

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/84-13

Docket No. 50-397

License No. NPF-21

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

Inspectors: *D. D. Toth* 6/27/84
for A. D. Toth, Senior Resident Inspector Date Signed

R. S. Waite 6/27/84
for R. S. Waite, Resident Inspector Date Signed

Approved by: *R. T. Dodes* 6/27/84
for R. T. Dodes, Chief Date Signed
Reactor Projects Section 1

Summary:

Inspection on May 1 - June 5, 1984

Areas Inspected:

Routine, unannounced inspection by the resident inspectors of control room operations, engineered safety feature status, surveillance program, maintenance program, power ascension test program, licensee event reports, special inspection topics, and licensee action on previous inspection findings.

The inspection involved 143 inspector-hours onsite by two resident inspectors, including 19 hours during backshift work activities.

Results:

Two violations were identified in the areas of event reporting (paragraph 9) and clearance order administrative procedures (paragraph 9).

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DETAILS

1. Persons Contacted

Washington Public Power Supply System

- *G. Afflerbach, Assistant Plant Manager
- R. Corcoran, Operations Manager
- *K. Cowen, Technical Manager
- J. Landon, Maintenance Manager
- *J. Martin, Plant Manager
- *M. Monopoli, Manager of Operational Assurance Programs
- *J. Peters, Administrative Manager
- P. Powell, Licensing Manager
- C. Powers, Reactor Engineering Supervisor
- J. Shannon, Assistant Managing Director for Operations
- *D. Walker, Plant Quality Assurance Manager

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

2. General

The Senior resident inspector and/or the resident inspector were onsite May 1-4, 14-18, 20-25, 27, 29-31, June 1, and 4-5. Backshift inspections were conducted May 2, 5, 14, 20, and June 4-5. In addition, the resident inspector conducted 47 hours of backshift inspection, as part of a team inspection May 30 to June 8.

Several regional office inspectors visited the site this month for routine inspection activities. Their activities were documented in other separate inspection reports. These included:

A special team inspection was conducted May 30 - June 8, 1984, to assess control room operations staff performance on all three work shifts. Team members included the resident inspector (R. Waite), Region V inspectors (D. Willett and A. Johnson), a Region IV resident inspector (D. Carpenter), and an EGG reactor operator examiner consultant (D. Hill). A regional office manager (J. Crews) was on site May 29-30 to assist in the initial inspection activities.

A regional office operations inspector (D. Willett) was onsite May 1-4 to review quality assurance and operations program activities.

Regional office inspectors (R. Fish, L. Ivey, G. Temple, N. Ervin, D. Kunihiro), and consultants from Comex (P. Brown), EG&G (E. King and A. Smith), and Battelle Northwest (K. Byers) were onsite during May 14-17 to evaluate the licensee emergency response exercise. A regional office supervisor (D. Schuster) participated in the evaluation.

A regional office inspection supervisor (R. Dodds) was onsite May 22-25 to review operating and inspection activities and meet with the plant management regarding licensee event reports.

T. Ankrum and J. Gilroy from IE Quality Assurance Branch were onsite May 29, 1984 to discuss quality assurance concepts at the request of the Supply System.

3. Plant Status

During this period the plant has continued in the power ascension test program. The heatup phase was completed, as was most of test condition 1 testing. As part of a test, the turbine was synchronized to the transmission grid on May 27, and was generating at a rate of 95 megawatts by May 29. The plant was subsequently shut down for maintenance prior to entering test condition 2 transient testing modes.

4. Operations Verifications

The resident inspectors reviewed the control room operator and shift manager log books on a daily basis for this report period. Reviews were also made of the Jumper/Lifted Lead Log and Nonconformance Report Log to verify that there were no conflicts with Technical Specifications and that the licensee was actively pursuing corrections to conditions listed in either log. Events involving unusual conditions of equipment were discussed with the control room personnel available at the time of the review and evaluated for potential safety significance. The licensee adherence to LCO's, particularly those dealing with ESF and ESF electrical alignment, was observed. The inspectors routinely took note of activated annunciators on the control panels and ascertained that the control room licensed personnel on duty at the time were familiar with the reason for each annunciator and its significance. The inspectors observed access control, control room manning, operability of nuclear instruments, and availability of onsite and offsite electrical power. The inspectors also made regular tours of accessible areas of the facility to assess equipment conditions, radiological controls, security, safety and adherence to regulatory requirements.

