

Washington Public Power Supply System

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REGION V IAE

Mr. J. B. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
10CFR50.55(e) REPORTABLE CONDITION #303
INCORRECT INSTALLATION OF SOLENOID OPERATED
CONTAINMENT ISOLATION VALVES

Reference: Telecon dated 12/2/83, R.T. Johnson to D. Haist, same subject.

In accordance with the provisions of 10CFR50.55(e), your office was informed by the reference of the above subject condition. The attachment provides the Project's final response on Condition #303.

If there are any questions concerning this matter, please contact Roger Johnson, WNP-2 Project QA Manager, (509) 377-2501, extension 2712.

BC Sorensen

G. C. Sorensen
Manager, Regulatory Programs

JGT/kd

Attachment: As stated

cc: W.S. Chin, BPA
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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #303
INCORRECT INSTALLATION OF SOLENOID
OPERATED CONTAINMENT ISOLATION VALVES

FINAL REPORT

Description of Deficiency

Several small solenoid operated primary containment isolation valves were found installed such that containment pressure would act to unseat the valve. Thus, during a design basis isolation event, these valves would leak excessively.

Date and Method of Discovery

This deficiency was first identified to Burns and Roe on November 15, 1983 and was reported by Burns and Roe as a Part 21 in letter BRGO-RO-83-13. Excessive valve leakage was originally identified by the Supply System Test and Startup organization during local leak rate testing as required by 10CFR50 Appendix J.

Safety Implication

Excessive isolation valve leakage during a design basis isolation event could result in exceeding 10CFR100 limits regarding radiation dose at the Site boundary.

Cause of the Deficiency

The cause of this deficiency is that Burns and Roe, Inc. did not provide sufficient instructions to the installation contractors to assure proper orientation of the valves. However, this was due, in large part, to the sequence of design, procurement and installation. That is, the installation contractors were also responsible for procurement of the isolation valves in accordance with general specification requirements. The requirement for a specific installation orientation could only be determined after a specific manufacturer and valve type were selected by the contractor. It could be argued that the contractor was responsible for correct orientation since he did the procurement.

Applicability to Other Projects

This type of deficiency is potentially applicable to other projects. However, 100 percent functional (leakage) testing as required by 10CFR50 Appendix J would preclude it from remaining undetected. That is, all incorrectly installed solenoid operated isolation valves would be identified due to excessive leakage and would be corrected.

Action to Prevent Recurrence

A complete review of the installed orientation of all solenoid operated containment isolation valves was performed. All deficiencies were identified and corrective action taken through design modification (PED).

Corrective Action

Design Changes (PED's) have been issued to correct the installed orientation for 34 deficient valves and all work has been completed to-date.