

APPENDIX B

NOTICE OF DEVIATION

Portland General Electric Company
Trojan Nuclear Generating Plant

Docket No. 50-344
License No. NPF-1

As a result of the inspection conducted during the period of December 18 through 22, 1989, a deviation of your commitment in the Final Safety Analysis Report was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the deviation is listed below:

- A. Trojan Final Safety Analysis Report, paragraph 11.5.2.2, Continuous Gas Monitoring Systems, provides that sampling devices and procedures reflect the recommendations of ANSI N13.1-1969, Guide to Sampling Airborne Radioactive Material in Nuclear Facilities.

ANSI N13.1-1969, Appendix A, Guides for Sampling from Ducts and Stacks, reads, in part:

The point at which a duct or stack should be entered for sampling should be selected after taking into account several factors. In the region immediately downstream from bends or severe transitions, flow patterns may be markedly distorted. These locations should be avoided...Generally, the distance from the transition or elbow to the point of sampling should be a minimum of five and preferably ten or more diameters downstream...It is recommended that the velocity distribution be measured at the anticipated section to determine that flow is fully developed and mixing complete...For laminar flow ($Re < 2100$) in circular ducts the flow profile is a parabolic distribution of velocities...The average velocity occurs at about 0.7 the radial distance from the axis of the duct to the wall. A sample drawn from this point through the inlet of the probe at a velocity equal to the average velocity in the duct will furnish a valid sample...At greater velocities and flows, turbulent flow will likely exist...

Contrary to the above, the physical configuration of Temporary Modification (TM) 89-072; installed to the PRM-1 sampling system on July 13, 1989; did not meet the criteria, as specified in ANSI N13.1-1969, for isokinetic sampling of the Hydrogen Vent System (HVS) effluent during containment pressure reductions in that the sample line was not positioned in the HVS duct but in front of the HVS nozzle penetration into the purge duct, providing a radical flow transition; the sample line was not rigidly fixed in position allowing it to be moved about by the air flow; and the sample line was secured by stay-ties and tape which would be expected to further disturb the air flow.

This is a deviation.

Please provide to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator,

Region V, and a copy to the NRC Resident Inspector, Trojan, in writing within 30 days of the date of this Notice; the reason for the deviation, the corrective steps that have been taken to avoid further deviations, the results achieved, and the date when your corrective action will be complete. Please inform us if you are unable to respond within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Ross A. Scarano, Director
Division of Radiation Safety
and Safeguards

Dated at Walnut Creek, California
this *19th* day of *January*, 1990

APPENDIX B

NOTICE OF DEVIATION

Portland General Electric Company
Trojan Nuclear Generating Plant

Docket No. 50-344
License No. NPF-1

As a result of the inspection conducted during the period of December 18 through 22, 1989, a deviation of your commitment in the Final Safety Analysis Report was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the deviation is listed below:

- A. Trojan Final Safety Analysis Report, paragraph 11.5.2.2, Continuous Gas Monitoring Systems, provides that sampling devices and procedures reflect the recommendations of ANSI N13.1-1969, Guide to Sampling Airborne Radioactive Material in Nuclear Facilities.

ANSI N13.1-1969, Appendix A, Guides for Sampling from Ducts and Stacks, reads, in part:

The point at which a duct or stack should be entered for sampling should be selected after taking into account several factors. In the region immediately downstream from bends or severe transitions, flow patterns may be markedly distorted. These locations should be avoided...Generally, the distance from the transition or elbow to the point of sampling should be a minimum of five and preferably ten or more diameters downstream...It is recommended that the velocity distribution be measured at the anticipated section to determine that flow is fully developed and mixing complete...For laminar flow ($Re < 2100$) in circular ducts the flow profile is a parabolic distribution of velocities...The average velocity occurs at about 0.7 the radial distance from the axis of the duct to the wall. A sample drawn from this point through the inlet of the probe at a velocity equal to the average velocity in the duct will furnish a valid sample...At greater velocities and flows, turbulent flow will likely exist....

Contrary to the above, the physical configuration of Temporary Modification (TM) 89-072; installed to the PRM-1 sampling system on July 13, 1989; did not meet the criteria, as specified in ANSI N13.1-1969, for isokinetic sampling of the Hydrogen Vent System (HVS) effluent during containment pressure reductions in that the sample line was not positioned in the HVS duct but in front of the HVS nozzle penetration into the purge duct, providing a radical flow transition; the sample line was not rigidly fixed in position allowing it to be moved about by the air flow; and the sample line was secured by stay-ties and tape which would be expected to further disturb the air flow.

This is a deviation.

Please provide to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator,

Region V, and a copy to the NRC Resident Inspector, Trojan, in writing within 30 days of the date of this Notice; the reason for the deviation, the corrective steps that have been taken to avoid further deviations, the results achieved, and the date when your corrective action will be complete. Please inform us if you are unable to respond within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Ross A. Scarano, Director
Division of Radiation Safety
and Safeguards

Dated at Walnut Creek, California
this *19th* day of *January*, 1990