- 2 The inspector noticed that a system engineer had received minor contamination on his hands (15000 dpm). Review of documentation and interview of personnel indicated that this had occurred in the turbine generator building when the individual opened a valve on an instrument air line, to blow out the lines of a hydrogen analyzer. The individual had not signed onto the radiation work permit (RWP-2-84-199) applicable to removal of the device. He stated that he had not felt it necessary to sign the radiation work permit, since he had not gone into the radiation work area; however, he did handle the device that was removed from the area.

The Health Physics group prepared the necessary Report of Radiological Occurrence and a Personnel Contamination Report dated 5/18/84. These documented the occurrence, the results of decontamination, and recommendations to prevent recurrence. They documented and questioned that the individual had not signed onto

the radiation work permit associated with the removal of the hydrogen monitor, and recommended corrective action for management consideration.

The inspector interviewed the system engineer and reviewed drawing M-531 and the related maintenance work request AY-4195, in order to assess the manner in which contaminated water had entered the instrument air system near the offgas sampling system. These showed that flow from one steam air ejector had apparently fed back to the exhaust lines of the other, and steam had condensed in a connected stagnant length of low-flow purge line piping from the instrument air system. Upon opening a branch from this line, the condensate was blown out. The system engineer described plans to prevent recurrence. Appropriate licensee actions appeared to be underway.

b. Jumper/Lifted Lead Log, Open item 84-09-09 (Open)

The licensee Quality Assurance Organization performed a surveillance of the implementation of PPM 1.3.9, "Control of Electrical and Mechanical Jumpers and Lifted Leads", and determined several deficiencies which were related to inspection data reported in report 84-06. The Operations Manager committed to the NRC that prior to the startup after the M-1 outage the licensee will (1) have all Startup items cleared except "as-built" items and (2) have all Operation items cleared or redlined in the log. The inspector examined the Jumper/Lifted Lead log and determined that several changes had been made by the licensee. The jumper and lifted lead log sheets were revised to allow more room for the person requesting jumpers or lifted leads to document the reason and function affected. Several entries on these new log sheets were observed and the inspector determined that for all of these entries the reason and function affected was clearly described. The inspector noted that the licensee apparently neglected to include this new log sheet as a revision to the existing procedure. The inspector brought this to the licensee's attention and the licensee prepared a procedure deviation form to include the new jumper and lifted lead sheet in the procedure. Open items still remaining in the operations section were reviewed by the licensee and new descriptions of the reason and function affected for each item were inserted in a clear manner.

No violations were identified.

5. Engineered Safety Feature Verification

The inspector verified the operability of the Standby AC Generating system (Diesel Generators #1 and #2, HPCS Diesel) by performing a walkdown of several accessible portions of the system, including valves, instrument racks and electrical switchgear and motor control centers. Valve positions were compared to positions prescribed by valve lineup lists and as shown on the flow diagram. Instrument rack instrument operability was noted, including positions of instrument isolation valves. In-progress work by licensee instrument technicians performing surveillances was monitored and in cases they assisted by manipulation of valves to confirm open or shut conditions. Electrical power supply was

confirmed for valve motors by checking positions of breakers in motor control centers.

No violations were identified.

6. Surveillance Program Implementation

The inspectors ascertained that surveillance of safety-related systems or components was being conducted in accordance with license requirements. In addition to observation of, and sometimes witnessing and verifying daily control panel instrument checks, the inspectors observed portions of several surveillance tests by operators and instrument and control technicians. Typical activities included the following:

- a. Observations were made by the inspector of several Surveillance tests being performed during the course of the Special Team Inspection. These surveillances were verified as conforming to technical specification requirements, observed to ensure that the required administrative approvals were obtained prior to initiating the test, that the testing was being performed in accordance with approved procedures, and that test documentation was performed properly.

No violations were identified.

