U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No: 50-397/87-27

Docket No: 50-397

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

Facility Name: Washington Nuclear Project No. 2 (WNP-2)

Inspection at: WNP-2 Site near Richland, Washington

Inspection Conducted: October 1 - November 5, 1987

Inspector: for P. H. Johnson 12/3/87
C. J. Bosted, Senior Resident Inspector Date Signed

Approved by: P. H. Johnson 12/3/87
P. H. Johnson, Chief Date Signed
Reactor Projects Section 3

Summary:

Inspection on October 1 - November 5, 1987 (50-397/87-27)

Areas Inspected: Routine inspection by the resident inspector of control room operations, engineered safety feature (ESF) status, surveillance program, maintenance program, licensee event reports, special inspection topics, and licensee action on previous inspection findings. During this inspection, Inspection Procedures 30702, 30703, 35701, 36100, 40700, 40701, 61726, 62702, 71707, 71709, 71710, 71881, 90712, 90713, 92700, 92701, and 92702 were covered.

Results: Two violations were identified: exceeding Technical Specification overtime limitations without authorization (paragraph 3), and conducting a Plant Operations Committee meeting without the minimum Technical Specification quorum (paragraph 13).

DETAILS

1. Persons Contacted

L. Oxsen, Assistant Managing Director for Operations
J. Burn, Director, Engineering
R. Glasscock, Director, Licensing and Assurance
*C. Powers, Plant Manager
J. Baker, Assistant Plant Manager
*R. Corcoran, Assistant Plant Manager (Acting)/Operations Manager
W. Shaeffer, Assistant Operations Manager (Acting)
*K. Cowan, Technical Manager
J. Harmon, Assistant Maintenance Manager
*R. Graybeal, Health Physics and Chemistry Manager
D. Feldman, Plant Quality Assurance Manager
J. Peters, Administrative Manager
P. Powell, Licensing Manager
J. Landon, Maintenance Manager

The inspector also interviewed various control room operators, shift supervisors and shift managers, engineering, quality assurance, and management personnel relative to activities in progress and records.

* Attended the Exit Meeting on November 5, 1987.

2. Plant Status

At the start of the inspection period, the plant was operating near 100% power. The plant operated at this power level throughout the inspection period except for brief periods of time during which power was reduced to approximately 85% while the condensate filter/demineralizers were renewed. On October 10, the acoustic flow monitor for Main Steam Safety Relief Valve MS SRV-2D was declared inoperative and Technical Specification 3.3.7.5 action statement was entered. The Technical Specification requires that two valve position indicators be operable for each safety relief valve. The action statement required that the monitor be repaired within seven days or the plant be shut down. To effect repairs the plant must be shut down so that an entry can be made into the drywell to gain access to the monitor. The licensee applied for and and received an emergency Technical Specification change which allowed the tailpipe temperature for valve SRV-2D to be alarmed and granted relief from the requirement that MS SRV-2D have two position indicators. This relief will continue until the next available outage when repairs can be made.

On October 19, an unusual noise was heard coming from the RPS motor generator (MG) "A". Engineers from the technical staff and members of the plant maintenance staff observed the MG, performed acoustic and temperature tests, and added grease to the MG's bearings. On October 20, another evaluation of the MG led to the decision to replace the MG with a spare unit.

At the end of the inspection period, the plant had operated at power for 102 consecutive days.

3. Previously Identified NRC Inspection Items

The inspector reviewed records, interviewed personnel, and inspected plant conditions relative to licensee actions on previously identified inspection findings:

a. (Closed) Enforcement Item (397/87-09-01): Underwater Light Removed Without A Survey

On two different occasions an underwater light and a television camera were removed from the refueling pool without a survey being performed to detect radiation hazards. The material was surveyed after removal and bagged for contamination control.

