U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/84-21

Docket No. 50-397

License No. NPF-21

Licensee: Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Facility Name: WNP-2

Inspection at: WNP-2 Site, Benton County, Washington

Inspection conducted: June 25-29 and July 16-20, 1984

Inspectors: R J Dodds for — 8/21/84
D. J. Willett, Reactor Inspector — Date Signed

Andrew Hon — 8/21/84
A. Hon, Reactor Inspector — Date Signed

R J Dodds for — 8/21/84
R. Waite, Resident Inspector — Date Signed

Approved By: R J Dodds — 8/21/84
R. T. Dodds, Chief — Date Signed
Reactor Projects Section 1

Summary:

Inspection on June 25-29 and July 16-20, 1984 (Report No. 50-397/84-21)

Areas Inspected: Routine, unannounced safety inspections of technical specification surveillance and calibration activities, follow-up observation of operating crew performance, bulletin follow-up, follow-up of previous inspection findings, operator training and follow-up of TMI (NUREG-0737) items. The inspections involved a total of 125 onsite hours by four NRC inspectors.

Results: Of the six areas inspected, no violations or deviations were identified.

## DETAILS

1. Persons Contacted

+J. W. Shannon, Director, Power Generation
+*J. D. Martin, WNP-2 Plant Manager
+*G. K. Afflerbach, Assistant Plant Manager
+M. M. Monopoli, Manager, Assurance Programs
+D. H. Walker, Plant Quality Assurance Manager
+R. E. Partrick, Acting Plant Administrative Manager
+V. E. Shockley, HP/Chem Support Supervisor
+R. L. Corcoran, Plant Operations Manager
+C. M. Powers, Plant Technical Supervisor
+M. Mills, Washington State EFSEC Administrator
*J. Peters, Plant Administrative Manager
*R. Mertins, Compliance Engineer
N. L. Hancock, Shift Manager
J. R. Sampson, Shift Supervisor
M. Gallagher, Control Operator
F. L. Walton, Planner and Scheduler
K. E. Worthen, Shift Manager

The inspectors also held d scussions with and observed the performance of other licensee and contract personnel during these inspections. These included licensed and non-licensed operators, plant staff engineers, technicians, administrative assistants and quality assurance personnel.

+Denotes those personnel present during the exit interview on June 29, 1984.

*Denotes those personnel present during the exit interview on July 20, 1984.

2. Bulletins

IEB 78-14 (Closed): "Deterioration of Buna-N components in Asco solenoids." The requirements of this bulletin are to: determine the installation time, material and packaging time, and developed a schedule for replacement. The licensee has implemented as part of their scheduled maintenance system (SMS), a program to change out 25% of the Buna-N components per year starting in April 1986. This schedule will perpetuate six year change out cycle (Supply System letter J. A. Landon to C. H. McGilton July 2, 1984). This program and schedule satisfies the requirements of the bulletin.

IEB 80-14 (Closed): "Scram discharge volume degradation." The requirements of this bulletin, when issued, were applicable to operating plants as an interim precaution. Bulletin 80-17 and it's supplements 1 to 5 address the issues of Bulletin 80-14, which are applicable to WNP-2. The requirements of Bulletin 80-14, have been addressed and closure is documented in IE Inspection Report 50-397/80-03.

IEB 83-07 (Closed): "Ray Miller fraudulent products (pipe)." This bulletin requires the licensee to:

1. Identify those companies on the lists (attached) that supplied materials or services to WNP-2.

2. Determine whether any of the apparently fraudulent material was provided to or used at WNP-2.

The Supply System has determined, through a search of it's purchases and procurement document review by suppliers and contractors and their subcontractors, that there has been no usage of Ray Miller Inc. supplied materials in the construction of WNP-2 (letter G. C. Sorensen to J. B. Martin, NRC, February 8, 1984).

3. Follow-up Items

83-07-01 (Closed): The five emergency diesel generator load tests have been satisfactorily completed during loss of power testing.

83-12-02 (Deleted): The steam condensing mode of operation for the residual heat removal system has been deactivated. NRR has concurred in this action in Safety Evaluation Report Number 0892, Supplement No. 4, Part 5, Item 5.4.2.

83-12-03 (Closed): Inconsistent criteria for high pressure core spray flow and discharge pressure in the FSAR has been corrected in FSAR Amendment No. 31 (1550 gpm at 1145 psia).

