

Washington Public Power Supply System

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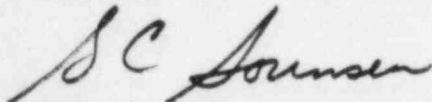
Mr. J. B. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
10CFR50.55(e) CONDITION #299
ROOM PRESSURIZATION DUE TO HIGH ENERGY LINE BREAKS

- References: 1. Letter BRG0-R0-83-013, dated September 29, 1983, W.G. Conn to Office of Inspection and Enforcement.
2. Letter BRG0-R0-83-015, dated November 18, 1983, W.G. Conn to Office of Inspection and Enforcement.

In accordance with the provisions of 10CFR21, the Commission was informed of the subject condition by the above references. The attachment provides the Project's final report under the provisions of 10CFR50.55(e) on Condition #299.

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



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 #299
ROOM PRESSURIZATION DUE TO HIGH ENERGY LINE BREAKS

FINAL REPORT

Description of Deficiency

Plant modifications implemented for fire protection and other concerns, included blocking of some vent paths from Reactor Building rooms containing high energy lines. Room pressurization calculations were not updated to reflect the revised venting capability.

Safety Implication

Decreased vent area results in higher room pressure following a High Energy Line Break (HELB) which could cause wall/floor failure with attendant damage to safety related components. The condition is, therefore, considered reportable under 10CFR50.55(e) and Part 21 criteria.

Cause of Deficiency

Failure to recognize that reducing room vent paths could have adverse safety implications.

Corrective Action

All Reactor Building Rooms containing high energy lines were evaluated as to vent area changes. Six rooms were determined to require analysis.

The reanalysis has shown that one room (R206C) cannot withstand calculated pressurization following a postulated high energy line break (HELB). This room is actually a pipe chase that has one cement block wall for shielding purposes. Pressurization following a HELB would cause the block wall to fail, impacting primarily electrical conduit. Failure of the block wall in no way affects structural integrity of the building.

A safe shutdown analysis has been performed assuming the loss of safety related equipment that would be impacted by the falling cement blocks coupled with the loss of an additional worst case single active component. The analysis indicated that the event would preclude safe shutdown. Burns and Roe has, therefore, issued Project Engineering Directive, PED 210A-CS-0743, to permanently remove the top 5'-0" of the existing block shield wall around the pipe chase to provide adequate vent area.

Work is in progress and is scheduled to be complete in time to meet plant operational requirements.

Action to Prevent Recurrence

Group Supervisors have been advised that changes to room vent areas require consideration as to potential effect on room pressurization calculations.

The Plant design is complete and in lieu of the complete review of the Reactor Building to evaluate changes in vent area, no other action to prevent recurrence is considered necessary.