The inspector reviewed a letter issued by the plant manager to all station personnel that reinforced the need for compliance with radiological procedures and the role of all station personnel in ensuring radiological safety. The licensee also intends to install a permanent radiation monitor on the refueling bridge. This will be followed up under the normal inspection program. This item is closed.

b. (Closed) Enforcement Item (397/87-09-02): Gas Bottles Were Secured to a Safety Related Support

The inspector identified that 39 gas bottles were stored by attaching them to a safety related cable tray support in the railroad bay of the Reactor Building.

The licensee removed the bottles and a sign was attached to the wall which directed personnel to store the empty bottles on the floor. A directive was also placed in the Radwaste Control Room's standing orders to that effect. Plant procedure 1.3.1 "Standing Orders/Night Orders" was revised to stipulate responsibility for the surveillance and disposition of the empty bottles. These items were reviewed by the inspector and this item is closed.

c. (Closed) Enforcement Item (397/87-09-03): Weekly Source Check Not Performed on Radiation Monitoring Equipment

A weekly source check was not performed on a continuous air monitor on the 606 elevation.

After identifying this item the air monitor was checked and found to be satisfactory and the process that performs the source checks was also reviewed. A letter to all Health Physics technicans was sent by the Health Physics/Chemistry Manager which stressed the details of recent NRC violations and their causes. The letter also emphasized the need for strict compliance with plant procedures.

The inspector reviewed this letter and has inspected the radiation monitoring equipment on numerous occasions and has not found any additional lapses in the source checks. This item is considered closed.

d. (Closed) Enforcement Item (397/87-13-01): Failure to Comply With Receiving Inspection Requirements

Several instances occurred wherein Conditional Release Tags were filled out before the Non Conformance Report (NCR) was fully dispositioned.

Administrative controls over the use of Conditional Release Tags have been changed by a Deviation to Plant Procedures Manual (PPM) 1.3.12 "Plant Problems" and Plant QC Manual PQC-09 to require that an approved completed NCR exists before a Conditional Release Tag is issued. This is insured by QC not releasing the material until receipt of an NCR signed by the Plant Technical Manager and the Plant QA Manager. The plant QC staff and plant technical staff have been informed of these changes by memo. This item is considered close.

e. (Closed) Unresolved Item (397/87-09-04): Overtime Without Authorization

A review of Overtime Authorizations from the first quarter of the year revealed possible problems with authorization of excess overtime. Technical Specifications require that the Plant Manager, his assistant, or higher levels of management authorize exceeding the Technical Specification limits on work hours when the work involves safety related items. Plant procedures allowed the approval to be delegated downward to the Shift Manager.

Management took steps to correct the procedure and issued night orders that directed the Shift Manager to obtain approval via telecon with plant management prior to authorizing the excess overtime. The procedure was revised in August 1987, and incorporated changes which brought the plant procedure in line with the Technical Specifications.

Another review by the inspector of a sample of Overtime Authorizations from the third quarter, which included the end of the refueling outage, indicated that similar problems with the tracking of overtime still existed. A health physics individual working 12 hour days worked 13 hours on June 22. This combined with the previous days' 12 hours exceeded 24 hours in a 48 hour period. No authorization was obtained to exceed 24 hours in a 48 hour period for this day. The next day, June 23, the individual worked another 12 hour day which also exceeded the 24 hours in a 48 hour period, but an authorization was obtained for the second day. Although this individual was not performing safety-related work, this was not in accordance with the licensee's procedures.

The inspector also determined that an electrican worked 10 hours on June 15, and 16.5 hours on June 16. He had authorization to exceed 16 hours in a 24 hour period and 24 hours in a 48 hour period for June 16 only. On June 17, he worked 12 hours on the Main Steam Leakage Control System motor operated valves, a safety related system. These work hours on June 16 and 17 totaled 28.5 hours in a 48 hour period exceeding the Technical Specification limit of 24 hours in a 48 hour period without prior authorization. This is considered a violation of Technical Specification 6.2.2.f. This unresolved item is considered closed and will be followed under Enforcement Item 87-27-01.

