



Portland General Electric Company

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Bart D. Withers Vice President

REGION VISE

October 26, 1982

Trojan Nuclear Plant  
Docket 50-344  
License NPF-1

Mr. R. H. Engelken  
Regional Administrator, Region V  
U. S. Nuclear Regulatory Commission  
Creekside Oaks Office Park  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596-5368

Dear Mr. Engelken:

Notice of Violation Dated October 6, 1982

In accordance with the provisions of 10 CFR 2.201, Portland General Electric Company submits the attached response to the subject Notice of Violation.

Sincerely,

Bart D. Withers  
Vice President  
Nuclear

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PDR ADDCK 05000344  
Q PDR

Attachment

c: Director, Office of Inspection  
and Enforcement

Mr. Lynn Frank, Director  
State of Oregon  
Department of Energy

Subscribed and sworn to before me this 26th day  
of October, 1982



Notary Public of Oregon

My Commission expires August 9, 1983

Notice of Violation Dated October 6, 1982

The subject Notice of Violation referenced an item of noncompliance where both trains of the automatic actuation logic for the safety injection system were blocked for a period of 43 hr and 39 min. This event was identified by Plant Management on August 20, 1982. In accordance with the Trojan Plant Operating License, Appendix A, USNRC Technical Specification 6.9.1.8.f, this violation was immediately reported to the NRC on August 20, 1982. Additionally, Licensee Event Report (LER) 82-15 was submitted to the NRC on September 3, 1982 and gave a detailed explanation of this violation and the planned corrective actions.

On October 7, 1982 an Enforcement Meeting was held between the NRC and PGE Management to discuss this Notice of Violation and two other related LERs. The other two LERs were:

82-04: This report identified a situation where the "B" train Containment spray and centrifugal charging pump control switches were left in the pull-to-lock position for approximately 7-1/2 hr following surveillance testing.

82-14: This report identified a situation where the "B" train residual heat removal (RHR) pump was left in the pull-to-lock position for approximately 5 hr following ECCS valve inservice testing.

It was the NRC's opinion during the Enforcement Meeting that these LERs were related and that PGE should investigate to determine if a trend exists and take appropriate corrective action. PGE's review of these LERs has shown they had the following things in common:

1. All three LERs (82-04, 82-14, and 82-15) were caused by operator error.
2. For all three LERs, existing procedures were inadequate in terms of providing specific controls for the removal of equipment from service and for documenting its return to service.
3. All three LERs involved situations where safety-related equipment was intentionally removed from service. After the equipment was removed from service there were no controls placed on the equipment to ensure it would be returned to service.
4. For all LERs, it was the Control Operator or Assistant Control Operator that removed the equipment from service.
5. For all three LERs, the Shift Supervisor was not informed at the time the equipment had been disabled.

6. For all three LERs, the fact that the equipment had been disabled was not logged in the control room log or in any turnover sheets. People were relying on their memory to restore the equipment.
7. For all three LERs, the equipment was made inoperable for operational concerns.
8. For all three LERs, the equipment was subsequently found to be inoperable during control board walkdowns by Plant staff.

In developing corrective actions in response to this Notice of Violation, it is important to keep the following in mind:

1. We want to improve and provide better implementation of existing procedural controls rather than develop additional procedures.
2. We want to develop or improve operator aids and tools rather than set additional requirements.
3. We want to keep from overburdening the operator with unnecessary or redundant administrative controls.

Pursuant to the subject Notice of Violation and the Enforcement Meeting the following explanations and corrective actions are submitted.

#### Admission or Denial of the Alleged Item of Noncompliance

This violation was discovered by PGE Management and reported to the NRC in accordance with Trojan's Operating License. PGE has fully acknowledged this violation since the time of its discovery.

#### Reasons for the Items of Noncompliance

LER 82-15: The cause was personnel error in that the operators on shift were not cognizant of the fact that both trains of ECCS (automatic safety injection) were required to be in service before entering Mode 4 as required by the Technical Specification 3.3.2.1. Contributing to this error was the fact that both trains of automatic safety injection were blocked and effectively placed out of service without utilizing a safety-related equipment outage work sheet. Use of the safety-related equipment outage work sheet would have alerted Operations personnel to the Standard Technical Specification significance of this safety feature. Additionally, the safety injection system was blocked without using an approved procedure. Having a procedure may have warned the operator of the Technical Specification requirement.

