

NOV 15 1989

Docket No. 50-344

Portland General Electric Company
121 S. W. Salmon Street
Portland, Oregon 97204

Attention: Mr. David W. Cockfield
Vice President, Nuclear

Thank you for your letter dated October 12, 1989, in response to our Notice of Violation and Inspection Report No. 50-344/89-17, dated September 12, 1989, informing us of the steps you have taken to correct the items which we brought to your attention. Your corrective actions will be verified during a future inspection.

Your cooperation with us is appreciated.

Sincerely,

original signed
A. E. Chaffee, Deputy Director
Division of Reactor Safety and
Projects

bcc w/copy of letter 10/12/89:
docket file
State of Oregon
A. Johnson
G. Cook
B. Faulkenberry
J. Martin
Resident Inspector
Project Inspector
J. Zollicoffer
M. Smith

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Portland General Electric Company

David W. Cookfield Vice President, Nuclear

October 12, 1989

Trojan Nuclear Plant
Docket 50-344
License NPF-1

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington DC 20555

Dear Sir:

Reply to a Notice of Violation

Your letter of September 12, 1989 transmitted a Notice of Violation associated with Nuclear Regulatory Commission (NRC) Inspection Report 30-344/89-17. Attachment 1 is our response to that Notice of Violation.

Sincerely,

Howalter

Attachment

c: Mr. John B. Martin
Regional Administrator, Region V
U.S. Nuclear Regulatory Commission

Mr. David Stewart-Smith
State of Oregon
Department of Energy

Mr. R. C. Barr
NRC Resident Inspector
Trojan Nuclear Plant

REPLY TO A NOTICE OF VIOLATION

VIOLATION A

Title 10 to the Code of Federal Regulations, Part 50 (10 CFR 50), Appendix B, Criterion XVI, provides, in part, that "measures shall be established to assure that conditions adverse to quality such as . . . nonconformances are promptly identified and corrected".

Nuclear Quality Assurance Program, PGE-8010, Section 16.2.1., states in part, that "Any PGE employee has the authority and responsibility to report a nonconforming activity (NCAR) to their manager or supervisor who will assure that the nonconforming activity is or has been documented on an NCAR unless it has been previously documented".

Contrary to the above, on July 14, 1989, while conducting steam generator crevice flushing per Operating Instruction (OI)-T-61 "Steam Generator Crevice Flushing", Revision 0, dated July 11, 1989, Licensee employees identified boiling in the residual heat removal/component cooling water RHR/CCW heat exchangers, but did not promptly document the boiling as a nonconforming activity.

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

Response

Portland General Electric (PGE) acknowledges the violation.

1. Reason for the Violation:

The reason for the violation was personnel error, failure to comply with the procedure.

2. Corrective Steps That Have Been Taken and The Results Achieved:

Event Report (ER) 89-105, "Void formed in Component Cooling Water (CCW) Side of the RHR Heat Exchanger", was initiated July 17, 1989. The ER evaluation has been completed and is undergoing review by the Performance Monitoring and Event Analysis (PM/EA) Branch of PGE. All operating crews were lectured on the need to follow and comply with procedures. Supervision involved in this event were counseled on the need to recognize and document nonconforming activities.

3. The Corrective Steps That Will Be Taken to Avoid Further Violations:

Procedural compliance has been emphasized by all levels of supervision and management. These levels include the Branch Manager of Operations through the Vice President, Nuclear. The issue of procedural compliance will continue to receive high levels of attention to ensure that the proper use of procedures becomes a standard for PGE performance. Management has also been counseled on the need to provide oversight of significant Plant activities.

4. The Date When Full Compliance Will Be Achieved:

Full compliance was achieved following the issuance of Event Report 89-105 on July 17, 1989.

VIOLATION B.1

10 CFR Part 50, Appendix B, Criterion V, states, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings".

Contrary to the above, Maintenance Instruction (MR) 89-1538 did not provide appropriate work instructions specifying that the calibration of the first stage impulse pressure lead-lag module, LY-505-E, could only be calibrated while shut down. Because the procedure was used with the reactor at 100 percent power on March 4, 1989, a steam generator water-level transient occurred.

This is a Severity Level IV violation.

Response

PGE acknowledges the violation.

