim report per 10 CFR 21 within 60 days of discovery. The deviation was the failure of six 4.16kV circuit breakers to latch closed upon a close signal. The licensee had documented the discovery of a deviation on March 15, 1996, however, did not report the breaker failures until June 27, 1996, as a 4-hour report under 10 CFR 50.72(b)(2)(iii)(a) and on July 1, 1996, as a Licensee Event Report under 10 CFR 50.73(a)(2)(v).

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

PSE&G concurs with the violation.

(1) The reason for the violation.

The apparent cause for this violation was a lack of communication between the engineering, operations and licensing organizations, as well as a failure of station procedures to adequately ensure evaluation of defects for 10 CFR 21 reportability.

On February 26, 1996, a detailed equipment root cause investigation was initiated due to the commonality of the failure modes associated with these breakers. The methodology for the investigation involved document reviews and actual breaker testing. A fault tree was developed that listed all known potential failure causes for the known symptoms. Timeliness were developed to ensure that the information was properly correlated and to assist in determining contributing factors associated with environment, refurbishment, overhaul, and age of the breakers.

The root cause investigation report was not completed until May 30, 1996. During the investigation, there were no discrete points in time where causes or contributing factors uniquely flagged the organization to revisit reportability of the overall problem. However, since there was a concern about waiting for final determination of root cause before alerting the industry about the problems at the station, a preliminary information was provided to the industry on March 15, 1996 as a message on the NUCLEAR NETWORK®, and this information was subsequently provided to the NRC.

It is understood at this time that the potential for common mode failure was known by the organization in the February-March time frame, although the failure modes and underlying causes did not clearly materialize until later.

(2) The corrective steps that have been taken.

1. An LER was prepared and submitted to the NRC on July 1, 1996. The Part 21 requirements were fulfilled by the issuance of the Licensee Event Report.

2. A Condition Report to determine the reasons for the late reporting has been generated and is under evaluation.

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

1. A determination of the reasons for the failure to recognize the need to issue an interim report, based on the potential for common cause failure, will be completed.

2. Changes to the station's administrative procedures will be made, as necessary, to ensure that the expectations for reporting potential deviations are clarified.

3. The training and qualification process of appropriate departments will be revised to require demonstrated understanding of Part 21 requirements, including determination of when a deviation becomes potentially reportable.

4. A review of in-process evaluations will be performed to verify there are no additional potentially reportable Part 21 items.

The above actions will be completed by December 31, 1996.

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

PSE&G became in full compliance on July 1, 1996, when the Part 21 reporting requirements were fulfilled by the issuance of the Licensee Event Report.

The following list all commitments and their associated due dates made by PSE&G in this letter - N96196.

1. Procedure NC.NA-AP.ZZ-0050(Q) Station Testing Program, is undergoing an extensive review to resolve the concerns identified in PR 960502102, Programmatic Weakness For RT & PMT Testing. The corrective actions include Revising NC.NA-AP.ZZ-0050(Q) and providing the Planners and Supervisors with appropriate training prior to restart.

2. A determination of the reasons for the failure to recognize the need to issue an interim report, based on the potential for common cause failure, will be completed.

3. Changes to the station's administrative procedures will be made, as necessary, to ensure that the expectations for reporting potential deviations are clarified.

4. The training and qualification process will of appropriate departments will be revised to require demonstrated understanding of Part 21 requirements, including determination of when a deviation becomes potentially reportable.

5. A review of in-process evaluations will be performed to verify there are no additional potentially reportable Part 21 items.

Corrective actions 2 through 5 above will be completed by December 31, 1996.