4. Operational Safety Verification

a. Plant Tours

The following plant areas were toured by the inspector during the course of the inspection:

- Reactor Building
- Control Room
- Diesel Generator Building
- Radwaste Building
- Service Water Buildings
- Technical Support Center
- Turbine Generator Building
- Yard Area and Perimeter

b. The following items were observed during the tours:

(1) Operating Logs and Records. Records were reviewed against Technical Specification and administrative control procedure requirements.

(2) Monitoring Instrumentation. Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.

(3) Shift Manning. Control room and shift manning were observed for conformance with 10 CFR 50.54.(k), Technical Specifications, and administrative procedures.

(4) Equipment Lineups. Valve and electrical breakers were verified to be in the position or condition required by Technical Specifications and Administrative procedures for the applicable plant mode. This verification included routine control board indication reviews and conduct of partial system lineups.

(5) Equipment Tagging. Selected equipment, for which tagging requests had been initiated, was observed to verify that tags were in place and the equipment was in the condition specified.

(6) General Plant Equipment Conditions. Plant equipment was observed for indications of system leakage, improper lubrication, or other conditions that would prevent the system from fulfilling its functional requirements.

(7) Fire Protection. Fire fighting equipment and controls were observed for conformance with Technical Specifications and administrative procedures.

(8) Plant Chemistry. Chemical analyses and trend results were reviewed for conformance with Technical Specifications and administrative control procedures.

(9) Security. Activities were observed for conformance with regulatory requirements, implementation of the site security plan, and administrative procedures. These activities included vehicle and personnel access, and protected and vital area integrity.

(10) Plant Housekeeping. Plant conditions and material/equipment storage were observed to determine the general state of cleanliness and housekeeping. Housekeeping in the radiologically controlled area was evaluated with respect to controlling the spread of surface and airborne contamination.

(11) Radiation Protection Controls. Areas observed included control point operation, records of licensee's surveys and posting of radiation and high radiation areas within the radiological controlled area, compliance with Radiation Exposure Permits, proper wearing of personnel monitoring devices, and personnel frisking practices.

No violations of NRC requirements or deviations were identified.

5. Engineered Safety Feature System Walkdown

Selected engineered safety feature systems (and systems important to safety) were walked down by the inspector to confirm that the systems were aligned in accordance with plant procedures. During the walkdown of the systems, items such as hangers, supports, electrical power supplies, cabinets, and cables were inspected to determine that they were operable and in a condition to perform their required functions. The inspector also verified that the system valves were in the required position and locked as appropriate. The local and remote position indication and controls were also confirmed to be in the required position and operable.

Accessible portions of the following systems were walked down on the indicated date.

System	Date
Diesel Generator Systems, Divisions 1, 2, and 3.	October 7,29

Hydrogen Recombiners	October 28
Low Pressure Coolant Injection (LPCI), Trains "A", "B", and "C"	October 19,21
Low Pressure Core Spray	October 6,19
High Pressure Core Spray	October 6,21
Reactor Core Isolation Cooling	October 6
Standby Service Water Systems A and B	October 8
Standby Liquid Control (SLC) System	October 19
125V DC Electrical Distribution, Divisions 1 and 2	October 15
250V DC Electrical Distribution	October 15

No violations of NRC requirements or deviations were identified.

