

### Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000  
Docket No. 50-397

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December 17, 1982  
G02-82-989

Mr. R. H. Engelken  
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 CONDITIONS #210, EMERGENCY DIESEL  
GENERATORS DG-1 AND DG-2 AIRSTART CIRCUITS; AND  
#218, MSIV-LCS

- References:
1. Telecon L.C. Floyd to J. Elin, dated August 30, 1982
  2. Interim Report G02-82-819, R.G. Matlock to R.H. Engelken, dated September 30, 1982
  3. Telecon, M.E. Rodin to R. Dodds, dated November 18, 1982

In accordance with the provisions of 10CFR50.55(e), your office was informed of the above subject conditions on August 30, 1982 and November 11, 1982. Attachments A and B provide the Project's final reports on Conditions 210 and 218.

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

*R.G. Matlock*  
R. G. Matlock  
Program Director, WNP-2

LCF/kd

- Attachments:
- A. Final Report - 10CFR50.55(e) Condition #210
  - B. Final Report - 10CFR50.55(e) Condition #218

- cc:
- W.S. Chin, BPA - Site
  - A. Forrest, Burns and Roe - HAP0
  - N.D. Lewis, NRC
  - J. Plunkett, NUS Corp.
  - R.E. Snaith, Burns and Roe - NY
  - A. Toth, WNP-2 Resident Inspector (917Q)
  - Document Control Desk, NRC
  - WNP-2 Files (917B)

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## ATTACHMENT A

WASHINGTON PUBLIC POWER SUPPLY SYSTEM  
NUCLEAR PROJECT NO. 2  
DOCKET NO. 50-397  
LICENSE NO. CPPR-93  
EMERGENCY DIESEL GENERATORS DG-1 AND DG-2  
AIRSTART CIRCUITS  
10CFR50.55(e) CONDITION #210

## FINAL REPORT

### DESCRIPTION OF DEFECT OR NONCOMPLIANCE

Each diesel generator has two air receiver tanks which provide the air to start the diesels. The airstart circuit (K-17) selects between these two tanks when a diesel airstart is required. The K-17 circuit could fail in its function and not give either tank the signal to discharge air to start the diesel due to low coil current causing the silver plated contacts to oxidize (contacts stick).

### SAFETY IMPLICATION

The inability to start the diesel generators during a loss of off-site power or during a postulated accident could adversely affect the safe shutdown of the plant.

### APPROACH TO RESOLUTION

Discussions with the manufacturer (Potter Brumfield) on their MD-5089 relay, indicate that they have had this type of problem on other relays. They recommend replacing the silver plated contacts with gold plated contacts.

### CURRENT STATUS

The Supply System Equipment Qualification Group has evaluated the manufacturers recommended corrective action and has determined that both the seismic and environmental status of the relays will be unaffected by the use of gold plated contacts, and the use of gold plated contacts will ameliorate the present oxidation of the contacts. A Project Engineering Directive has been issued to replace the K-17 relay with the same type relay using gold contacts.

## ATTACHMENT B

WASHINGTON PUBLIC POWER SUPPLY SYSTEM  
NUCLEAR PROJECT NO. 2  
DOCKET NO. 50-397  
LICENSE NO. CPPR-93  
MAIN STEAM ISOLATION VALVE LEAK CONTROL SYSTEM  
10CFR50.55(e) CONDITION #218

### FINAL REPORT

#### DESCRIPTION OF DEFICIENCY

WNP-2 design incorporates a leakage control system past the MSIV's in order to minimize the release of fission products if the MSIV's were to seat poorly. Suction would normally be taken off the piping downstream of the outboard MSIV, and discharged into the Standby Gas Treatment System (SGTS). It has been discovered that a valve, MS-V-146, on one of the branch pipes is not powered from a critical bus. Post-LOCA, one could not assume it would close, nor could one assume the piping past the valve, ANSI B.31.1, would remain intact.

The fans associated with each MSLC system are designed for 50 cfm flow at 20" of water. Of this flowrate, about 10% is leakage from the main steam lines, the balance is diluent air. This amount of steam does not affect the Standby Gas Treatment System Operation. However, this flowrate is too small to create a face velocity of sufficient magnitude to assure in-leakage of Turbine Building atmosphere into a 24" pipe. Thus, the fan of the outboard MSLC will not create sufficient suction pressure and line velocities to assure that backflow of fission products past this open valve to the atmosphere and hence to the site boundary does not occur.

#### ANALYSIS OF SAFETY IMPLICATION

As stated above, the function of the MSLC system is to prevent potential leakage of containment atmosphere through closed main steam isolation valves from reaching the site boundary without filtration after a LOCA. It is postulated that after a DBE, the non-seismic Class I steam piping will no longer be intact. An open path to the Turbine Building atmosphere will be created.

This leakage is postulated to occur at a rate of 11.5 ft /hr per steam line due to poor seating of the MSIV's. The fission products in this leakage stream, were they to reach the site boundary without filtration, could result in off-site doses which are a substantial fraction of 10CFR100 valves.

#### CORRECTIVE ACTION

A Project Engineering Directive (PED) will be issued to power valve MS-V-146 from a critical bus to assure that MSIV-LCS can perform its intended function when required.