1. Reasons for the Violation:

- a. The work instructions for calibrating modules in the Hagan instrumentation racks were inadequate. They did not provide clear instructions for designating which modules could be calibrated with the Plant operating at power. The MR was generic in nature, and did not contain specific instructions concerning the methods to be used for calibrating individual modules.
- b. The Instrument and Control (I&C) Craft Supervisor did not provide an adequate pre-job briefing to the technicians. He did not explain the use of a list attached to the MR and markings on the folders which contain the calibration data sheets for the modules. The list with the MR contained only modules which can be calibrated at power. Specific folders are annotated with an asterisk to indicate that some of the module calibration data sheets contained within cannot be completed at power. However, neither the list contained within each folder nor the individual calibration data sheets indicated which modules could not be calibrated at power.
- c. A contributing cause was the Work Group Supervisor did not follow approved procedures in that he did not perform a second pre-job briefing when the work originally planned for Saturday, March 4, 1989, was deferred and other work was substituted.

2. Corrective Steps Taken and Results Achieved:

- a. An additional job position for a Supervisor, I&C Maintenance, has been provided. This will provide improved supervision of I&C technicians.
- b. The use of generic MRs for calibrating Hagan instrumentation modules has been discontinued. MRs must clearly indicate the specific modules to be calibrated.
- c. The folders for associated Hagan instrumentation modules have been reorganized so there is a clear distinction between modules which can be calibrated at power and those that cannot.
- d. The calibration data sheets for Hagan instrumentation modules which cannot be calibrated at power have been clearly marked.
- e. This event was critiqued with all of the I&C technicians in a training session led by the two technicians that committed the error. The requirements for adequate work instructions, thorough pre job briefings, and the need for reporting back to the supervisor when faced with uncertainty, were all stressed.

3. Corrective Steps That Will Be Taken to Avoid Further Violations:

Detailed procedures for calibrating Hagan instrumentation models are being developed. Additional resources are being applied to this task.

4. Date When Full Compliance Will Be Achieved:

Detailed module calibration instructions will be included in the appropriate Plant I&C Test procedures. This will be completed by September 30, 1990.

VIOLATION B.2

10 CFR Part 50, Appendix B, Criterion V, states, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings".

Contrary to the above, Temporary Operating Instruction OI-T-61, "Steam Generator Crevice Flushing", Revision 0, dated July 11, 1989, was not appropriate for the circumstances in that the procedure required closing the CCW supply valves to the RHR heat exchanger with 315°F reactor coolant flowing through the heat exchanger, which resulted in the shell side of the RHR/CCW heat exchanger exceeding its design analyzed temperature by approximately 105°F on July 14, 1989.

This is a Severity Level IV violation.

Response

PGE acknowledges the violation.

1. Reason for the Violation:

The reason for the violation was personnel error in not performing an adequate safety evaluation and technical review, which resulted in an inadequate procedure.

2. Corrective Steps That Have Been Taken and the Results Achieved:

The temporary instruction written to perform this evolution was deviated to allow throttling of RHR heat exchanger outlet and bypass valves.

A walkdown of the RHR heat exchangers and associated CCW piping was performed to ensure damage had not occurred. The design bases of the RHR heat exchangers and associated piping were reviewed to ensure design limits for this equipment were not exceeded. A "lessons learned" information notice on this event was written and distributed to PGE Nuclear Division employees. The incident was reviewed and discussed with the crew involved, and the individuals that conducted the original safety evaluation were counseled on the significance of the safety evaluation error.

Plant Operating Manual (POM) procedures GOI-4 (Plant Shutdown From Hot Standby to Cold Shutdown) and OI-4-1 (Residual Heat Removal) were revised to prevent the CCW side of the RHR heat exchanger from exceeding 200°F and to require that CCW flow always be maintained to the RHR heat exchanger during Mode 4 when RHR is in service.

Procedure OI-T-61, "Steam Generator Crevice Flushing", has been deleted from the Plant Operating Manual.

5. Corrective Steps That Will Be Taken to Avoid Further Violations:

A Request for Design Change (RDC) to replace the RHR heat exchanger valves (RDC 88-17) was reviewed by management and the priority for implementation was raised to the highest priority (Level 1) in the capital plan.

Engineering for this RDC is scheduled for 1990. Installation is scheduled for 1991. This RDC will allow the RHR valves to throttle RHR flow effectively, thereby eliminating the need to throttle the CCW flow to the heat exchangers.

4. Date When Full Compliance Will Be Achieved:

Full compliance was achieved on July 15, 1989 when the temporary instruction, OI-T-61, was deviated to allow performance of the evolution.

VIOLATION B.3

Administrative Order (AO) 4-2, "Use of Procedures" defines the requirements for the use of Plant procedures contained in the Plant Operating Manual (POM).

Section 4.2.3.a of the POM requires, in part, that personnel are not to blindly follow procedures. Rather, if the POM or lower-tier procedures cannot or should not be performed as written, procedures are to be revised or deviated in accordance with AO 4-4 or appropriate Lower-Tier Administrative Procedures.