7. Monthly Maintenance Observation

Portions of selected safety-related systems maintenance activities were observed. By direct observation and review of records, the inspector determined whether these activities were violating LCOs; that the proper administrative controls and tagout procedures were followed; that equipment was properly tested before return to service; and independently verified that the equipment was returned to service. The inspector also reviewed the outstanding job orders to determine if the licensee was giving priority to safety related maintenance and that backlogs which might affect system performance were not developing. The systems selected for maintenance observation are listed below:

a. HPCS Diesel

The inspector observed work being performed by the electrical shop to remount the speed switch of the HPCS diesel generator. The speed switch was remounted using the MWR as a procedure and by direct supervision of the system engineer. After remounting all leads were checked for continuity and the diesel started and stopped to verify system operability. The inspector independently verified that the diesel was returned to service and lined up for operability.

b. Inverter IN-1

In order for a bracket to be welded to the IN-1 power supply cabinet, IN-1 was required to be deenergized. The inspector observed the inverter outage as coordinated by the system engineer. All loads were removed from the IN-1 power supply thru coordination

with the control room staff. The power supply for these loads was then switched to the bypass power supply and IN-1 deenergized. The inspector later independently verified that IN-1 had been reenergized and loads returned to their normal configuration.

c. IRM E

IRM E was giving erratic indications and an MWR was written to instruct the Instrumentation and Control shop on checks to be performed to verify the units proper operation. These checks were performed, a channel calibration performed, and the IRM returned to operable status. No problems were discovered and the erratic indication was determined to be due to voltage spiking.

8. Power Ascension Test Program

The inspectors examined equipment, interviewed personnel, and reviewed records and procedures relative to conduct of the power ascension program described in Chapter 14 of the FSAR.

a. Reactor Core Isolation Cooling (RCIC) Test

The inspector observed portions of initial setup tests of the RCIC system for test condition heatup, subsequent retesting after flow controller adjustments, and subsequent test activities for test condition 1. These included conditions of control from the remote shutdown panel. The inspector also examined the initial data sheets and flow recordings for these tests.

The test data appeared to meet the level I acceptance criteria described in the WPPSS procedure 8.2.14 (which were consistent with the acceptance criteria of Chapter 14 of the FSAR). In each case the flow rate of 600 gpm was achieved within 30 seconds after simulated auto-initiation. Tests were run between 150 psig and 980 psig, and involved direct injection to the reactor vessel and injection to the condensate storage tank through the test line.

During initial April 13, 1984 testing the flow recorders showed an initial pump runout condition with full flow to the condensate storage tank for 13 seconds. Initial licensee explanations attributed this to draining of lines downstream of the pump discharge and subsequent pump runout until the lines were filled. Action to prevent this in future tests was taken by holding the test line valves closed until just prior to initiating the pumps, thus minimizing the initial drainage volume and therefore limiting the extent of runout. During the May report period the licensee had not investigated this drainage effect to positively identify the points of drainage nor the resultant dynamic effects such as water hammer. The WPPSS pipe support engineer stated that although he had been involved in RCIC pipe support inspection activities April 20, he had not performed inspections of lines associated with the RCIC system specifically for water hammer damage. He stated that forces of 2-4 tons may be associated with such water hammer and that the pipe supports were not designed for such loads. He agreed to accompany

the inspector in an examination of the most suspect area (RCIC injection line between the injection check valve and the containment building penetration sleeve). The supports (including snubbers) were inspected for signs of distortion, binding, or other evidence of having experienced water hammer effects. No damage was identified.

Following the test program, the routine surveillance procedures for this system will involve starting the RCIC pump prior to opening the test valves to the condensate storage tank (using minimum flow line), such that no opportunity for drainage would exist. This matter is resolved.

No violations or deviations were identified.

b. Core Performance Tests

The inspector examined data relating to the test condition 1 thermal hydraulic limits discussed in the FSAR section 14.2.12.3.19, and reviewed the use of the off-site BUCLE computer code for calculation of the parameters. The WPEU engineer responsible for inputting and analyzing the computer data appeared quite familiar with the off-site computer codes, their bases, and the mechanics for their use.

The core thermal power used in the BUCLE program calculations was derived from a manual calculation in accordance with plant procedure 9.3.1 (Revision 0). The calculation appeared to have been completed by the General Electric Company control room engineer on June 2, 1984 in accordance with the procedure. However, the inspector identified that the calculation sequence prescribed by the procedure contained a minor error in one step (Key 16). This involved the use of an incorrect temperature correction of the specific volume value used in the volume/mass flow conversion for the cleanup system heat loss contribution to the reactor energy balance. This appeared to be due to confusion in the adopted convention of referring to RWCU system inlet/exit temperatures, as opposed to the reactor vessel inlet/exit temperatures used elsewhere throughout the calculation. The licensee technical staff subsequently initiated a procedure deviation to correct this item and other typographical errors in the procedure.

