Public Service
Electric and Gas
Company

Joseph J. Hagan
Vice President - Nuclear Operations

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

APR 0 8 1994

NLR-N94063

James Lieberman, Director
Office of Enforcement
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk,
Washington, D.C. 20555

Gentlemen:

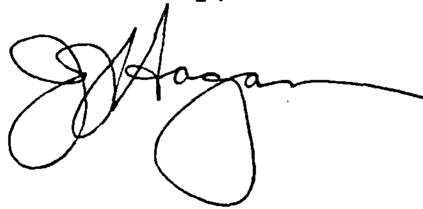
RESPONSE TO NRC'S NOTICE OF VIOLATION AND
PROPOSED IMPOSITION OF CIVIL PENALTY
INSPECTION REPORT 50-272/93-23; 50-311/93-23
DOCKET NOS. 50-272; 50-311

Attached is Public Service Electric and Gas (PSE&G) response to the Notice of Violation and Proposed Imposition of Civil Penalty which resulted from NRC Inspection Report 50-272/93-23, 50-311/93-23, dated February 10, 1994. Attachment I and II of this letter contains the eight events cited by the NRC in its Notice of Violation and PSE&G's response to it.

PSE&G does not dispute the violation, nor does it elect to request mitigation of the proposed civil penalty. An electronic transfer of funds payable to the Treasurer of the United States in the amount of the proposed civil penalty has been made on April 8, 1994.

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

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

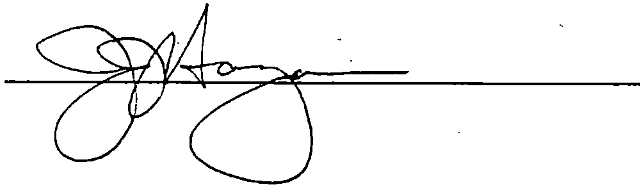
Mr. T. T. Martin, Administrator - Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

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-N94063

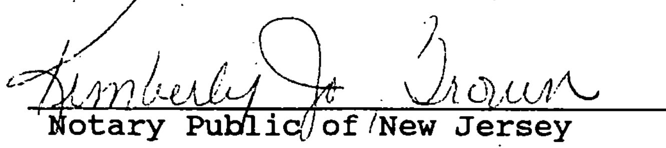
STATE OF NEW JERSEY )
) SS.
COUNTY OF SALEM )

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.



Subscribed and Sworn to before me

this 8th day of April, 1994



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

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

During an NRC inspection conducted from October 17 through November 27, 1993, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

Salem Technical Specification 6.8. I.a requires that procedures be established, implemented and maintained, covering the activities as described in the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Appendix A specifies, in part, that procedures be written for equipment control (e.g., locking and tagging), for the control of maintenance, and for the control of radioactivity.

1 . Nuclear Administrative Procedure NC.NA-AP.ZZ-0015(Q), (NAP-15), "Safety Tagging Program," Step 4. 1, requires that the job supervisor ensure that equipment has been appropriately tagged and is safe to work on before beginning a work activity.

Contrary to the above, on October 12, 1993, a contract employee conducted maintenance on a breaker for an electro-hydraulic pump without the job supervisor ensuring equipment was first appropriately tagged out and safe to work on. (01013)

2. NAP-15, Step 5.4.5.b.6, requires that vents and drains within the tagging boundary be verified in the proper position for equipment operation prior to releasing tags.

Contrary to the above, on October 22, 1993, an equipment operator removed tags related to maintenance on a bleed steam coil drain tank pump without verification that vents and drains within the tagging boundary were in the proper position for equipment operation prior to releasing the tag. (01023)

3. NAP-15, Step 5.4.5.c, requires that operators release tags and reposition mechanical components in accordance with the Tagging Release Worksheet.

Contrary to the above, on October 29, 1993, an operator released from a valve a tag not specified on the Tagging Release Worksheet and repositioned the valve while maintenance was in progress on a downstream valve. (01033)

4. NAP-15, Step 5.1.8, requires job supervisors with personnel working on tagged equipment under their supervision, to tag that equipment in their name or in accordance with a Group Tagging Request.

Contrary to the above, on October 31, 1993, a job supervisor, with personnel working on tagged equipment under his supervision, failed to ensure that a 125 VDC breaker was properly tagged out of service and controlled in his name or in accordance with a Group Tagging Request to support work on an associated cable, resulting in an electrician cutting into the energized cable. (01043)

5. Nuclear Administrative Procedure NC.NA-AP.ZZ-0009(Q) (NAP-9), "Work Control Process," Step 2. 0, requires that the work control process be applied when work is performed on Q-rated components, systems and plant structures at the facility.

Contrary to the above, on October 8, 1993, licensee personnel performing modification work on the auxiliary feedwater system, a Q-rated system, removed spare positioner cams from a system control valve without the work control process being applied, in that a work order was not issued. (01053)

6. NAP-9, Step 5.7.2, requires that an individual performing work shall perform the work in accordance with the instructions included in the work package.

Contrary to the above, on November 4, 1993, Salem maintenance personnel did not perform work on a service water inlet isolation valve (No. 23SW58) in accordance with the instructions included in the work package. Specifically, they performed the work in accordance with an unapproved vendor technical manual which had not been included as part of the approved work package. (01063)

7. NAP-9, Step 5.1.5.a, requires that any maintenance that can affect the performance of Q-rated equipment be performed in accordance with approved written instructions.