Contrary to the above, on July 14, 1989, while conducting crevice flushing of steam generators per Procedure OI-T-61, "Steam Generator Crevice Flushing", Revision 0, dated July 11, 1989, OI-T-61 could not be performed as written, but was performed differently than written in that Valves MO-3210A&B were alternately opened and closed where the procedure specified the valves be closed, even though the procedure for conducting the evolution was not revised or deviated.

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

Response

PGE acknowledges the violation.

1. Reason For The Violation:

The reason for the violation was personnel error, failure to comply with the procedure.

2. Corrective Steps That Have Been Taken and The Results Achieved:

Procedure OI-T-61 was deviated in accordance with AO 4-4, "Procedure Additions, Revisions, Deletions, Deviations and Corrections", on July 15, 1989. The individuals involved with the procedural non-compliance were counseled concerning their responsibility to follow procedures.

3. The Corrective Steps That Will Be Taken to Avoid Further Violations:

PGE has reemphasized the importance of procedural compliance in a meeting conducted by the Vice President, Nuclear, to all station personnel on September 15, 1989. This issue will continue to receive high levels of attention to ensure procedural compliance becomes standard performance.

4. Date When Full Compliance Will Be Achieved:

Full compliance was achieved on July 15, 1989 when procedure OI-T-61 was deviated.

VIOLATION B.4

Administrative Order 3-9, "Maintenance Requests", establishes the controls for initiating, planning, performing and documenting work performed in response to Maintenance Requests (MRs).

Section 4.9.1 of this order states that "Changes in MR work instructions, made after approval by the Cognizant Work Group Supervisor, shall be submitted for supervisor approval prior to implementation".

Contrary to the above, on April 28, 1989, the work instructions of MR 89-1770 did not include instructions for pulling wires from Containment penetration BZ03; even though MR 89-1770 had been approved by the Cognizant Work Group, wires were pulled out of the penetration module without changing the work instructions or obtaining appropriate supervisor approval to conduct the wire pulling.

This is a Severity Level IV violation.

Response

PGE acknowledges the violation.

1. Reason for the Violation:

During replacement of seals to the penetration modules, an engineer in charge of the replacement project incorrectly authorized an electrician to perform work not specified in the MR by having the electrician pull-test wires in the module to check for tightness. This engineer also instructed his relief engineer to pull test wires in modules, again without supervisor approval of the revised MR work instructions. Although the engineers in question believed, at the time of the incident, that their actions were allowable using engineering judgment, they had not complied with Procedure AO-3-9, Section 4.9.1, "MR Package Revisions".

2. Corrective Steps That Have Been Taken and the Results Achieved:

The incident was discussed with the Plant System Engineering Department. The engineers were instructed to the requirements of AO-3-9, in particular the need to obtain permission to deviate from MR work instructions on May 2, 1989.

3. Corrective Steps That Will Be Taken to Avoid Further Violations:

Guidance is being developed to specify the activities that can be performed by designers and engineers during equipment walkdowns and inspections. This Guidance will be developed by January 31, 1990.

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4. Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by January 31, 1990 following the development of guidance for engineering walkdowns.

VIOLATION B.5

Administrative Order AO 5-5, "Request for Evaluation", establishes the process for requesting, documenting and tracking a Request For Evaluation (RFE).

Section 3.4.1 of AO 5-5 states, in part, that:

"The assigned evaluator shall review the situation described in Part 1 of the RFE and the assigned RFE priority. If the evaluator determines it is not possible to completely resolve the RFE within the date implied by the assigned priority, the evaluator shall:

- a. Perform an evaluation in sufficient detail to determine what actions need to be taken to resolve the RFE and complete an Initial RFE Response . . ."

Contrary to the above procedure, the below are examples of RFEs which were not responded to within the date specified by the priority:

<u>RFE No.</u>	<u>Priority</u>	<u>Date Logged</u>	<u>Evaluation Date</u>	<u>Days Late</u>
6825	30 Day	06/12/89	07/28/89	16 Days
6787	7 Day	06/05/89	06/21/89	9 Days
6722	7 Day	05/19/89	/ /	No Evidence Performed
6699	7 Day	05/17/89	06/29/89	37 Days
6581	7 Day	04/27/89	05/16/89	12 Days

This is a Severity Level IV violation.

Response

PGE acknowledges the violation.

1. Reason For The Violation:

The reason for the violation is personnel error, failure by the assigned individuals to comply with the requirements of procedure AO 5-5.

