Washington Public Power Supply System
P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

Docket No. 50-397

July 22, 1983
GO2-83-652

Mr. J. B. Martin
Regional Administrator
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
10CFR50.55(e) REPORTABLE CONDITIONS: #212, RAYPROOF DOORS (8-H); AND #262, POWER PIPING REAR BRACKETS

References: 1) Telecon dated September 23, 1982, L.C. Floyd to J. Elin, same subject.

2) Letter GO2-82-863, dated October 22, 1982, R.G. Matlock to R.H. Engelken, same subject.

3) Telecon QA2-83-123, dated June 23, 1983, L.C. Floyd to P. Narbut, same subject.

In accordance with the provisions of 10CFR50.55(e), your office was informed, by telephone, of the above subject conditions. Attachment I provides the Project's revised final report on Condition #212 and Attachment II provides an interim response on Condition #262. We will continue to provide your office with quarterly updates on Condition #262 until resolved. The next report will be provided by October 21, 1983.

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

C. S. Carlisle
Program Director, WNP-2

LCF/kd

Attachments: (2) As stated

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Attachment I

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #212
RAYPROOF 8-H SPECIAL DOORS

REVISED FINAL REPORT

Description of Defect or Noncompliance

Interior watertight doors failed leak tests when they were subjected to hydrostatic pressure applied in a direction which unseats the door from the frame. These doors are required to provide watertight construction between pump rooms housing safety related equipment in the basement of the reactor building.

Safety Implication

Pump rooms in the reactor building basement are designed such that flooding in one pump room is confined to that room, and therefore, does not affect redundant trains of safety-related equipment located in other rooms. These rooms are inter-connected by doors designed to remain watertight during flooding resulting from postulated breaks in piping. If these doors were to leak, redundant trains of safety-related equipment could be disabled through one or more of the following:

a. Flooding in a particular safety-related pump room could disable redundant safety-related equipment in an adjacent pump room,

b. Flooding in the CRD/condensate pump room (Rooms R-9/R-10) could cause simultaneous loss of HPCS and RHR B systems, and

c. Flooding in any pump room due to a leak in suction piping from the suppression pool could result in lowering of the suppression pool water level to a point where suction to redundant ECCS piping systems is lost.

Cause

Design error on the part of Rayproof, who is a subcontractor to Peter Kiewit Sons (Contract 210A). The 8-H doors as designed and manufactured, did not meet specification requirements of being watertight from either side.

Corrective Action

The 8-H doors as designed and manufactured are acceptable for watertightness for flooding applied to the hinge side of the door (pushes door into gasket). Based on this acceptability, the Project has decided to have 5 additional doors and frames manufactured. The 5 doors to be manufactured, designated R6a, R7a, R9a, R10a, and R11a, are counterpart doors and are installed on the opposite side of the opening to doors R6, R7, R9, R10 and R11. This will provide double doors so that in the event of flooding, on either side of a wall with a double door arrangement, the door will be pushed into the gasket providing a water tight seal. The new doors are identical to the counterpart doors with the exception that key operated auxiliary locks will not be provided, and the hinge will be on the opposite side from its counterpart (left hand vice right hand).

For flooding in the NE stairwell due to, for example, a break in the condensate line which is routed through the stairwell, flooding would occur in both the RHR-C pump room and the LPCS pump room due to leakage around the single doors. This flooding would be acceptable, however, since even if all equipment in these two rooms were lost (assuming sump pumps were not capable of keeping up with the leakage around the doors) there would still remain redundant systems (HPCS, ADS, and RHR A and B) to bring the plant to a safe cold shutdown following a single failure which could preclude the availability of either HPCS, RHR-A or RHR-B.

Action to Prevent Recurrence

Contract 210A, Peter Kiewit Sons, and their subcontractor, Rayproof, have been demobilized and are no longer performing active work on site. This action precludes any possibility of recurrence of the above described deficiency as Rayproof was the only supplier/manufacturer of the 8-H doors for WNP-2.

Current Status

All of the additional 8-H doors have been manufactured, tested, shipped to the site, and installed in place and the installation inspected and accepted.

Attachment II

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #262
POWER PIPING M-146 REAR BRACKETS

Interim Report

Description of Deficiency

The Power Piping M-146 rear brackets were substituted for the previously approved and no longer available, M-142 brackets. Upon receipt of the M-146 brackets, the Construction Manager, Bechtel Power Corporation, issued for use and installed the M-146 brackets prior to the Architect Engineer (AE) approval of the Load Capacity Data Sheets. Subsequent to the issuance for use and installation of the M-146 brackets, the AE disapproved Power Piping M-146 rear bracket sizes 15, 20, 25, 40, and 50. Sizes 60 and 80 were approved.

Safety Implication

The M-146 brackets are used in applications designed for dead weight and/or seismic loads. The failure of one or more brackets could result in an over-stressed piping condition and subsequent system failure. This condition is considered to be reportable under the provisions of 10CFR50.55(e)

Cause

At the present time, the cause appears to be that the Construction Manager (Bechtel Power Corporation) issued for construction a component that was not approved for use by the AE. A specification review is being performed to determine if AE approval is required for that component type.

Corrective Action

The Construction Manager (Bechtel Power Corporation) has placed the M-145 bracket on hold until approval by the AE is issued (this may be on a case by case basis). Additionally, a program has been initiated in which Bechtel will identify to the AE those applications where an unapproved M-146 Power Piping brackets have been installed. The AE will then determine, either on a case by case or worst case evaluation, if the installation is acceptable. For those cases determined unacceptable, the brackets will be replaced or reworked as directed by the AE.

Action to Prevent Recurrence

The action to prevent recurrence cannot be determined until completion of the specification review described above.