UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 16, 1994

Docket No. 50-397

LICENSEE: Washington Public Power Supply System (Supply System)

FACILITY: Washington Nuclear Project No. 2 (WNP-2)

SUBJECT: MEETING SUMMARY OF JULY 21, 1994

We met with the Supply System on July 21, 1994, to discuss NRC concerns related to licensee management controls of plant activities, specifically related to a number of events that occurred during the 1994 refueling outage. A list of attendees is enclosed. Also enclosed is a copy of material used by the licensee in their discussion.

The NRC staff opened the meeting by expressing their concern regarding the number of events that occurred during the outage. While the staff did not consider each individual event as having significant safety implications, the staff stressed that the number of events increased the regulatory concern with the licensee's overall performance, and requested that the licensee discuss the implications of the events to future operations.

The licensee presented an overview of its activities, including discussions with the NRC and its own activities regarding the outage. The licensee stated that one of their objectives was to ensure the NRC was informed of their activities, as illustrated by the numerous meetings and telephone calls during the outage to discuss the various issues. The licensee acknowledged that the outage had not progressed as they had hoped, with a planned 60-day outage extending to about 85 days. Mr. Parrish identified the issues that affected the outage length, including fire protection, Agastat relays, containment penetrations, and entering the outage two days early due to power oscillations resulting from an oscillating flow control valve.

The licensee then started to brief the staff on the Supply System's assessment of the outage, using the briefing material in Enclosure 2.

Mr. Parrish then discussed the Supply System's own assessment of problems during the outage. The licensee felt that new work controls, with some conflicting procedures and multiple responsibilities for the same work item, contributed to some of the problems. The licensee had evaluated work schedules and determined that overwork and tiredness were not contributing factors to the problems. The licensee also concluded that the problems were not due to lack of training or the adequacy of procedures. The licensee did state a concern they had regarding the attitude exhibited by the workers, as exemplified by an observation from three maintenance workers that visited Grand Gulf during the outage. These workers found that the procedures and training at WNP-2 were no better or worse than they found at Grand Gulf, but that there was a significantly more positive attitude exemplified by the Grand Gulf staff than the Supply System workers felt existed at WNP-2.

In response to questions from the staff regarding problems during the outage, Mr. Parrish stated that a lot of effort has been expended by the 'new' management team to address safety culture at the Supply System over the last 2-1/2 years. He further stated that the Supply System management has not made as much progress as expected, which would indicate that they may not be focusing on the right things. Mr. Parrish also indicated that at this point, the management team has not determined what specific efforts will be attempted, but did recognize that emphasizing positive accomplishments was important to reinforce good performance and work practices. The NRC staff expressed a concern that the multitude of problems experienced during the outage may be indicative of a developing pattern of problems, caused in part or substantially by the safety culture discussed by the licensee.

Mr. Bemis and Mr. Parrish discussed their view that their employees may have a low self-image, and that the new management team may have contributed by focusing on errors and the negative side of issues. The managers are starting to focus on employee successes as well as on problems. In addition, the licensee is making a conscious effort to have employees take action based on the correct thing to do, not based on NRC expectations. Overall, the licensee believes they are making some progress, but that strong management oversight and involvement is still necessary. The licensee also stressed that plant management requested a two-day delay in the restart schedule to allow the plant staff to transition from the rush of completing outage work to an operating mentality, and allow verification of readiness for restart.

The NRC staff asked if the licensee had developed a comprehensive list of lessons learned, or if the licensee had identified any common root causes for the events from the outage. The licensee identified three common causes: first, there seemed to be a lack of licensee staff awareness of the implications of their actions; second, personnel simply were not exhibiting a questioning attitude; and third, a lack of self checking by the licensee staff, especially the equipment operators who are exhibiting problems previously corrected in control room operations. The licensee felt that concentrated training of equipment operators was needed to address this latter cause.

The NRC staff concluded the meeting by stressing their concern for the potential implications that the outage events may have if carried over into plant operations. The NRC has seen some improvements, and stressed that the Supply System should take credit for the work so far. However, the NRC staff expressed a degree of pessimism because of the difference between the progress made by the Supply System in addressing long-standing performance issues and the progress made by other utilities that had experienced similar performance issues.

The NRC will continue to focus appropriate resources on WNP-2 to identify underlying, systemic problems that led to the type of events that occurred during the outage.

ORIGINAL SIGNED BY SHERI R. PETERSON FOR:

James W. Clifford, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Enclosures:
1. List of Attendees
2. Licensee presentation slides

cc w/enclosures:
See next page

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NRC & Local PDRs
PDIV-2 Reading
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E. Jordan
NRC Participants
ACRS (10)
J. Mitchell

OFC	LA:DRPW	PDIV-2:PM	PDIV-2:D	ADR4	D:DRPW
NAME	DFoster-Curseen	JClifford:ye	TQuay	EAdensam	JRoe
DATE	8/5/94	8/8/94	8/10/94	8/10/94	8/16/94

OFFICIAL RECORD COPY Document Name:7/21/94.MGT

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Sheri R. Peterson
for James W. Clifford, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
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2. Licensee presentation slides.