The impact of the above error on the core thermal power calculation was insignificant (less than 0.1% of 972 MW) and had no impact on the BUCLE calculations. The calculated thermal power, MLHGR, MAPLHGR and MCPR each were within limits.

No violations were identified.

c. Shutdown from Outside the Control Room

During the testing of the RCIC system, some elements of the remote shutdown test were exercised. One of these involved use of the abnormal condition procedure 4.12.1.1. This procedure was

referenced generally in the RCIC testing procedure 8.2.14 and was used in lieu of including specific steps in procedure 8.2.14 for manipulation of the remote shutdown panel. Based upon verbal direction by the test engineer, the reactor operators did not perform all steps of the procedure, e.g. emergency switching and valve lineups not directly needed for the RCIC test were ignored. The test supervisor and operations management subsequently advised the inspector that they concurred with this approach.

The inspector found that procedure 4.12.1.1. contained the following ambiguities and typographical errors which appeared obvious during a walkdown of the procedure that compared procedure requirements with the actual hardware:

Part 4.12.1.1.3:

Step 5 - refers to transformer TR-5 (not TR-S)

Part 4.12.1.1.4:

Step 6).r - Valve RCIC-V-53B designated CLOSED.

Actual valve has open/normal/closed switch spring returns to "normal" at all times.

Step 6).s - Valve RHR-V-23 designated CLOSED.

See 6)r. above.

Step 7).c+ - Valve RHR-V-64.

No position designated.

Step 7).f - Valve RHR-V-68.

Actual valve RHR-V-6B

Step 7).q - Valve RHR-V-24B designated CLOSED.

See 6).r above.

Step 10).c - Pump SW-P-1A designated off.

Should read SW-P-1B.

These were minor discrepancies of little significance. However, they appeared indicative of the need for thoroughness of the licensee during the walkdown of completed procedures. The correspondence of procedures with installed hardware will be considered during future inspections. (Open item 84-13-01)

No violations were identified.

9. Licensee Event Reports

The inspector reviewed each of the LER's issued during the current report period. Each of these is considered to be closed unless noted otherwise below. The inspector verified that reporting requirements had been met, causes had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were complete. Additionally, for those reports identified by asterisk, a more detailed review was performed to verify that the licensee had reviewed

the event, corrective action had been taken, no unreviewed safety questions were involved, and violations of regulations or Technical Specification conditions had been identified.

An NRC regional office inspection supervisor and the senior resident inspector met with licensee plant management on May 24 to discuss the content of previously submitted LER's, and examples of reports where additional information should have been included to permit more complete evaluation by the NRC staff. The plant manager committed to apply efforts to improve the content and accuracy of future reports. The plant manager also advised that security-plan related reports will be submitted under provisions other than the LER system in the future.

*LER-84-028 - Unscheduled Reactor Protection System Actuation (Reactor scram from CRD system concurrent maintenance activities)

LER-84-029 - Technical Specification Violation (Diesel generator prelube/warmup)

*LER-84-030 - Unscheduled Initiation of CR Emergency Filtration Units (Control room ventilation closed cycle initiation from electrical surge to radiation monitor)

LER-84-031 - 10 CFR 50 Appendix "R" Cable Fire Protection (Oversight of some cables for inclusion in thermolag protection program for safe shutdown criteria)

*LER-84-032 - Improper Operation of Primary Containment Airlock (Inner and outer airlock doors opened simultaneously)

*LER-84-033 - Isolation Actuation Instrumentation (temperature monitors) (Room Temperature monitor setpoints for system isolation set too low or improperly)

**LER-84-034 - Containment Temperature Monitoring (Drywell local temperatures exceeded technical specification LCO limits)

LER-84-035 - PWCU Isolation Due to Flow Mismatch (System isolation from rapid transfer of flow path)

*LER-84-036 - Reactor Scram During Feedwater Control System Adjustment (Scram from improper installation of test device)

LER-84-037 - Loose Parts Detection Channel-6 Failure (Plant modification work damages loose parts detector)

LER-84-038 (Security matter)

LER-84-039 - Unscheduled Initiation of CR Emergency Filtration Units (Control Room ventilation closed cycle initiation from electrical surge to radiation monitor)

*items which were examined on site and which are closed.