6. Surveillance Testing

a. Surveillance tests required to be performed by the Technical Specifications (TS) were reviewed on a sampling basis to verify that: 1) the surveillance tests were correctly included on the facility schedule; 2) a technically adequate procedure existed for performance of the surveillance tests; 3) the surveillance tests had been performed at the frequency specified in the TS; and 4) test results satisfied acceptance criteria or were properly dispositioned.

b. Portions of the following surveillances were observed by the inspector on the dates shown:

Procedure	Description	Dates Performed
7.4.1.5.3	SLC Flow Verification	October 25
7.4.3.3.1.46	Automatic Depressurization System (ADS) Trip System B Reactor Water Level Low - Level 3 Channel Functional Test	October 10
7.4.3.7.5.1	Accident Monitoring Instrumentation Channel Checks	October 11
7.4.6.4.1.2	Drywell Vacuum Breaker Operability	October 11
7.4.7.6.4.1	Plant Fire Hose Station Operability Check	October 11

7.4.7.7.2.2	Fire Door Supervision Functional Check	October 11
7.4.8.3.2	Division 1,2,&3 Breaker Alignment Weekly Check	October 11, 25
7.5.1.4	LPCI Flowpath Verification	October 25

No violations of NRC requirements or deviations were identified.

6. Plant Maintenance

During the inspection period, the inspector observed and reviewed documentation associated with maintenance and problem investigation activities to verify compliance with regulatory requirements, compliance with administrative and maintenance procedures, required QA/QC involvement, proper use of safety tags, proper equipment alignment and use of jumpers, personnel qualifications, and proper retesting. The inspector verified reportability for these activities was correct.

The inspector witnessed portions of the following maintenance activities:

Description	Dates Performed
Infrared scanning of Control Room Panels P609 and P611	October 8
Calibration of Average Power Range Monitor (ARPM) Channel D per PPM 7.4.3.1.1.46	October 8
Installation of Control Room annunciator for Main Steam Safety/relief Valve (MS SRV)-2D tail pipe High Temperature Alarm	October 16
Troubleshooting of Reactor Protection System (RPS) MG 'A' per AV 1480	October 19
Replacement of RPS MG 'A' per AV 1997	October 21
Installation testing of RPS MG'A' per AV 1998	October 23

No violations of NRC requirements or deviations were identified.

7. Radiological Practices

The inspector periodically observed radiological protection practices to determine whether the licensee's program was being implemented in conformance with facility policies and procedures and in compliance with regulatory requirements. The inspector verified that health physics supervisors and professionals conducted frequent plant tours to observe activities in progress and were generally aware of significant plant activities, particularly those related to radiological conditions and/or challenges. ALARA consideration was given each job that was performed during maintenance activities.

No violations of NRC requirements or deviations were identified.

8. Physical Security

The inspector periodically observed security practices to that ascertain the licensee's implementation of the security plans was in accordance with site procedures. The inspector observed that the number of guards was adequate for the requirements of the security plan; that the search equipment at the access control points was operational; that the protected area barriers were well maintained without breaks; and that personnel allowed access to the protected area were badged and monitored and the monitoring equipment was functional. Night illumination inside the protected area was observed and obstructions were lighted adequately. Surveillance equipment was also observed during this inspection.

No violations of NRC requirements or deviations were identified.

9. Licensee Event Report (LER) Followup

The following LERs associated with operating events were reviewed by the inspector. Based on the information provided in the report it was concluded that reporting requirements had been met, root causes had been identified, and corrective actions were appropriate. The below LERs are considered closed.

LER NUMBER	DESCRIPTION
LER 87-02	Reactor Trip Caused By a Loss of Feedwater
LER 87-10	ESF Actuation Caused by Procedural Error

No violations of NRC requirements or deviations were identified.

10. 10 CFR Part 21 Report Followup

The following Part 21 reports associated with conditions identified by the plant and the industry were reviewed by the inspector. Based on this review, it was concluded that the root causes had been identified, and corrective actions were appropriate. The below Part 21 reports are considered closed.

Report Number	DESCRIPTION
83-08-P	Reactor Water Cleanup System Leak Detection
86-18-P	Cracking of Limitorque Switch Rotors
86-19-P	ITE/Gould Disconnect Switch Potential Failure
86-22-P	Deficiencies in Wilmar Undervoltage Relays
86-23-P	MSIV Thrust Bearing Sleeve Failure
86-25-P	Limitorque Supplied Buchanan 724 Terminal Stripes Environmental Qualification
86-26-P	SOR Inc. Pressure Switches Repeatability

11. Review of Periodic and Special Reports

Periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.2 were reviewed by the inspector.