LER 82-14: The cause was personnel error in that the control operator deviated from the ECCS valve inservice testing procedure without initiating the required documentation as required in the Plant operating manual procedures for safety-related equipment outages or procedure deviations. The intent of the control operator was to prevent possible equipment damage by taking the RHR pump switch to pull-to-lock. The procedure did not contain specific steps for removing the pump from service or placing it back in service. Since they were not contained in the procedure, these steps should have been documented by initiating a procedure deviation or safety-related equipment outage form.

LER 82-04: The cause was personnel error contributed to by nonspecific steps for equipment realignment in the controlling test procedure. Upon completion of surveillance testing of the DBA sequencer the control switches for the "B" train Containment spray and centrifugal charging pumps were placed in the pull-to-lock position for breaker rack-in. After the breakers were racked-in, the Control Operator signed the single space for "all equipment returned to normal lineup" but failed to return the control switches to auto.

#### Corrective Steps Taken and Results Achieved

Corrective actions noted below are a combination of those actions noted in the individual LERs and actions subsequently developed.

1. The reactor trip breakers were immediately closed at 1130 hr on August 20, 1982 which unblocked the automatic safety injection signals.
2. The subject pump switches that were noted in the pull-to-lock position were immediately removed from that position.
3. Shift Supervisor meetings were held on September 1 and October 6, 1982 during which time these violations were discussed in detail. The Shift Supervisors were directed to be more aware of the potential for similar events. In addition, the Operations staff was directed to ensure that whenever safety-related equipment, components, or systems are removed from service, the safety-related equipment outage work sheet must be used regardless of who requests or initiates the outage. These requirements were reviewed with all operators.
4. AO-3-14, "Safety-Related Equipment Outage", has been revised to require the use of the outage work sheets in all modes.

5. To ensure that operational crews are always aware of the status of safety-related equipment removed from service, procedural requirements have been established to ensure safety-related outage sheets are placed in the clearance notebook as soon as the equipment is removed from service.
6. A requirement to check the auto safety injection block permissive status lights has been added to the Shift Technical Advisor checklist. This checklist is completed once every 12 hr.
7. In an effort to reduce operator error, the Operations Department has developed a plan to increase supervision on each crew during Modes 1-4. Additionally, specific objectives to increase effective supervision have been developed for these supervisors.
8. The Operations Department established an objective in March of this year to have Shift Supervisors meetings at least twice quarterly. This will accomplish the following:
  - a. Increase the flow of information from management to the crews and from the crews to management.
  - b. Help ensure uniform policies and accountabilities are established for all crews.
  - c. Help ensure workable corrective actions are being taken to resolve problems.
  - d. Increase direction and supervision of crews.
  - e. Keep all Operations crews informed of abnormal events.
9. Caution tags have been placed next to the safety injection reset buttons to ensure the operator is made aware of the applicable Technical Specification requirements. These requirements are:

"The reactor trip breakers must be closed within 1 hr of resetting safety injection or be in HOT SHUTDOWN within the next 6 hr, and COLD SHUTDOWN within the following 30 hr."
10. Administrative Order<sup>s</sup> have been changed to require the Operations Supervisor or Duty Manager to review the status of safety-related equipment before changing modes.

Corrective Steps to be Taken to Avoid Further Items of Noncompliance

1. General Operating Instruction checklists are being rewritten in more detail. This will help ensure mode changes are not made without the required equipment being in service and tested. Revised procedures will be issued by November 30, 1982.
2. All control switches and breaker switches which, if mispositioned, could prevent a piece of engineered safety feature equipment from performing its intended function will be added to the locked valve list. These switches will be controlled the same as locked valves except control panel switches will not have locking devices on them. They will have a special label that indicates its controlled position. Additionally, a special tag will be placed on the switch when it is out of position to make it stand out. The locked valve list will be updated by November 30, 1982.
3. All periodic operating tests are being reviewed to ensure they document the return to service of all safety-related equipment that is disabled during the test. Additionally, they are being reviewed to ensure the procedures are specific, easy to follow, and clearly show acceptance criteria. This review will be completed by January 31, 1983.

Dates of Achieving Full Compliance

Dates by which corrective actions will be completed are noted above.