4. Special Team Inspection Control Room Observation Follow-up

Three inspectors, two of which participated in the May/June special team inspection, conducted a follow-up inspection of operating crew performance. This follow-up inspection covered mid day and swing shifts during a two day period. The inspectors observed the turnover of information with respect to the status of systems, equipment and operational activities during shift changes between Shift Managers, Shift Supervisors, Control Operators and Auxiliary Operators. Operator response to alarms, adherence to procedures and controls, work practices, log entries and awareness of plant/systems status were also monitored.

The overall operating crew performance did not differ significantly from that reported for the previous special team inspection (RPT No. 50-397/84-15).

The following observations resulted from this inspection:

- A fire alarm on the fire alarm panel (FCP-1) was sealed in; there was no information tag on the alarm. A control operator stated that the reason for the alarm was because solvents being used for RHR pump repairs were affecting the detector. The inspectors tour of the area could not confirm the cause. Additional special precautions to compensate for the continuous alarm were not apparent.

- One of the power supply power available indication lights was burned out and the other was missing on FCP-1 for the turbine/generator east and west ultra violet fire detection system.

- The control room air intake chlorine chart recorder (WOA-XR-1) was found to be turned off as of 1840 on June 27, 1984, and remained off until the Shift Supervisor was informed by the NRC inspector at 0700 on June 28, 1984.

- No mention of the control room air intake chlorine chart recorder being found turned off was entered in the Shift Managers or Control Operator's logs.

- Operations personnel did assure proper relief when leaving the "operator at the controls" boundary.

The licensee acknowledged these observations and agreed to consider them in conjunction with similiar findings from the previous team inspection.

5. Surveillance Testing and Calibration Control Program

The surveillance and calibration control program was reviewed to verify implementing of a program for control and evaluation of surveillance testing, calibration and inspections required by technical specifications and inservice inspection, including safety-related instrumentation not specifically identified in technical specifications.

A master schedule for surveillance testing/calibration/inservice inspection has been established which includes the frequency for each test/calibration/inspection; the group responsible for performing the activity and maintaining the activity status. The program, called the scheduled maintenance system (SMS), maintains a solid schedule, activities scheduled on a fixed anniversary date rather than a fixed frequency.

Responsibilities have been assigned in writing for maintain the schedule up to date and assuring technical specification and license revisions are reflected in a timely fashion. The SMS program provides a history of testing and maintenance activities. The program is divided between operational surveillance, electrical and instrumentation and controls supervisors. One unique aspect of the surveillance procedures is the numbering system which identifies the specific technical specification requirement in the procedure number. This method appears to provide additional assurance that all technical specification requirements and aspects are addressed. Additionally, the Supply System is refining the surveillance procedures to accommodate the constraints of various reactor modes (mode specific procedures).

Formal methods and responsibilities have been developed and defined in administrative procedure 1.5.1 (Technical Specification Surveillance Testing Program) for review and evaluation of surveillance test/calibration data including procedures for reporting deficiencies, failures and malfunctions identified during tests and inspections.

No violations or deviations were identified.

6. Procedure Changes and Required Reading for Operations Personnel

The inspector examined the licensee's program for assuring that changes to procedures and other essential operating information is being reviewed in a timely manner. Quality Assurance had previously identified deficiencies in this area. In response, the changes to procedures in Volumes 1, 4, 5, and 13 will now be reviewed during the week the shift is dedicated to training. These procedures are the areas the operators are expected to know intimately. The procedures contained in Volumes 2, 3, 6, and 7 should be in the operators hand or immediately reviewed at the time of usage.

The inspector verified that these procedure changes were now being reviewed by an examination of the Required Reading book at the Training Center. However, the Required Reading book in the Control Room still contained copies of revised procedures that had been issued last March that have not yet been signed off by all Control Room personnel, principal of which was one Shift Manager. This manager did indicate that he had reviewed the procedure changes but apparently had neglected to initial the individual sign-off sheets. The Operations Supervisor stated that the status of review of these procedures will be evaluated.

It was noted that the Night Order Log Book contained entries by the Operations Supervisor to direct attention to significant changes in procedures or to the activation of new procedures when a system was placed in service. Representative of this was the activation of the Control Room emergency ventilation chillers on May 30, 1984.

No violations were identified.

7. TMI (NUREG-0737) Activities

(Open) TMI Action I.C.1: Guidance for the Evaluation and Development of Procedures for Transients and Accidents.

