

RECEIVED
NRC

Washington Public Power Supply System

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

1983 DEC 22 AM 11:13

December 16, 1983
G02-83-1168

REGION V/126

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 #306
HYDROGEN RECOMBINER SCRUBBER DRAINAGE PROBLEM

Reference: Telecon conference call, dated December 15, 1983, G.H. Ross,
R.T. Johnson, G.K. Afflerbach, WNP-2 and D. Willett, Region V.

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 #306.

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

AC Johnson
G. C. Sorensen
Manager, Regulatory Programs

JGT/kd

Attachment: As stated

cc: W.S. Chin, BPA
N.D. Lewis, EFSEC
A. Toth, NRC Resident Inspector
Document Control Desk, NRC

8401040333 831216
PDR ADOCK 05000397
S PDR

IE27
1/1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #306
HYDROGEN RECOMBINER SCRUBBER DRAINAGE PROBLEM

FINAL REPORT

Description of the Deficiency

Drainage from the recombiner scrubber (CAC-AW-1A/1B) is impaired by the design configuration on the recombiner skid of connections for the water loop seal and the process blower CAC-FN-1A/1B. The elevation difference between the loop seal connection and the blower is insufficient to overcome the negative pressure in the blower container allowing clearing of the drain lines.

Safety Significance

The hydrogen recombiners are a portion of the equipment which forms the Containment Atmospheric Control System. The system is intended to provide control of hydrogen and oxygen generated following a LOCA. The redundancy of the equipment in the system is intended to prevent a single active failure from precluding system availability.

The deficiency precludes operation of the scrubber as evaluated in the containment atmospheric control system failure analysis (FSAR - Page 6.2-149). The condition is therefore considered a significant deficiency in the final design as approved for construction such that the design does not conform to the criteria and basis stated in the Safety Analysis Report and is therefore reportable under the provisions of 10CFR50.55(e).

Cause of Deficiency

The recombiner was shop tested and accepted under the Burns and Roe, Inc. (BRI) Supplier Surveillance Program. The manufacturer, Industrial Air Products and Chemical, Inc. of Allentown, Pennsylvania, had to test the units several times and experienced similar drainage problem. They made modifications to the units and they passed the acceptance test; however, the test had (1) specific exception that the loop seal drain could not be installed such that the unit could be tested in its present configuration. The condition is considered to be a design deficiency (Part 21) on the part of the supplier unique to WNP-2 which was not discovered during acceptance testing.

Corrective Action

Supply System Engineering is revising the drainage piping configuration to assure water cannot be entrapped in the unit due to the blower suction pressure. (Ref. SPED S215-M-6860).

Completion of this work is not required for fuel load, but will be completed prior to establishing primary containment integrity for power ascension testing.

Action to Prevent Recurrence

Startup testing is intended to provide functional verification of the design and remains the principal tool to identify latent problems. The Suppliers Quality Assurance Program and the Owners AE Surveillance Program were intended to preclude this type deficiency. All major equipment covered by these programs has been installed and is being tested; therefore, no action to prevent recurrence is appropriate.