



Portland General Electric Company

Bart D. Withers Vice President

September 3, 1985

Trojan Nuclear Plant
Docket 50-344
License NPF-1

Director of Nuclear Reactor Regulation
ATTN: Mr. E. J. Butcher, Jr., Acting Chief
Operating Reactors Branch No. 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington DC 20555

Dear Mr. Butcher:

Implementation Letter Report
Reactor Vessel Level Instrumentation System

Your letter of February 2, 1985 containing the safety evaluation for the Reactor Vessel Level Instrumentation System (RVLIS) requested the submittal of an implementation letter report. This report is attached.

Sincerely,

Bart D. Withers
Vice President
Nuclear

Attachment

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

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

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RVLIS Implementation Letter Report

The RVLIS installation, functional testing, and calibration are complete. The test results are available for inspection and demonstrate the system's performance is in accordance with design expectations and error tolerances. The final system description is unchanged from that provided in our previous submittals; however, the following clarification should be noted:

1. Appendix B of NUREG-0737 requires redundant or diverse channels be electrically independent and physically separated in accordance with Regulatory Guide 1.75 up to and including any isolation device.

Regulatory Guide 1.75 is the NRC guidance for complying with the physical separation and electrical independence requirements of IEEE 279-1971 and General Design Criteria 3, 17, and 21. Trojan was designed prior to the issuance of Regulatory Guide 1.75. In general, the cable and raceway systems were designed and installed in accordance with IEEE Transactions Paper 17TP83, as stated in Updated FSAR Section 8.3.1.4. The protection systems were designed in accordance with IEEE 279-1971 in order to meet General Design Criterion 21, as stated in Updated FSAR Section 3.1.3. The methods by which Trojan meets General Design Criteria 3 and 17 are specified in Updated FSAR Sections 3.1.1 and 3.1.2, respectively. Since the RVLIS has redundant circuits which are routed in train-separated channelized raceways from sensors to displays, the intent of the NUREG-0737 design criteria to install reliable instrumentation is considered to have been met.

2. Appendix B of NUREG-0737 requires periodic testing of instrument channels be done in accordance with the applicable portions of Regulatory Guide 1.118. Regulatory Guide 1.118 references IEEE 338-1977, which applies to protection systems, not indicating systems. The RVLIS complies with those Regulatory Guide criteria deemed applicable for indicating systems.

The testing of the RVLIS will be performed in accordance with the Trojan Technical Specification requirements when issued. The Technical Specification requirements address testing intervals and the types of tests to be performed and are considered adequate.

Regulatory Guide 1.118 criteria for procedure format and documentation (Section 6.6 of IEEE 338-1977) have not been implemented since the current procedure format and documentation requirements for instrumentation and control testing are considered adequate.

3. Appendix B of NUREG-0737 also requires seismic qualification in accordance with Regulatory Guide 1.100. The RVLIS has been seismically qualified to IEEE 344-1975 in lieu of the requirements of Regulatory Guide 1.100. This qualification is considered adequate.

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Our submittal of August 7, 1985 (License Change Application 125) requested changes to the Trojan Technical Specifications to incorporate the RVLIS and core exit thermocouples. The subcooling margin monitors are already contained in the Trojan Technical Specifications.

NRC approval of the Trojan RVLIS is hereby requested. It is our intent to declare the RVLIS operational coincident with the implementation of the revised Emergency Operating Procedures (EOPs). The revised EOPs conform to the NRC-approved EOP Guidelines and their implementation is expected to occur after November 1, 1985, but no later than December 31, 1985. Operating training on the RVLIS is currently in progress and will be complete prior to November 1, 1985.