The licensee is required to analyze transients and accidents, prepare emergency procedure guidelines, upgrade emergency procedures, including procedures for operating with natural circulation conditions, and to conduct operator retraining. Emergency procedures are required to be consistent with the actions necessary to cope with the transients and accidents analyzed.

WNP-2 participated in GE Owners' Group to develop Emergency Procedure Guidelines which was accepted by NRR. The operating license was conditioned to require that both the procedure generation package and the detailed control room design review program plan contain a detailed description of the function and task analysis effort, or that the detailed description be provided in one document with suitable cross-reference to the other document. The licensee submitted a methodology for systematic determination of operator information and control needs. In SSER No. 5, the staff concludes that the detailed description of the function and task analysis is acceptable.

In order to verify the proper implementation of the Owners' Group Guideline, the inspector requested a copy of the guideline for in office inspection, the plant procedure will be reviewed during a future inspection.

(Open) TMI Action II.B.2: Design Review of Plant Shielding and Environmental Qualification of Equipment for Spaces/Systems which may be used in Post-Accident Operations.

Each licensee is required to provide for adequate access to vital areas and protection of safety equipment by design changes, increased permanent or temporary shielding, or post-accident procedural controls. The design review shall determine which types of corrective actions are needed for vital areas throughout the facility.

Based upon its review of the applicant's shielding design review of WNP-2. NRR concluded in the SER that WNP-2 meets the criteria of Item II.B.2 for personnel access to the plant during post-accident operations. Furthermore, NRR concluded in the SSER No. 5 that the environmental qualification of electrical equipment important to safety and safety-related mechanical equipment is acceptable. No outstanding issues were identified.

This item will remain open until a future inspection can verify the implementation of this action by sampling some of the modifications.

(Open) TMI Action I.D.1: Control Room Design Reviews.

In accordance with Task Action Plan I.D.1, Control Room Design Reviews (NUREG-0660), all licensees and applicants for operating licenses will be required to conduct a detailed control room design review to identify and correct design deficiencies. This detailed control room design review is expected to take about a year. Therefore, the Office of Nuclear Reactor Regulation (NRR) requires that those applicants for operating licenses who are unable to complete this review prior to issuance of a license make preliminary assessments of their control rooms to identify significant human factors and instrumentation problems and establish a schedule approved by NRC for correcting deficiencies. These applicants will be required to complete the more detailed control room reviews on the same schedule as licensees with operating plants.

WNP-2 submitted a control room design review preliminary report that satisfied the requirement for a preliminary design assessment in April 1983. From an onsite design evaluation audit and discussion with the licensee NRR issued Licensing Conditions in Attachment 2 to operating license requiring further licensee actions. Two of the items are related to control room design.

Item 1 requires, the licensee to submit 1) a program plan for detailed control room design review for staff review within two months after the issuance of operating license, and 2) a summary report not later than six months prior to the first refueling outage. WNP-2 submitted the program plan on February 17, 1984 with a letter G02-84-81. However, the summary report is still under preparation for the deadline of six months prior to first refueling outage.

Item 2 identified 20 human engineering deficiencies. Thirteen of these must be corrected prior to exceeding five percent of the rated thermal power. The other seven must be corrected within four months after the issuance of operating license. WNP-2 addressed these requirements in letters G02-84-153, dated March 19, 1984, and G02-84-236, dated April 17, 1984.

This action item is considered open until the summary report is submitted.

No items of violations were identified.

(Open) TMI Action II.E.4.2: Containment Isolation Dependability.

The licensee is required by this action to evaluate related issues of diversity in parameters, essential/nonessential systems identification, isolation of nonessential systems resetting of containment isolation signals, and purge valves.

Upon reviewing licensees submittal, NRR concluded in SSER No. 2 that WNP-2 was not in compliance with the requirement. This was because the licensee had not submitted information concerning purge valve operability under LOCA loads. The outstanding issue related to purge valve operability was subsequently addressed in SSER No. 4 by a change to the technical specifications that limits the valve opening to 70° (Section 3.6.18 - Drywell and Suppression Chambers Purge System, Limiting condition for operation and section 4.6.1.8 - surveillance requirements).

This item will remain open until pending verification that the above technical specification has been incorporated in the operaitng procedure and that surveillance requirements have been established.

No violations or deviaiots were identified.

8. Exit Interview

The inspectors met with representatives (denoted in paragraph 1) at the conclusion of the inspections on June 29 and July 20, 1984. The scope and findings of these inspections were discussed during the exit interviews, and are summarized in paragraph 1 through 7 of this report.