This review included the following considerations: the report contained the information required to be reported by NRC requirements; test results and/or supporting information were consistent with design predictions and performance specifications; and the validity of the reported information. Within the scope of the above, the following reports were reviewed by the inspector.

o Monthly Operating Report for September 1987.

No violations of NRC requirements or deviations were identified.

12. Corporate Nuclear Safety Review Board Meeting

On October 8 and 9, a semiannual meeting of the Corporate Nuclear Safety Review Board was conducted on site. The Board had a large agenda and spent two days on the numerous facets of their review. The inspector observed discussions of the following topics during the proceedings:

Emergency Preparedness	Environmental Monitoring
Off Site Radiological Monitoring	QA Observation on Radiological Control
NRC Inspection Reports	Audit Reports
LER Review	

The members asked detailed questions of the plant staff and appeared to understand the problems experienced in the plant. A review of the meeting minutes was conducted by the inspector for details that occurred when the inspector was not in attendance. Overall, the inspector concluded, the Board performed its chartered function and fulfilled its Technical Specification requirements.

No violations or deviations were identified.

13. Plant Operations Committee

A review of Plant Operations Committee (POC) meetings conducted during the previous four months was performed by the inspector for compliance with the Technical Specifications and PPM 1.1.5 "Plant Operations Committee". The inspector noted that the Technical Specification delineates only members and alternate members of the POC. The Technical Specification lists the members of the POC by work title and describes how to appoint an alternate member. The procedure had added "delegated" and "conditional" members to those listed in the Technical Specification. PPM 1.1.5.3.A.1 states that "A Delegated Member is an individual with a prior written delegation, to act for a permanent member, and may attend all POC meetings during the period of the delegation." The procedure does not specify if the delegate member can act for the member if the member is on site. The delegation authority letter for these individuals stated that the individual was to act as that member in all capacities while the member was not on site.

The minutes of 24 POC's were reviewed. From these reviews the inspector identified that delegated members were used on three occasions when the regular member was on site. These individuals were classified as delegated (i.e., regular) members, not alternates, in the POC minutes. Two of the three meetings had enough other members in attendance to constitute a quorum, but on September 4, 1987, a condition was identified wherein a proper quorum was not established. In the morning meeting held that day, POC 87-35.1, one regular member, an alternate member, and two "delegated" members were in attendance in addition to the Chairman. One delegated member was acting for a regular member who was not on site. Contrary to the delegation letter, the other delegated member, the assistant maintenance manager, acted as and was listed in the minutes as a delegated member even though the maintenance manager (a regular POC member) was on site. The assistant maintenance manager also was not designated by the POC as an alternate member. For this POC meeting, therefore, only the POC Chairman and three other members were officially present. This was less than the quorum (Chairman or Vice Chairman plus four other members) required by the Technical Specifications. This POC reviewed and made recommendations regarding LER 87-13-01. This conduct of a POC meeting with less than the required quorum was a violation of Technical Specification 6.5.1.5 (Enforcement Item 87-27-02).

Although not contrary to requirements, the inspector also identified one case wherein the assistant operations manager acted as the POC vice chairman when the regular Chairman, Vice Chairman, and Operations Manager were not available; i.e., the FSAR line of authority was used in this case. Discussions with senior plant management indicated to the inspector that POC meetings would normally be chaired by the Plant Manager or Assistant Plant Manager.

14. Exit Meeting

The inspector met with licensee management representatives periodically during the report period to discuss inspection status and an exit meeting was conducted with the indicated personnel on November 5, 1987.

The scope of the inspection and the inspector's findings, as noted in this report, were discussed and acknowledged by the licensee representatives.