

Public Service  
Electric and Gas  
Company

Joseph J. Hagan

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1200

Vice President - Nuclear Operations

DEC 01 1993

NLR-N93192

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

Gentlemen:

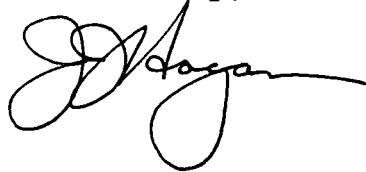
RESPONSE TO NRC NOTICE OF VIOLATION  
INSPECTION REPORT 50-272/93-21; 50-311/93-21  
DOCKET NOS. 50-272; 50-311

Public Service Electric and Gas (PSE&G) has received the NRC  
Inspection Report 50-272/93-21; 50-311/93-21, dated November 3,  
1993. Within the scope of this report, a Salem Unit 1 Technical  
Specification Action Statement 3.3.2.1 violation was identified.

Accordingly, in the attachment to this letter, PSE&G submits its  
assessment and response to the identified violation.

Should you have any questions regarding this transmittal, please  
do not hesitate to contact us.

Sincerely,



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Attachment (1)

C Mr. J. C. Stone, Licensing Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Mr. C. S. Marschall (S09)  
USNRC Senior Resident Inspector

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

Mr. Kent Tosch, Manager, VI  
New Jersey Department of Environmental Protection  
Division of Environmental Quality  
Bureau of Nuclear Engineering  
CN 415  
Trenton, NJ 08625

REF: NLR-N93192

STATE OF NEW JERSEY )  
 ) SS.  
COUNTY OF SALEM )

J. J. Hagan, being duly sworn according to law deposes and says:  
I am Vice President - Nuclear Operations of Public Service  
Electric and Gas Company, and as such, I find the matters set  
forth in the above referenced letter, concerning the Salem  
Generating Station, Unit Nos. 1 and 2, are true to the best of my  
knowledge, information and belief.

J. J. Hagan

Subscribed and Sworn to before me  
this 1st day of December, 1993

Kimberly Jo Brown  
Notary Public of New Jersey

My Commission expires on \_\_\_\_\_

KIMBERLY JO BROWN  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 21, 1998

## ATTACHMENT I

During an NRC inspection conducted on September 5 - October 16, 1993, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1992), the violation is listed below:

Salem Unit 1 Technical Specification (TS) Action Statement 3.3.2.1 requires that when an Engineered Safety Feature Actuation system instrumentation channel is inoperable, the Action shown in Table 3.3-3 of the TS must be taken. Table 3.3-3 specifies that when an automatic actuation logic channel for the safety injection, turbine trip and feedwater isolation function is inoperable, the inoperable channel must be restored to an operable status within six hours or the plant must be in Hot Standby within the next six hours and in Cold Shutdown within the following 30 hours. Contrary to the above, at 5:30 a.m. on July 11, 1993, the Solid State Protection System Train B Feedwater Isolation Circuit at Salem Unit 1 failed a surveillance test, the failed channel was not subsequently restored to an operable status, and it was not until approximately 12 hours after the test failure that unit operators initiated a plant shutdown due to the inoperable channel. This is a Severity Level IV violation (Supplement 1).

Pursuant to the provisions of 10 CFR 2.201, Public Service Electric and Gas Company is hereby required to submit to this office within 30 days of the date of the letter which transmitted this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved.

NLR-N93192

**PSE&G RESPONSE**

PSE&G does not dispute the violation

**ROOT CAUSE**

On July 11, 1993, operators were testing the Slave Relay K601 (Safety Injection circuit) in the "B" train of the Solid State Protection System (SSPS), using surveillance procedure S1.OP-ST.SSP-0010. During the performance of this surveillance, operations personnel stopped slave relay testing when a problem occurred in obtaining a test meter reading. Based upon an initial print review and past test circuit problems, operators believed that the problem was in the test circuit portion of the output relay.

The SSPS system was not declared inoperable at this time, as the test circuit is independent of the normal SSPS function, and a work order was initiated to investigate the problem. Later on this date, operations shift personnel were informed that the test circuit had not failed and that the surveillance results showed an SSPS circuit failure.

The SSPS (train B) was declared inoperable and the appropriate action statement was entered. Train "A" remained operable for the period such that full protection was available.

The initial operability determination was based upon the Senior Reactor Operator's (SRO) technical knowledge, past experience, and review of available technical information. However, PSE&G's management review determined that the operability determination of the SSPS slave relay was not accurately diagnosed on July 11, 1993. Additionally, PSE&G management noted that the SSPS action statement requirements, and the onset of initial troubleshooting were not commenced until the six hour action statement period had expired. Management determined that the initiation of troubleshooting was delayed inappropriately.

It is PSE&G's management expectation that system operability and timely pursuit of problem identification and resolution must be commensurate with the potential safety significance of the issue.

The root cause of this event has been attributed to lack of appropriate oversight regarding the initiation of the troubleshooting activities. The review determined that the SSPS troubleshooting activities delay was inappropriate when considering the importance of the system and the short Technical Specification action statement requirement.

**CORRECTIVE ACTIONS TAKEN AND THE RESULTS ACHIEVED**

**1. Operations Department Management:**

Reviewed the circumstances surrounding this event with the personnel involved and all other licensed operations personnel during requalification training.

Initiated SSPS surveillance procedure reviews and revision to direct attention to technical specification action statements when system performance is either deficient or operability is questionable. The procedures were revised to require that the system be declared inoperable when any deviation from the expected reading is obtained. Additionally, an Instrument & Control technician will be present at all times during system testing.

Via the Night Order Book, issued instructions to all operating personnel regarding the appropriate action statement entry, including instruction to enter the SSPS action statement whenever abnormal readings are encountered during system tests.

**2. Positive disciplinary action has been taken with the appropriate personnel.**

**CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS**

PSE&G management strongly re-emphasized its expectation of taking timely corrective actions, specifically when dealing with Technical Specification systems or equipment. PSE&G believes that adequate controls are now in place to address prompt and timely resolution of operability issues.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

PSE&G is in full compliance.

Public Service  
Electric and Gas  
Company

Joseph J. Hagan

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Vice President - Nuclear Operations

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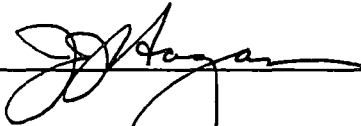
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