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See next page

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ENCLOSURE 1

LIST OF ATTENDEES

Name	Affiliation
Roy Zimmerman	Assoc. Dir. of Projects, NRR/NRC
Jack Roe	Dir., Div. of Reactor Projects III/IV, NRR/NRC
Elinor Adensam	Asst. Dir. for Region IV Reactors, NRR/NRC
Joe Callan	Region IV Administrator/NRC
A. Bill Beach	Dir., Div. of Reactor Projects, Region IV/NRC
Theodore Quay	Dir., Project Directorate IV-2, NRR/NRC
James Clifford	Sr. Project Mgr., PD IV-2, NRR/NRC
J. V. Parrish	Asst. Managing Dir., WPPSS
Paul Bemis	Manager, Regulatory Programs, WPPSS
John Wyrick	WNP-2 Outage Manager, WPPSS
Marylee Slosson	Chief, Human Factor Assessment Br., NRR/NRC
Jocelyn Mitchell	Regional Coordinator, OEDO/NRC

ENCLOSURE 2

WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

WNP-2

R-9

OUTAGE

UPDATE

19 JULY 1994

OUTAGE GOALS

As of July 19, 1994

■ DURATION

*60 DAYS
CURRENTLY PLANT STARTUP IS SCHEDULED:
21 JULY 94 (86 DAYS)

*NOTE: GOALS BASED ON 60-DAY OUTAGE

■ RADIATION PROTECTION

EXPOSURE: ≤ 650 REM
CURRENTLY AT 693.252 (107%)
PERSONNEL CONTAMINATIONS:
CURRENTLY AT 367
RADWASTE VOLUME: ≤ 90,000 LBS.
CURRENTLY AT 80,698 (7/18/94)

■ SAFETY

LOST TIME INJURIES ≤ 0
CURRENTLY AT 2

■ SCOPE

100% OF PRIORITY 1 WORK
CURRENTLY AT 97.1%
90% OF PLANNED PRIORITY 2 WORK
CURRENTLY AT 96.0%
80% OF EMERGENT PRIORITY 2 WORK
CURRENTLY AT 90.8%

■ LERs

PERSONNEL RELATED LERs ≤ 0
CURRENTLY AT 1

MAJOR ACTIVITIES

- Control Rod Drive Backfill Modification
  (Reactor Pressure Vessel Level Notching)
  - Partially Implemented on Cooldown
  - No Level Notching
  - Fully Implemented/Tested Prior to Startup
- Main Steam Isolation Valve -Local Leak Rate Test
  - No Failures
  - 4th Year
- Mechanical Stress Improvement Program (44 total on 24 nozzles)
  - 120 Hours of QA Coverage
  - Slow Start. Coordination Issues
  - Management Intervention
  - Quick Recovery
  - Complete Near Schedule/Under Exposure Budget
- Main Steam Relief Valve
  - 9 Total (8 Replace/ 1 Repair)
  - 5 Leakers/4 PMs
  - Ongoing Program
- Containment Exhaust Purge/Containment Supply Purge
  - 4 of 11 Replaced
  - 3-Year Program
  - Prioritized
- Jet Pump Beam Replacement
  - All 20 replaced
  - Inspection Planned For Old Beams
- Repair Circulating Water Inlet/Outlet Valves
  - On Line Tube Repair
- Control Rod Drive Remove/Rebuild
  - 30 Drives
  - Ongoing Program

MAJOR ACTIVITIES (con't)

- Core Shroud Weld Inspection
  - 34% of Most Susceptible Welds
  - No Indications
  - Plan Based on BWROG Recommendations
- Containment Integrated Leak Rate Test
- Jet Pump Cleaning
  - Core Flow Shortfall in Previous Operating Cycles
  - All 20 Pump Mixing Sections
  - Recovered ~ 2.5% After R-8 — Expect the Same This Year
- Motor Operated Valve Analysis & Test System
  - 80 Baselines
  - 85 Refurbishments (30 Safety Related)
  - 18 Differential Pressure Tests
  - Completes 5 Year Program (With NRC Approved Exceptions)
- Reactor Pressure Vessel Hydrostatic Test
- Wetwell Cleaning

OUTAGE SUCCESSES

- Operations Production Team
  - Positive Impact on Control Room
  - Central Permit Area
  - Focus on Production
- Local Leak Rate Tests
  - Full Scope LLRT Year
  - 286 Tests
  - 7 Failures
- Personnel In-Processing
  - Average 3.5 days (New Hires)
  - Visitor Badges Decreased Significantly
- Snubber Program
  - 37 of 37 Tested Satisfactory
  - 4 Years without a Failure
  - Optimization Program Continues

EMERGENT ITEMS

- Refuel Bridge Mast Replacement
  - Management Timeout
  - Disciplinary Action
- Drywell Penetrations
  - Work on 25 of 60 Modules
  - 10 Replaced
- Control Rod Drive Mechanism
  - Two Required Changeout
  - (50-27, Difficult to Withdraw)
  - (38-23, Coupling Problems)
- Local Power Range Monitor Changeout
  - New Design
  - Less Flexible
  - Longer Seal Area

EMERGENT ITEMS (con't)

- Jet Pump Sensing Line Crack
  - 10 Days Critical Path
  - Worked With GE on Options
- Service Platform Light Retrieval
  - 7 Days Critical Path
  - Management Timeout
- Agastat Relays
  - 52 Total Required Replacement/Testing (LSFT)
  - Project Team Organized/Focused
  - < 24 Hour Impact on Restart