



Portland General Electric Company

James E. Cross Vice President, Nuclear

December 31, 1990

Trojan Nuclear Plant
Docket 50-344
License NPF-1

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

Dear Sirs:

Portland General Electric Company (PGE) Program
Description and Implementation Schedule Developed
in Response to Generic Letter 89-10, "Safety-Related
Motor-Operated Valve Testing and Surveillance"

Generic Letter (GL) 89-10, dated June 28, 1989, requires in Item i. that each licensee make available to the Nuclear Regulatory Commission (NRC) within one year or one refueling outage from the date of the generic letter (whichever is later) the following:

1. The description and schedule for the design-basis review as recommended in Item a. of the generic letter.
2. The program description and schedule for Items b. through h. of the generic letter.

As noted in the NRC letter to PGE dated August 17, 1990, the date upon which the program schedule must be available has been changed to January 1, 1991.

The program description for safety-related motor-operated valve testing and surveillance is now available at Trojan for review.

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This letter constitutes PGE's second response to GL 89-10. The program schedule (including technical justification for schedule exceptions) for the design basis review, testing and analysis, as recommended in Items a. through h. of the generic letter, is attached.

The proposed completion date for valve testing at Trojan is December 31, 1996.

Sincerely,



T. D. Walt for J. E. Cross

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

PROGRAM SCHEDULE AND TECHNICAL JUSTIFICATION

Program Schedule

Generic Letter (GL) 89-10 recommends that licensees develop a program for the testing, maintenance and inspection of motor-operated valves (MOVs) to ensure proper function under design basis conditions during both normal and abnormal Plant operation. The proposed program schedule for the implementation of PGE's GL 89-10 program is based on a six-year schedule as outlined below.

Technical Justification For Program Schedule

A six-year schedule will allow PGE to coordinate the required inspections and testing with the current six-year actuator refurbishment cycle, coordinate actuator disassembly with currently scheduled Environmental Qualification (EQ) component replacement, and develop a verifiable methodology for confirming MOV design adequacy.

Confirming MOV operability under design basis conditions is a complex task. Recent results from the NRC-sponsored testing^[1] show that many additional factors (e.g., valve condition) need to be considered when confirming actuator design sizing. In addition, testing at Trojan has confirmed that the rate at which a MOV is loaded must also be taken into consideration when testing an MOV under non-differential pressure conditions to ensure operability under differential pressure (DP) conditions. The implementation of the testing program will require a detailed design review incorporating in-Plant DP testing results.

The recent NRC-sponsored full DP stroke-testing of MOVs also suggests that some vendor design equations utilized in sizing MOVs do not produce conservative results under all conditions. In order to retain confidence in current design equations, PGE plans to conduct instrumented in-Plant DP tests and obtain DP test results from other utilities. The results of these tests will be compared with design review calculations and any discrepancies found will be resolved.

The proposed six-year schedule calls for design review of MOVs prior to scheduled testing. Once complete, testing results will be compared to the design review such that discrepancies found can be incorporated into future design reviews.

[1] Information Notice No. 90-40, "Results of NRC-Sponsored Testing of Motor-Operated Valves", dated June 5, 1990.

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MOV operability at Trojan will not be adversely affected by the adoption of a six-year schedule as opposed to the recommended five-year schedule. Current MOV activities, including the three-year preventive maintenance program, six-year actuator refurbishment program, EQ component replacement, and receipt inspection of actuator parts, ensure that MOV settings are consistent with the design basis and the MOVs are maintained and stroke-tested to demonstrate operability.