**items which were examined on site and which are open.

The following licensee event reports were specifically examined by the resident inspectors:

(Closed, 84-028) - The inspector examined the maintenance work requests (MWR) and clearance orders (C/O) for work on the control rod drive system scram discharge volume (SDV) and three hydraulic control units (HCU). These included:

SDV (Addition of redundant vacuum breaker)

CRD-V-120: MWR-AY-5388 (Shift Manager approval March 21)
C/O-84-3-292 (Shift Manager approval March 27, 9:00 AM)

HCU (Repair of scram pilot valve V-117)

HCU-4207: MWR-AY-6135 (Shift Manager approval March 29)
C/O-84-3-319 (Shift Manager approval March 28, 3:15 PM)

HCU-4643: MWR-AY-4614 (Shift Manager approval March 29)
C/O-84-3-318 (Shift Manager approval March 29, 3:15 PM)

HCU-4239: MWR-AY-4618 (Shift Manager approval March 29)
C/O-84-3-317 (Shift Manager approval March 28, 3:15 PM)

The MWRs for all work operations required that the work be performed under cold shutdown plant conditions (Mode 4, all control rods inserted). The clearance orders were approved under these conditions, by the day Shift Manager (for SDV) and swing Shift Manager (for HCUs). The swing Shift Manager apparently was unaware of the work in progress on the SDV, or did not recognize the potential for filling of the SDV and/or the resulting scram signal as a result of the HCU work. The resulting scram signal had no impact on the plant. The Plant Operations Committee (POC-84-17) concluded that this was a unique event and requires no further corrective action nor assignment of any POC action item.

The HCU related clearance orders identified an air supply isolation valve CKV-V-116 to be closed for the HCU flow control valve CRD-V-117 repairs. After the air leakage from V-117 resulted in water flow to the SDV and the resultant scram signal, four additional valves were added to the clearance orders (CRD-V-112, 101, 102, and 113). These were drive and scram water flow path isolation valves. Plant administrative procedure 1.3.8 Revision 6 was not met in that the addition and/or deletion of tags (recorded in the Tag Location section) changes were not "initialed by the Shift Manager". Also, the Shift Manager had not checked the HCU clearance orders as "Redundant Verification Required", (procedure 1.3.8 requires that redundant verification is required "when the component is safety related or fire protection". When advised of this matter, the plant quality assurance staff appropriately documented the problem on Plant Nonconformance Report 284-0426. The departures from the administrative procedure 1.3.8 appears to be a violation (84-13-02).

(Closed, 84-030) - The inspector witnessed spurious activation of the control room ventilation closed cycle on April 12, 1984 during testing of the RCIC system. The control room staff repeated operation of valve

RC1C-V-113 and ascertained this to be the cause of the response of the radiation monitor of the remote air intake. The inspector routinely observed discussions of this and related events, at the licensee daily planning meetings, which assured appropriate management awareness of the radiation monitor grounding problems and status of corrective actions.

(Closed, 84-032) - The inspectors examined equipment, procedures and drawings and interviewed personnel relative to the primary containment airlock doors. The Licensee Event Report (LER) was dated May 10, 1984 and stated that on April 11, 1984 the "...inner door started to open while they were closing the outer door". The April 12 originating NCR No. 84-305 more clearly states that "both containment doors were opened simultaneously. Investigation showed interlock was not engaged. Engaged interlock and immediately re-established containment integrity." The licensee staff apparently considered the short duration of the nonconforming condition as basis for concluding that the matter did not require notification to NRC under 10 CFR 50.72. Also, the licensee staff did not provide this information (that containment integrity had in fact been compromised during plant operations) to the inspectors during their inquiry into the subsequent April 17-19 airlock discrepancies. (That inquiry included interview of the engineer who had prepared the nonconformance report No. 84-305 for the April 11 occurrence.) Neither was this Technical Specification Violation recorded in either the Shift Manager or Control Room Operator log. The reportability of this matter under 10 CFR 50.73 was also not initially recognized by the operations shift manager, as noted on the nonconformance report, but appeared to have been recognized after NRC inspectors raised questions regarding the subsequent April 17-19 event; it was flagged as reportable by the Technical Manager on April 26. The failure to promptly notify NRC of this matter appears to be a violation (84-13-03).