2. Corrective Steps That Have Been Taken and the Results Achieved:

Each RFE associated with the violation was evaluated prior to August 15, 1989. No operability concerns existed.

To ensure an immediate proper assignment of priority to RFEs, a priority field has been included on the Trojan Engineering Work Tracking System (TEWTS). This priority field will inform the supervisor of the cognizant system engineer of the initial response due date.

3. Corrective Steps That Will Be Taken to Avoid Further Violations:

To ensure management awareness of the status of the RFE Program, the RFE backlog will be included on the Plant System Engineering Quarterly Progress Report.

An action plan will be developed by October 15, 1989 to improve the RFE process.

On June 29, 1989, the Plant Systems Engineering (PSE) Branch Manager began implementing a plan for reducing the RFE backlog. This backlog reduction plan will review all open RFEs in order to reprioritize and develop a plan for resolution by December 1, 1989.

6. Date When Full Compliance Will Be Achieved:

Full compliance will be achieved when the backlog reduction resolution plan is completed on December 1, 1989.

VIOLATION B.6

Administrative Order 10-1, "Plant Housekeeping", defines the responsibilities for maintaining the Plant in a clean and orderly condition.

Section B., AO 10-1 states, in part, that:

"Each employee will perform the following at the termination of each assignment or at the end of the day if the assignment is not yet completed: 1) Wipe up minor oil spills; pick up rags, papers and other foreign material. All solvent waste, oily rags and other flammable liquids shall be kept in fire-resistant covered containers and are to be emptied at reasonable intervals as the work progresses and upon completion of the work".

Contrary to the above, at the end of the work days specified below, the following conditions existed:

- a. On June 18, 1989, oily rags and tubing were on the diesel-driven auxiliary feedwater (AFW) pump.
- b. On June 28, 1989, oily rags were on both main feedwater (MFW) pumps and insulation was lying near the pumps. Also, approximately 2.5 gallons of oil in an open bucket was next to the south MFW pump and a half coffee can of linseed oil was next to the north MFW pump.

This is a Severity Level IV violation.

Response

PGE acknowledges the violation.

1. Reasons for the Violation.

- a. The cause of this violation was personnel error in that there was a basic misunderstanding of the instructions of the Administrative Order. The criteria for housekeeping at the end of each shift was misinterpreted. The rags and parts lying on the diesel-driven AFW pump were being stored until additional parts could be obtained to complete the task. The parts were laid out around the pump base and rags were used to cover the open flanges from which piping had been removed. However, the parts and rags were in such a fashion that it was not apparent that these items were purposely placed there. Care was not taken to ensure that these items were being controlled.

The lack of control of material (oily rags, oil in buckets and insulation) around the Main Feedwater (MFW) pumps was the result of several different work groups, each one apparently assuming that another group would take care of the debris. The bucket of oil came from an unknown source as the oil was not from any activity associated with the inspection of the MFW pump that was in progress at the time.

- b. Another contributing cause for this incident was the supervisors of the work crews involved did not tour the work sites frequently to ensure cleanliness requirements were being met.

2. Corrective Steps Taken and Results Achieved:

- a. All maintenance personnel were instructed to use wooden closures on open piping when components were removed. They were further instructed to tape all temporary closures using the rags so that these closures can be immediately identified as a controlled closure.
- b. Maintenance personnel were instructed to clean their work areas regardless of the source. Emphasis was placed on completing cleanup at the end of the shift regardless of whether or not the task had been completed.
- c. Maintenance personnel were instructed to assure that parts and equipment removed during the disassembly of any equipment are laid out in order and isolated to prevent inadvertent scattering of equipment or loss of the parts.

3. Corrective Steps That Will Be Taken to Avoid Further Violations:

- a. During large repair tasks, supervisors will be assigned direct field responsibilities to oversee the work to ensure the supervisor is in contact with the field work and is able to provide the necessary guidance to ensure cleanliness requirements are being met.
- b. A revision to AO-10-1 and MP-3-5 will be completed to reflect the requirements to use temporary closures or tape closure materials. These revisions will be completed by November 31, 1989.

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c. PGE will evaluate a change to the responsibility of the maintenance supervisors. It will be considered to have job analysts do a complete document review of the work package. This practice will allow the supervisor to focus on maintenance work closeout, ensuring Circle Q, Circle I holdpoints and housekeeping requirements are met. This evaluation will be completed by December 31, 1989.

4. Date When Full Compliance Will Be Achieved:

Full compliance was achieved following cleanup and restoration of the area around the diesel-driven auxiliary feedwater pump and the main feedwater pumps.

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