

Public Service
Electric and Gas
Company

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NOV 18 1996

LR-N96352

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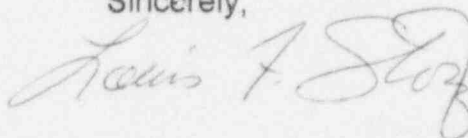
Gentlemen:

**REPLY TO A NOTICE OF VIOLATION
INSPECTION REPORT NO. 50-354/96-07
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NPF-57
DOCKET NO. 50-354**

Pursuant to the provisions of 10CFR2.201, this letter submits the response of Public Service Electric and Gas Company (PSE&G) to the notice of violation (NOV) issued to the Hope Creek Generating Station in Inspection Report 50-354/96-07 dated October 18, 1996. The details of the reply to the NOV are contained in Attachment 1.

Should you have any questions or comments on this transmittal, do not hesitate to contact us.

Sincerely,



Attachment

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**ATTACHMENT 1
REPLY TO NOTICE OF VIOLATION**

**INSPECTION REPORT NO. 50-354/96-07
HOPE CREEK GENERATING STATION
DOCKET NO. 50-354**

LR-N96352

I. INTRODUCTION

During an NRC inspection conducted between August 4, 1996 and September 21, 1996, two violations of NRC requirements were identified. As a result, the NRC issued a notice of violation (NOV) in a letter dated October 18, 1996. This response addresses these violations.

In accordance with the provisions of 10CFR2.201, Public Service Electric and Gas Company (PSE&G) hereby submits a written response to the NOV that includes: (1) the reason for the violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved.

II. REPLY TO THE NOTICE OF VIOLATION

VIOLATION A(i)

1. Description of the Notice of Violation

"10 CFR 50.59 requires in part, that the holder of a license authorizing operation of a production facility may make changes in the facility as described in the safety analysis report unless the proposed change involves a change in the technical specifications or an unreviewed safety question.

Contrary to the above, on September 21, 1996, two examples of changes implemented by the licensee were identified that involved failures to appropriately evaluate whether the proposed changes involved changes to technical specifications or unreviewed safety questions, including:

- (i) On August 13, 1996, the licensee "blocked" open a turbine auxiliaries cooling system supply isolation valve (1EGHV-2522E) described by the safety analysis report to automatically close in response to system low pressure signals.

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

2. Response to Notice of Violation

PSE&G has reviewed the circumstances described by the NRC and concurs with the facts cited in the NOV.

a. Description of Event

The Safety and Turbine Auxiliaries Cooling System (STACS) is a closed loop cooling water system consisting of two subsystems: the two loop redundant Safety Auxiliary Cooling System (SACS) and the single loop Turbine Auxiliary Cooling System (TACS). The system is designed to respond to various accident and transient conditions. The SACS and TACS are separated by five pairs of valves which operate in response to system logic to split the SACS loops and to isolate TACS from SACS.

The SACS is protected against the effects of pipe breaks in the TACS by hydropneumatic accumulators. Pressure sensors in the TACS will close valves 1EGHV-2522E and F upon indication of a line break. These two valves are 30" butterfly valves with dual speed hydraulic operators. Their closure rate is designed to protect the accumulators from draining below the inlet/outlet nozzle level even if the water in the accumulator is initially at the low level.

The TACS has no safety related function. Failure of the system does not compromise any safety related system or component, nor does it prevent a safe shutdown of the plant. In the event of a Loss of Coolant Accident (LOCA), Loss of Off-site Power (LOP), or a large TACS leakage, TACS is isolated from the SACS by the closure of the TACS loop isolation valves at the discharge and return sides to the redundant SACS loops.

On August 13, 1996, operations received several alarms due to TACS isolation valve 1EGHV-2522E low hydraulic accumulator pressure. The low pressure alarm was due to a small nitrogen leak from the accumulator. This was discussed at the morning managers' meeting with the Senior Nuclear Shift Supervisor. The need to block the valves was discussed as was the need to review the licensing and design bases for

the valves. At approximately the same time, the reactor operators in the control room received another alarm.

In accordance with the alarm response procedure, the operating shift then entered abnormal operating procedure HC.OP-AB.ZZ-0148(Q), Revision 2, "Turbine Auxiliaries Cooling System Malfunction". Step 4.1 of that procedure states: "If TACS ISLN VLVS HV-2522E and HV-2522F close attempt to reopen (PB depressed will maintain valves in open position)." 1EGHV-2522E was consequently failed open manually by the operator by operating local valves to direct hydraulic pressure to the open side of the valve operator to prevent a loss of TACS system flow. An Operator Aid posted on valve 1EGHV-2522E provides guidance to the operator on how to manually open the valve.