Contrary to the above, on November 9, 1993, during the Unit I outage, work was performed on Q-rated equipment without the use of approved written instructions. Specifically, contract workers performed wiring changes on a fuel pit heat exchanger motor operated valve without approved written procedures. (01073)

8. Salem Radiation Protection/Chemistry Procedure SC.RP-TI.ZZ-0209(Q), "Release Of Items From The Radiologically Controlled Area (RCA)," Step 5.1.3, requires that items released from RCA access points be recorded in an active RCA Free Release Log.

Contrary to the above, on November 4, 1993, when maintenance personnel removed service water system valve 23SW58, the inlet isolation valve to the No. 23 containment fan coil unit, from the system and subsequently from the RCA access points, the Radiation Protection Department did not document the free release of the valve from the RCA. (01083)

This is a Severity Level III problem (Supplement I).
Cumulative Civil Penalty - $50,000

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ATTACHMENT II

**PSE&G RESPONSE**

On February 1, 1994, PSE&G management and Nuclear Regulatory Commission (NRC) personnel met at King of Prussia, Pennsylvania, to discuss the cited events. As discussed and acknowledged at the meeting, PSE&G does not the dispute the violation.

**ROOT CAUSE**

PSE&G reviewed and assessed all of the events identified in the Notice of Violation. The results are presented below.

Collectively the identified eight (8) incidents were found to fall into two categories; (A) Tagging, and (B) Work control. On a collective basis and from a management perspective, the amount and type of work scheduled during the Salem Unit 1 eleventh refueling outage was aggressive. Although all major work involving improvements to reliability and plant safety were accomplished safely and without incidents, other activities were not given the same attention. Consequently, the large scope of complex work resulted in; (1) insufficient management/supervisory oversight, (2) lack of holding people accountable, and (3) self imposed schedule pressure (resulting in lack of self-checking), which led and/or contributed to the events.

These events were reviewed and assessed utilizing the INPO Human Performance Causal Factor Analysis. The primary causal factors identified for these events, both collectively as stated above, and individually, are comparable to the Comprehensive Performance Assessment Team (CPAT) problem statements. The three (3) major causal factor categories are;

(1) Less than adequate supervisory methods
- o insufficient management/supervisory oversight

(2) Less than adequate verbal communications

(3) Less than adequate work practices
- o Failure to follow procedures
- o self checking

**CORRECTIVE ACTIONS TAKEN**

PSE&G believes that the process to control work in the field, as established by NC.NA-AP.ZZ-0009(Q) "Work Control Process", NC.NA-AP.ZZ-0069 (Q) "Work Control Coordination", and NC.NA-AP.ZZ-0015 (Q) "Safety Tagging Program", is appropriately defined and works. However, as stated earlier the scope established for the eleventh refueling outage was aggressive, and taxed management's ability to provide field oversight.

Although, none of these events significantly affected plant safety, the corrective actions described below address PSE&G's work control process and other related causal factors.

Based on specific events, management expectations were reinforced as appropriate. e.g.;

1. Due to management's concern a temporary outage work stoppage was mandated. Management utilized this opportunity to communicate its expectations with regard to safety and work standards.

2. Meetings were held with all contractor supervision and craft personnel focusing on PSE&G's expectations on safety and adherence to work standards.

3. An Operations Directive was issued to re-emphasized the proper sequence of tagging releases.

4. Radiation protection technicians were refocused in the requirements of SC.RP-TI.ZZ-0209(Q), "Release Of Items From The Radiologically Controlled Area (RCA)."

PSE&G has established a middle management review group to review and assess all troubleshooting dealing with electrical and instrumentation and control activities. Personnel assigned to this review are on-shift, and will remain assigned until sufficient improvement has been accomplished in the quality of the troubleshooting effort.

When applicable, immediate appropriate corrective actions were taken with personnel involved .

## CORRECTIVE ACTIONS TAKEN TO PREVENT REOCCURRENCE

PSE&G management is refocusing its attention to improve the work control process. The following corrective actions were and are being taken to address the broader issues as identified by PSE&G own assessment.

The Vice-President - Nuclear Operation communicated his expectation that supervisory/managerial personnel increase the field time spent monitoring and assessing work, providing direction, and taking appropriate corrective actions when necessary. Also PSE&G is reinforcing field observation skills with all supervisors.

PSE&G is carefully reviewing the scope of future outages to ensure that the Station infrastructure required to support outage scope is sufficient to preclude undue schedular pressures and to ensure adequate management oversight.

PSE&G plans to decrease the number of Plant Betterment & Maintenance (PB&M) contractors from 3 to 2, which will provide for stronger PSE&G oversight. In addition, craft supervision will arrive on site in advance of the outage to review and familiarize themselves with complex installation packages. All craft personnel will receive additional training in PSE&G's safety tagging program.

PSE&G is improving the focus of the Station Planning organization by establishing separate Station Planning groups for Unit 1 and Unit 2. Further improvement will be achieved by establishing separate Work Control Centers for each unit. The Work Control Centers are expected to be in place by end of 1996.

PSE&G has established a Work Control High Impact Team. The main purpose of this team is to;

1. Review pre-outage work process. This review encompasses work package printing and reviews, tagging identification and staging.

2. Review the outage work control process. Specifically, the process for identifying the control and issuance of emergent work, control and approval of deferred activities, work packages close out, tagging, and status scheduling updates.

3. Review incidents of previous outages as they relate to the work standards, contractor control and work control process in general for lessons learned.

The corrective actions stated above, both short and long term, provide for a better focused organization to oversee planned activities and emergent work. Additionally, PSE&G management will be able to assess its corrective actions' implementation via the field observation results, and the tracking and trending of personal error incident reports related to work control.

**Date when full compliance will be achieved**

All of the events and their associated root causes are understood by PSE&G, and appropriate corrective actions were and are being taken.

PSE&G is in full compliance