(Closed, 84-033) - The inspector examined the RWCU Pipe Routing Area leak detection temperature setting device (E31-N612HT) and interviewed the operations staff and the Instrument and Controls maintenance supervisor. The overly conservative instrument setpoint of 105°F found on April 12 was being corrected to 110°F by use of a procedure deviation, which appears to have not been issued in a timely manner. On April 19 an I&C technician made a surveillance adjustment to the conservative setting of 105°F with room temperature reading 107°F when the system isolation occurred (described in nonconformance report 84-326). The inspector advised the licensee administrative manager that the LER report did not appear to accurately identify that one of the three events appeared to involve personnel error.

(Open, 84-034) - The inspector observed control room instrumentation of drywell area temperatures, attended daily staff meetings where action plans were discussed, and interviewed responsible engineering staff relative to high local temperatures in the drywell. He also examined locations where additional insulation was added around the reactor sacrificial shield wall and piping supports, and inspected additional duct sections added to improve air flow distribution. The licensee has fabricated additional duct pieces for further changes in air distribution in the event that additional measures prove necessary to bring temperatures within the technical specification limits. The reactor has

been cycling between operation and shutdown modes such that equilibrium conditions have not been fully established; further evaluation is planned by the engineers as plant conditions stabilize. Licensee actions appeared appropriate.

(Closed, 84-036) - NRC action on this item was described in NRC inspection report 50-397/84-09 (paragraph 4.c).

10. Special Inspection Topics

The inspectors examined records, interviewed personnel, and inspected plant conditions relative to the following matters requested by the regional office:

a. Effectiveness of Licensee Self Evaluation of Performance

The inspector attended a Plant Operations Committee (POC) meeting on May 23, 1984. Topics considered by the Committee included LER-84-039, various plant modification requests, various procedure revisions and new procedures, procedure deviations, and results of preoperational test for control room chiller modifications.

The full committee was present as described in technical specification section 6.5.1 and plant procedure 1.1.5, including the managers of operations, administration (designee), technical staff, maintenance, health physics and chemistry, and quality assurance. Also present were representatives of plant engineering and the NSSS consultant (GE). The plant manager was present as chairman. A general agenda, including identification of specific procedures to be reviewed, was available; some walk-in items were also accepted at the meeting. Appropriate handout material was available for the members. Procedures, comments and dispositions had obviously been addressed by the staffs of the represented departments and the managers demonstrated interest and familiarity with the issues. The chairman invited comment by the various department representatives prior to designating approval of each item. Presentations by individuals submitting material for approval were appropriately summarized, and the committee probed technical and administrative issues which were not totally clear. The chairman did not adjourn the meeting until inviting any further matters needing to be considered from the members.

The event report (LER-039) was discussed in detail, including the safety significance, cause of the problem, engineering effort to accomplish repairs, temporary actions and basis for their acceptability, efforts to resolve interfaces with offsite contractors, and basis for reportability to NRC. The engineer's presentation to the Committee appeared to be thorough, the depth of Committee inquiry appropriate, and the corrective actions reasonable.

No violations were identified.

b. In-Plant Interfaces of Operations/Construction

The inspector examined records and procedures and interviewed personnel regarding the methods of assigning maintenance work to the support services contractor, Bechtel Construction, Inc. (BCI). Maintenance work requests (MWR) are prepared by the WPPSS system engineer and forwarded to the maintenance department, where a decision may be made to assign the work to BCI. The WPPSS quality control organization identifies inspection hold points. A WPPSS services management group assures sufficiency of the work package, including clarity of work description, identification of quality control requirements, identification of applicable procedures, verification of contractor walkdown, and other items. This WPPSS group administers the subsequent BCI activities, including evaluation of contract performance. The inspector examined parts of the first quarterly evaluation and noted strong consideration and weighting of quality assurance and health physics performance in the determination of the designated incentive fee for the contractor; the associated conclusions reflected objective evaluation and demanding standards by WPPSS staff.

The MWR preparation is prescribed by plant procedure 1.3.7 (revision 5); the prescribed MWR entries identify need for clearance orders, radiation work permit, confined work space permits, and fire protection permit. It identifies quality class, safety related, and technical specification classifications. It defines the specific plant conditions under which the work may be performed.

