

Public Service  
Electric and Gas  
Company

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Vice President and Chief Nuclear Officer

**APR 25 1994**

**NLR-N94078**

Mr. T. Timothy Martin  
Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

Dear Mr. Martin:

CLOSEOUT OF CONFIRMATORY ACTION LETTER 1-94-005  
SALEM GENERATING STATION  
UNIT NO. 1  
DOCKET NO. 50-272

Confirmatory Action Letter (CAL) 1-94-005, dated April 8, 1994, documented a discussion regarding the decision to dispatch an Augmented Inspection Team (AIT) to review and evaluate the circumstances related to the Unit 1 reactor trip and safety injection that occurred on April 7, 1994.

Prior to this discussion PSE&G decided to place Salem 1 in a cold shutdown condition. During the discussion, PSE&G agreed to maintain the cold shutdown condition until the AIT acquired all the information needed for their assessment and was satisfied that any necessary corrective measures had been or would be taken. Subsequently, the AIT completed its on-site efforts, and PSE&G completed its root cause determination into the circumstances surrounding the reactor trip. Actions that have been taken and are currently underway are included on Attachment 1. This attachment discusses which of the Unit 1 actions are also applicable to Unit 2. Attachment 2 discusses how each of the requirements in the CAL have been met.

Sincerely,



S. E. Miltenberger  
Vice President & CNO

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APR 25 1994

Mr. T. Timothy Martin  
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Mr. J. C. Stone, Licensing Project Manager - Salem  
U. S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
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Mr. C. Marschall (S09)  
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager, IV  
NJ Department of Environmental Protection  
Division of Environmental Quality  
Bureau of Nuclear Engineering  
CN 415  
Trenton, NJ 08625

**ATTACHMENT 1  
STARTUP ACTIONS**

The following actions have been taken or will be completed prior to the indicated mode.

Prior to entering mode 4 (Hot Shutdown): replace the Pressurizer Relief Tank Rupture Disk, perform an evaluation of the actuation of the Solid State Protection System, replace the High Steam Flow Input Relays, perform an inspection and evaluation of the PORVs and tailpipe, evaluate/inspect the Pressurizer Safety Valve Tailpipes, send the Pressurizer Code Safety Valves offsite for verification testing, perform an analysis pertaining to IEEE 279 (Circuit to Complete Function), determine root causes for the reactor trip and safety injections, and assess the safety significance of the incident.

Prior to entering mode 3 (Hot Standby): verify Pressurizer Pressure Bistable Setpoints, verify closed limit on PS-1 and PS-3, and repair/replace High Steam Flow Summator.

Prior to entering mode 2 (Startup): perform Rod Control Speed troubleshooting and Bank 'C' Step Counter troubleshooting, perform lift testing on some Main Steam Safety Valves, verify the Condenser Vacuum Alarm Setpoints, install the MS10 Reset Windup design change, and install the Steam Flow Transmitter Dampening design change.

The Control Room log requirements for modes 5 and 6 have been enhanced to monitor RVLIS level and to provide corrective actions when established limits are exceeded. This has been completed for both Unit 1 and Unit 2.

Several operating procedures have been enhanced for both Unit 1 and Unit 2.

Each shift will be provided with refresher training and training that is specific to this incident prior to assuming the Unit 1 watch. Some of the topics include reactivity manipulations at low power, actions to be taken for single train Safety Injection actuations, and resource management (assignment of personnel). Additionally, management expectations concerning command and control are being reinforced. This training/reinforcement has also been conducted for Unit 2.

**ATTACHMENT 1  
POST-STARTUP ACTIONS**

The following are post-startup actions. They are all applicable to both Unit 1 and Unit 2. The current target completion date is included in parentheses following each action.

- Evaluate (along with Westinghouse Owners Group) the need to revise EOP-CFST procedures to allow establishing steam bubble at normal operating pressure/temperature within EOP Network. (1/95)
- Proceduralize existing Night Order Book guidance for use of RVLIS during shutdown conditions. (6/94)
- Incorporate procedural changes into the licensed operator training programs. (11/94)
- Evaluate methods to mitigate the impact of marsh grass on the Circ Water Intake Structure. (12/94)

The following Unit 2 modifications will be installed at the next outage of sufficient duration:

- MS10 Reset Windup
- Steam Flow Transmitter Dampening

An evaluation will be performed to determine if the Unit 2 High Steam Flow Input Relays need to be replaced.

The Unit 1 procedure enhancements applicable to Unit 2 have been completed. The refresher and specific incident training provided for Unit 1 is considered applicable to Unit 2 and will be incorporated into the licensed operator training programs.

**ATTACHMENT 2  
RESPONSE TO CAL**

1. Assure that the AIT Leader is cognizant of, and agrees to, any resumption of activities that involve the operation, testing, maintenance, repair, and surveillance of any equipment, including protection logic or associated components, which failed to properly actuate in response to the reactor trip and safety injection(s) of April 7, 1994.

The AIT leader was kept cognizant of, and agreed to, the operation, testing, maintenance, repair, and surveillance of the equipment, including protection logic or associated components, related to the reactor trip and safety injection(s) of April 7, 1994. This item is closed.

2. Assemble, or otherwise make available for review by the AIT, all documentation (including analyses, assessments, reports, procedures, drawings, personnel training and qualification records, and correspondence) that have pertinence to the equipment problems leading up to the reactor trip and safety injection(s), and subsequent operator response and recovery actions.

All documentation (including analyses, assessments, reports, procedures, drawings, personnel training and qualification records, and correspondence) required by the inspection team was provided satisfactorily. This item is closed.

3. Assemble, or otherwise make available for review by the AIT, all equipment, assemblies, and components that were associated with the problems encountered during the events leading up to, and subsequent to the reactor trip and safety injection(s).

All equipment, assemblies, and components were available for inspection by the AIT. This item is closed.

4. Make available for interview by the AIT, all personnel that were associated with, or have information or knowledge that pertains to the problems encountered during the events leading up to, and subsequent to the reactor trip and safety injection(s).

Access to all requested interviewees was provided. This item is closed.

5. Gain agreement from the Regional Administrator prior to commencing plant startup.

Agreement to commence startup will be requested by a letter at a later date.