The abnormal procedure step relied upon by the operator to fail open the 1EGHV-2522E valve had been included in Revision 0 of the procedure issued in 1985. A 10 CFR 50.59 Safety Evaluation to evaluate blocking the valves in the open position was not performed.

b. Reason for Violation

Failing open 1EGHV-2522E was not in accordance with the abnormal operating procedure. However, operating crews have routinely been trained to fail open the 1EGHV-2522E and F valves to avoid a loss of TACS in simulator training. It has been determined that this practice had been reinforced through training drills since approximately 1985 and had been observed by Operations management in the simulator. Our investigation has also found two other occasions when these valves had been blocked open.

The principal causes for this violation were: incorrect implementation of procedure requirements by operators; and inadequate knowledge of the design and licensing basis of the 1EGHV-2522E and F valves.

c. Corrective Steps That Have Been Taken and Results Achieved

- i. An interim corrective action letter was issued to operating crews to explain the design basis and safety function of the 1EGHV- 2522E and F valves and to make clear that the current abnormal operating procedure does not include manually blocking open the valves.
- ii. Abnormal operating procedures were reviewed to identify potential similar occurrences in which equipment is positioned in other than the normal for the purpose of mitigating or preventing a transient to assure that procedural guidance is consistent with expected response. No similar occurrences were found.

d. Corrective Steps That Will Be Taken to Avoid Further Violations

- i. Procedure HC.OP-AB.ZZ-0148(Q) will be revised to provide specific guidance for controlling the response of 1EGHV-2522E and F. A 10 CFR 50.59 Safety Evaluation will be performed for the procedure revision. This activity will be completed by December 13, 1996.
- ii. Operator training will be revised to incorporate lessons learned from this event and the design and licensing basis for 1EGHV-2522E and F. This activity will be completed by December 16, 1996.
- iii. A sample of operations procedures will be reviewed in their entirety for conformance to the UFSAR. This activity will be completed by January 6, 1997.
- iv. Investigation of personnel performance and delivery of appropriate corrective measures will be completed by December 2, 1996.
- v. The Operations department will restate procedural use and adherence expectations. This activity will be completed by December 2, 1996.
- vi. Operations management will complete tabletop discussions with operating crews on procedure use and the need to hold the organization accountable for equipment reliability. This NOV will

be used as the case study for the tabletop. This activity will be completed by January 1, 1997.

e. Date When Full Compliance Will Be Achieved

Full compliance was achieved on August 13, 1996 when valve 1EGHV-2522E was restored to its normal configuration.

VIOLATION A(ii)

1. Description of the Notice of Violation

"10 CFR 50.59 requires in part, that the holder of a license authorizing operation of a production facility may make changes in the facility as described in the safety analysis report unless the proposed change involves a change in the technical specifications or an unreviewed safety question.

Contrary to the above, on September 21, 1996, two examples of changes implemented by the licensee were identified that involved failures to appropriately evaluate whether the proposed changes involved changes to technical specifications or unreviewed safety questions, including:

- (ii) On September 10, 1996, the licensee placed non-safety related closed circuit television camera cables over and in close proximity to safety related cable trays and conduit.

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

2. Response to Notice of Violation

PSE&G has reviewed the circumstances described by the NRC and concurs with the facts cited in the NOV.

a. Description of Event

On September 9, 1996 procedure HC.FP-AP.ZZ-0004(Q), "Actions for Inoperable Fire Protection - Hope Creek," was revised to provide for the use of remote video cameras as a compensatory measure to monitor multiple local fire panels. The revised procedure did not include criteria for installing the cameras and cables. The intent was to rely upon an existing approved procedure used by the Radiation Protection Department for camera installation.

Upon inspection by the NRC Resident Inspector and PSE&G Quality Assurance on September 9, 1996, it was determined that cameras and cables installed as compensatory fire protection measures did not meet the installation criteria in the Radiation Protection procedure. Temporary camera cables were found in contact with safety related cable trays.

b. Reason for Violation

The principal cause for placing temporary cables in contact with safety related cable trays was lack of supervisory oversight during the camera installation. The work crew installing the cameras was not adequately instructed that the separation criteria applied to all safety related trays and conduit as well as cables.

The 10 CFR 50.59 Applicability Review for HC.FP-AP.ZZ-0004(Q) did not address the installation of the cameras and temporary cables. The procedure preparer relied upon an existing radiation protection procedure which provided separation criteria for routing temporary cables for cameras.

