

## Washington Public Power Supply System

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

June 26, 1981  
G02-81-0158

RESPONDS TO: N/A

RESPONSE REQUESTED BY: N/A

Docket No. 50-397

Mr. R. H. Engelken, Director  
U. S. Nuclear Regulatory Commission  
Region V  
Suite 202, Walnut Creek Plaza  
1990 North California Blvd.  
Walnut Creek, CA 94596

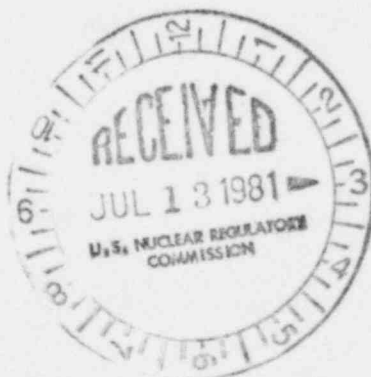
Dear Mr. Engelken:

Subject: SUPPLY SYSTEM NUCLEAR PROJECT NO. 2  
REPORTABLE DEFICIENCY - 10CFR50.55(e)  
MOTOR IN LIMITORQUE DC VALVE OPERATORS  
WITH CLASS B INSULATION

Reference: G02-80-237, D. L. Renberger to R. H. Engelken,  
dated October 30, 1980

The above reference document reported to you a 10CFR50.55(e) deficiency involving a Limitorque DC valve operator with Class B insulation. The subject operator is safety-related, but was not qualified to the project Quality Class I requirements.

As corrective action, we committed not only to replace the non-complying equipment with a properly qualified one, but also to review the qualification status of all safety-related DC motor operators. The review process has revealed five additional safety-related motor operators which were not qualified as Quality Class I. Attached is our safety evaluation of the above non-compliance.



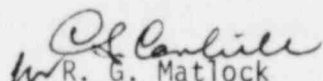
IE27  
S1/1

8107140770 810626  
PDR ADOCK 05000397  
S PDR

June 26, 1981  
G02-81-0158

For additional information, please contact us.

Very truly yours,

  
R. G. Matlock  
Program Director  
WNP-2

BHS:kjf

Attachment

cc: WS Chin - BPA  
ND Lewis - EFSEC, Olympia  
TA Mangelsdorf - Bechtel 954K  
AI Cygelman - B&R Site 901A  
RE Snaith - B&R NY  
AD Toth - NRC Resident Inspector  
JJ Verderber - B&R NY  
JC Plunkett, Jr. - NUS Corporation  
A. Schwencer - NRC  
WNP-2 Files

WASHINGTON PUBLIC POWER SUPPLY SYSTEM  
DOCKET NO. 50-397  
LICENSE NO. CPPR-93

---

REPORTABLE DEFICIENCY AND CORRECTIVE ACTION  
FOR MOTORS IN DC VALVE OPERATORS WITH CLASS B  
INSULATION NOT QUALIFIED TO IEEE-382

---

NATURE OF DEFICIENCY

As committed to in our report dated October 30, 1980, a review of all safety-related DC valve operators has been made. The motor operators of five additional valves were found to be not qualified to IEEE Std 382, which is an implementing standard for valve motor operators in order to meet IEEE Std 323. Not in compliance with the project Quality Class I requirements, as specified in the purchase contract, these motor operators are for the following isolation valves:

RCIC-V-10  
RCIC-V-45  
RCIC-V-59

RCIC-V-68  
RHR-V-40

The operators for the above valves have DC motors with Class B insulation and were manufactured by Porter-Peerless. Limitorque has type-tested (to IEEE Std 382) valve operators with Porter-Peerless DC motors having Class H insulation and those with Reliance AC motors having Class B insulation. But no qualification tests have been made for those with DC motors having Class B insulation. It is difficult, if not impossible, to establish qualification of the subject motors by analogy based on the existing type tests alone.

SAFETY IMPLICATIONS

As mentioned in our previous report, the RCIC system serves as a redundant back-up to the HPCS in the single case of the Rod Drop accident. The RCIC system is also required to maintain reactor water inventory during a reactor hot standby mode and during normal or forced shutdown when feedwater flow is lost. Valve RCIC-V-10 is the RCIC pump suction valve from the condensate tank, which is the normal source of cooling water. RCIC-V-45 is the RCIC turbine steam admission valve, whereas RCIC-V-68 is the turbine exhaust valve to the suppression pool. All the above isolation valves are required for the proper operation of the RCIC system.

RCIC-V-59 is not required for RCIC operation, but needs to be opened during a system test. It serves as a redundant isolation valve for the test line which crosses the pressure boundary. RHR-V-40 is likewise opened during flushing of RHR loop B, prior to shutdown cooling, and is a redundant isolation valve for the flush line which crosses a pressure boundary and which communicates with the reactor during long time reactor cooling conditions.

From the above discussion, it is concluded that the lack of Quality Class I qualification of the motor operators for RCIC-V-10, RCIC-V-45, RCIC-V-59, RCIC-V-68 and RHR-V-40 could jeopardize the safety of plant operations.

#### CORRECTIVE ACTION

Motors for valve operators RCIC-V-10, RCIC-V-45, RCIC-V-59, RCIC-V-68, and RHR-V-40 will be replaced with qualified motors such as Porter-Peerless DC motors with Class H insulation. WNP-2 has requested Velan Valve Company and Anchor Darling, the valve manufacturers, and Limitorque, the operator manufacturer, to provide technical guidance for all field construction work. A follow-up letter will be submitted on November 2, 1981 on progress of corrective action.