The BCI work controls are prescribed by BCI procedure WP/P-G-37. This clearly defines individual responsibilities for the actions to manage the work, using a format which highlights the individual responsible for each action. The procedure provides for a BPI primary discipline engineer to provide overall technical direction and inspection of the craft activities, including preparation and implementation of a "Work Follower". A Radiological Work Management Engineer (RWME) provides a separate "Radiological Work Follower". The procedure requires the discipline engineer to obtain control room clearances to work on equipment, and clearly defines that the work crew foreman must contact quality control and provide ample notification for inspections. It provides for QC personnel to add additional inspection hold points for the work, after being notified of the start of the work.

The Bechtel procedures require discipline engineer and craft foreman walkdown of the work areas prior to start of work, with a highlighted caution for particular attention to protection of installed plant equipment. Walkdown by the Radiological Work Management Engineer is also provided. The procedures require notification of the RWME within 48 hours of start of work, and coordination with the WPPSS health physics organization. It requires notification of the control room within the 24 hour period just prior to start of work.

Currently, the BCI specific work activities are conducted in accordance with the details of the work package compiled for each MWR, plus the existing BCI construction and administrative

procedures carried over from the construction phase of WNP-2. In some cases, the Bechtel procedures reference the WPPSS operations procedures. An activity has been underway to prepare equivalent WPPSS plant procedures such that the BCI procedures may be deleted, with BCI crafts working directly to the WPPSS procedures. Ongoing attention to this matter is reflected in a May 22, 1984 memorandum, in which the WPPSS maintenance manager has defined the status of the specific BCI procedures which will/have been converted into WPPSS procedures.

No violations were identified.

c. Management/Staff Interaction During Periodic Emergency Drill

The inspectors observed licensee management and staff actions in the control room and in the Technical Support Center during the in-plant emergency drill on May 2, 1984. Consideration of the Operational Support Center actions was accomplished through observation of communications at the other two action points. The objective was to ascertain that the detailed knowledge and awareness of current plant conditions were solicited by management in the TSC and OSC and utilized in the decision process where appropriate.

The licensee plant senior management had manned the TSC, and middle management the OSC, as prescribed by the emergency plan. The inspectors observed the extent and nature of communications with the control room shift manager and control room supervisor and operators, and the nature of actions at the TSC which did not involve the control room staff. Once the TSC and OSC were manned, an open telephone line was established between the control room and TSC, and intermittent communications established with the OSC. During the drill, proposed actions involving manipulation of plant equipment appeared to be discussed with the control room shift manager prior to proceeding. The shift manager demonstrated freedom in expressing his views, soliciting further information, and taking a position contrary to the proposed plan until provided with sufficient information to allow his concurrence. The inspector advised the licensee management of his perception that the extent of such communications appears improved from his similar observations in 1983.

No violations were identified.

11. Licensee Actions on Previous NRC Inspection Findings

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

a. Jumper/Lifted Lead Log, Open item 84-09-09 (Closed)

The licensee Quality Assurance Organization performed a surveillance of the implementation of PPM 1.3.9, "Control of Electrical and Mechanical Jumpers and Lifted Leads", and determined several

deficiencies which were related to inspection data reported in report 84-06. The Operations Manager committed to the NRC that prior to the startup after the M-1 outage the licensee will (1) have all Startup items cleared except "as-built" items and (2) have all Operation items cleared or redlined in the log. The inspector examined the Jumper/Lifted Lead log and determined that several changes had been made by the licensee. (1) The jumper and lifted lead log sheets were revised to allow more room for the person requesting jumpers or lifted leads to document the reason and function affected. Several entries on these new log sheets were observed and the inspector determined that for all of these entries the reason and function affected was clearly described. The inspector noted that the licensee apparently neglected to include this new log sheet as a revision to the existing procedure. The inspector brought this to the licensee's attention and the licensee prepared a procedure deviation form to include the new jumper and lifted lead sheet in the procedure. (2) Open items still remaining in the operations section were reviewed by the licensee and new descriptions of the reason and function affected for each item were inserted in a clear manner. This matter is closed.

12. Management Meeting

On June 5 the inspectors met with the plant manager and his staff to discuss a summary of the inspection findings for this period. Attendees at this meeting are identified in paragraph 1 (*).