The radiation protection procedure had been revised in 1995 to specify a minimum distance of one inch between cables and cords for cameras and safety related cables, trays and conduit. For the cables used in this instance, the one inch criterion would provide adequate separation from safety related cable trays. However, the separation criteria in the radiation protection procedure were subsequently evaluated and found to be inadequate to ensure conformance in all cases to requirements for separation between 1E and non-1E cables, cable trays and conduit.

c. Corrective Steps That Have Been Taken and Results Achieved

- i. The temporary cables in close proximity to safety-related cables, cable trays, and conduit were relocated in accordance with design requirements for cable separation.
- ii. The supervisor responsible for installation of the cameras was counseled on performance and on the need to assure procedural requirements are met.
- iii. Camera installations for radiation protection surveillances in close proximity to safety related cables, trays or conduits were inspected and verified to conform to design separation requirements.

d. Corrective Steps That Will Be Taken to Avoid Further Violations

- i. Specific requirements will be developed for use of fire protection surveillance cameras. The guidance will include requirements for cable routing and installation. This activity will be completed before further use of temporary camera installations for fire protection compensatory actions.
- ii. Current radiation protection procedure criteria for installation of cameras for radiation protection surveillance will be revised to include sufficient detail to ensure compliance with separation requirements. This activity will be completed by January 31, 1997.
- iii. Lessons learned from this violation will be communicated to fire protection supervisors. This activity will be completed by December 15, 1996.

e. Date When Full Compliance Will Be Achieved

Full compliance for the fire protection cameras was achieved on September 11, 1996 when the CCTV cables in close proximity to safety-related cables, cable trays, and conduit were relocated.

VIOLATION B

1. Description of the Notice of Violation

"Hope Creek Technical Specification 6.5.2.4.2.a requires in part, that the Offsite Safety Review Committee review Safety Evaluations completed under the provision of 10 CFR 50.59 to verify that completed actions did not constitute an unreviewed safety question.

Contrary to the above, on August 20, 1996, it was determined that the Hope Creek Offsite Safety Review Committee failed to review the Safety Evaluations associated with the following activities:

- (i) Temporary Modifications #95-060 (Service Water Discharge) and #95-065 (Reactor Vessel Level - Shutdown);
- (ii) Design Change Package 4EX-3510 (Cooling Tower); and,
- (iii) Hope Creek Emergency Classification Guide attachments 2, 3, 4, and 8.

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

2. Response to Notice of Violation

PSE&G has reviewed the circumstances described by the NRC and concurs with the facts cited in the NOV.

a. Description of Event

The Offsite Safety Review (OSR) group is required by Technical Specification 6.5.2.4.2.a to perform independent reviews of Safety Evaluations for changes to procedures, equipment or systems; and tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question (USQ). Administrative procedures require the sponsoring organizations to submit completed Safety Evaluations to OSR in a timely manner. OSR is required by procedure to verify that completed Safety Evaluations are being received for independent review.

b. Reason for Violation

10 CFR 50.59 Safety Evaluations are prepared by multiple organizations as part of several different work processes. The current administrative controls rely upon a large number of personnel and organizations to comply with a procedural requirement which does not directly affect the work product.

The principal cause of the failure of OSR to verify all completed Safety Evaluations were being received is inadequate management and supervisory oversight to assure that procedural requirements were being met. In addition there was a lack of knowledge of job performance standards on the part of the OSR personnel assigned responsibility to review the Monthly Operating Reports. Personnel were performing this verification as the work load permitted rather than on a regularly scheduled basis to ensure compliance with the Technical Specification requirement. OSR supervision and management did not verify that reviews were being done in a timely and consistent manner.

c. Corrective Steps That Have Been Taken and Results Achieved

- i. The subject Safety Evaluations have been reviewed by OSR and were verified not to involve a USQ.
- ii. OSR has reviewed the Monthly Operating Reports for Salem and Hope Creek for the period from October 1994 through September 1996. Copies of missing Safety Evaluations were obtained and entered into the OSR tracking system.
- iii. The OSR group supervisor received job performance feedback consistent with PSE&G's positive discipline program. This feedback emphasized the importance of the supervisor's role in assuring requirements are met. In addition, the clerical person involved was counseled on performance and reminded of the need to assure requirements are met.

d. Corrective Steps That Will Be Taken to Avoid Further Violations

- i. The Hope Creek and Salem Monthly Operating Reports for 1991 through 1993 will be reviewed to identify completed 10 CFR 50.59 Safety Evaluations that have not been received by OSR for

independent review. Copies of items not received will be obtained and reviewed by March 31, 1997.

e. Date When Full Compliance Will Be Achieved

Full compliance for the cited examples was achieved on August 22, 1996 when OSR completed the independent reviews required by Technical Specification 6.5.2.4.2.a. Our investigation has found additional instances in which completed 10 CFR 50.59 Safety Evaluations have not been reviewed. Full compliance with Technical Specification 6.5.2.4.2.a will be achieved upon verification that OSR has received and reviewed these completed Safety Evaluations. These activities are scheduled to be completed by March 31, 1997.