U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No: 50-397/85-32

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: September 1-27, 1985

Inspectors: for A. D. Toth, Senior Resident Inspector — Date Signed: 10/17/85

for R. S. Waite, Resident Inspector — Date Signed: 10/17/85

Approved by: P. H. Johnson, Chief, Reactor Projects Section 3 — Date Signed: 10/17/85

Summary:

Inspection on September 1-27, 1985 (50-397/85-32)

Areas Inspected: Routine inspection by the resident inspectors of control room operations, surveillance program, maintenance program, licensee event reports, special inspection topics, and licensee action on previous inspection findings. NRC inspection procedures 30703, 71707, 61726, 62703, 92700, 93702, and 40700 were covered.

This inspection involved 113 inspection-hours on site by two resident inspectors, including 5 hours during backshift work activities.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

G. Sorensen, Regulatory Programs Manager
*C. Powers, Plant Manager
*J. Baker, Assistant Plant Manager
*R. Corcoran, Operations Manager
*K. Cowan, Technical Manager
*J. Harmon, Acting Maintenance Manager
*D. Feldman, Plant Quality Assurance Manager
*J. Peters, Administrative Manager
P. Powell, Licensing Manager

* Personnel in attendance at exit meeting

The inspectors also interviewed various control room operators; shift supervisors; shift managers; and 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 on site September 9-13, 16-20, and 23-27.

Several regional office personnel visited the site this month. Related inspection activities are documented in other inspection reports. These included:

- A Reactor Inspector (K. Ivey) and contractors (R. White and W. Wade) were on site September 9-13.

- Emergency Preparedness Analyst (G. Temple) and Reactor Inspector (K. Prendergast) were accompanied by contractors (M.Good and G. Wehmann) on site September 9-13.

- Safeguards Branch Chief (L. Norderhaug) and contractor employees (G. Bryan, K. Byers, R. Hadley and J. Martin) were on site September 9-18.

- A regional Radiation Laboratory Specialist (G. Hamada) was on site September 13-18 with the NRC van.

3. Plant Status

The plant operated at about 72% power, with 1 recirculation loop in operation, for this report period.

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's adherence to Limiting Conditions for Operation (LCO's), particularly those dealing with ESF and ESF electrical alignment, were 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 on site and off site 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.

a. During plant tours, the inspector noted several Bechtel "Hold For Q.C. Clearance" tags which were apparently residual from construction activities. The licensee representative stated that all such tags were currently meaningless, since all Bechtel nonconformance reports had been resolved to date. The inspector selected one of these tags as a sample, to ascertain if required corrective actions had been completed, or if a "Hold" status was currently appropriate for the item. Tag 021709, dated June 23, 1983, was hung from a pipe support of an operating system in the plant. The inspector verified that corrective action had been completed for the associated nonconformance report.

b. During plant tours the inspectors noticed several minor plant discrepancies, which they brought to the attention of the shift manager or plant manager. Commitments to prompt action were made by the licensee management in each case:

   (1) A damaged flexible conduit to the motor operator of valve MSLC-V-1.

   (2) A metal ladder braced against a small horizontal snubber at valve HPCS-V-4.

   (3) Leaking or spilled oil at both standby liquid control system pumps.

c. The inspectors noted significant improvement in the reduction of the number of alarm annunciators activated in the control room.

No violations or deviations were identified.

5. 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 witnessing and verifying daily control panel instrument

checks, the inspectors observed portions of several detailed surveillance tests by operators and instrument and control technicians.

a. 7.4.3.6.2 - Rod Block Monitor - Channel Calibration (CC)

b. 7.4.6.6.1.3E - Hydrogen Recombiner 1A Temperature Instrumentation - CC

In addition a major surveillance was witnessed:

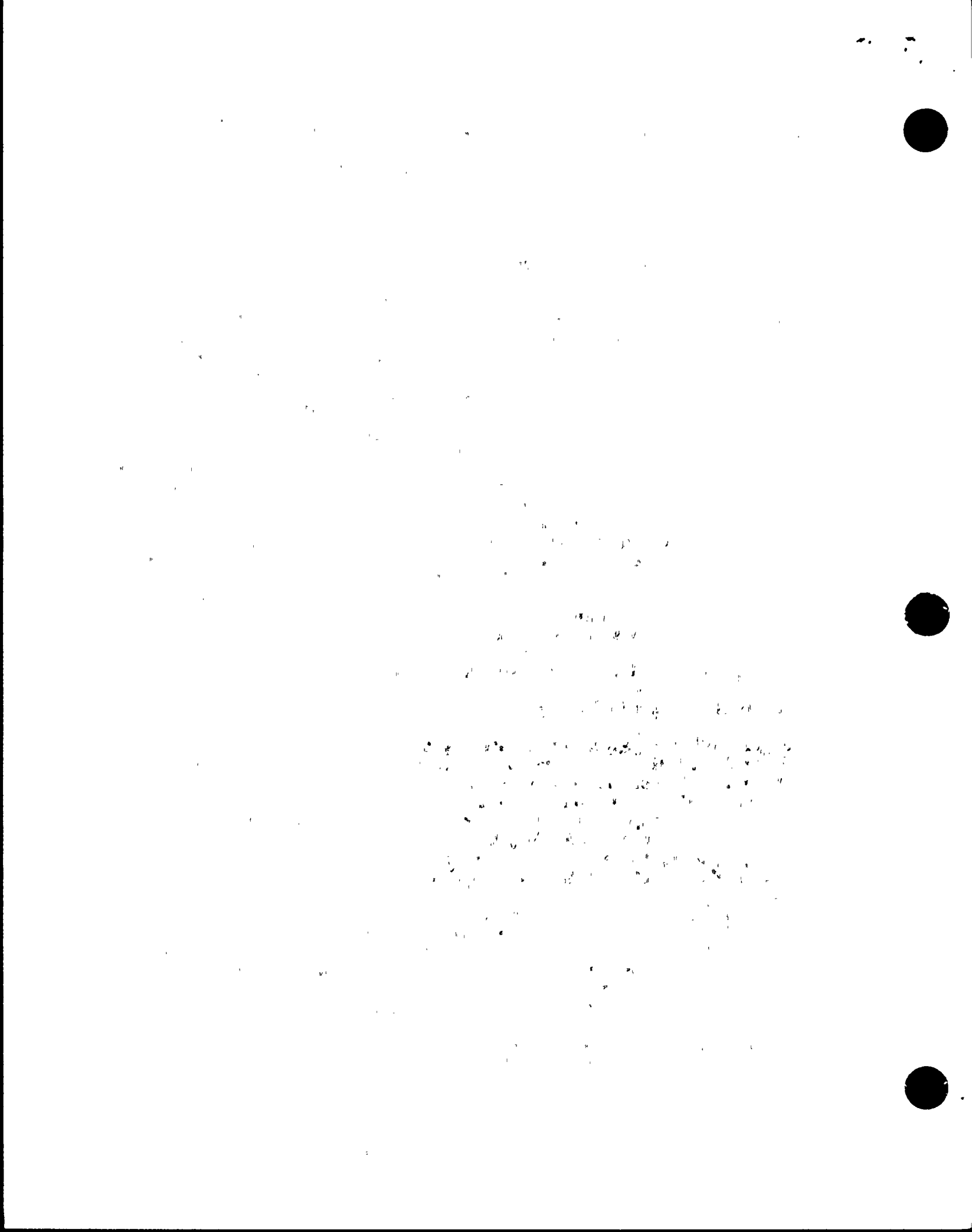
7.4.6.1.8.2 - Wetwell Purge Supply and Exhaust Leak Rate Test. During performance of this surveillance procedure valves CEP-3A, 3B, 4A, and 4B failed to meet technical specification surveillance (TSS) 4.6.1.8.2 requirements that the measured leakage rate for each valve be "less than or equal to 0.05 La when pressurized to Pa." Licensee procedure 7.4.6.1.8.2 specifies that the acceptance criterion, in accordance with the TSS requirement, is "Leakage less than 5660 sccm" where 5660 sccm (standard cubic centimeters per minute) is equivalent to 0.05 La. The licensee began preparations to insure compliance with technical specification action statement 3.6.1.8.b immediately. Concurrently, the licensee initiated a waiver request for technical specification 3.6.1.8 to the NRC. This waiver request was approved by the NRC and allowed the licensee 48 hours to prepare an emergency change to specification 3.6.1.8. The emergency change was submitted within the 48 hours and subsequently approved by the NRC. The inspector witnessed testing which determined that limits established by the technical specifications for containment leakage (0.6La for type B and C testing) would not be exceeded when the leakage of CEP-3A, 3B, 4A, and 4B were added; the emergency change was based on this fact.

No violations or deviations were identified.

6. 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 consistent with LCOs; that the proper administrative controls and tagging procedures were followed; that equipment was properly tested before return to service. The inspector also reviewed the outstanding job orders to determine if the licensee was giving priority to safety related maintenance and verify that backlogs which might affect system performance were not developing.

a. Cross contamination of demineralized water (DI) system with reactor coolant - Leakage occurred through three valves which are boundaries between the Post Accident Sampling System (PASS) and the DI system subsequent to replacement of a check valve in the DI system. The inspector discussed this event with the system engineer and plant management and reviewed the maintenance records. Once the source of leakage was determined it was isolated. The DI system was flushed and returned to service. The leaking valves will be repaired during the next shutdown. The licensee is pursuing further corrective action in order to prevent this type of event from occurring again.



No violations or deviations were identified.

7. Licensee Event Reports

The resident inspectors reviewed the following report and supporting information on site to verify that licensee management 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.

LER-85-50-00, Fire Protection System Inoperable In Cable Spreading Room (Closed).

The event report described failure to perform adequate post maintenance testing, and described corrective actions to assure that proper testing is performed for future maintenance.

The valves contained a bellows actuator with a bleedoff port routed through mating holes in the upper and lower valve body parts. Diametrically opposite this hole in the upper part was an alignment pin hole. During reassembly, the mechanics had rotated the bonnet 180-degrees such that the alignment pin entered and blocked the bleed-off port in the upper part; the dead-ended alignment hole blocked the bleed-off port of the lower body. The upper bleed-off port was drilled at an angle, but this did not prevent entry of the pin, nor was the configuration readily recognizable without close scrutiny. The site vendor information file contained no information relevant to this item.

The licensee's corrective actions addressed neither the failure of the maintenance personnel to properly reassemble the valve after maintenance, nor action to assure that future maintenance on these small solenoid valves would be performed correctly, other than via verification tests. Following interview by the inspector, the responsible maintenance supervisor initiated training of his mechanics relative to the event and proper assembly of the valves. The plant management stated that consideration would be given to supplementing the vendor manual for these valves, with appropriate information for future reference; however, principal reliance would be placed upon post maintenance testing. The licensee plans no update of the LER.

No violations or deviations were identified.

8. 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. (Closed) Violation (85-09-01), Inoperable Emergency Power System. The inspector verified that the control circuitry for both Division I and Division II diesel generators (DGs) was modified to preclude motor operated potentiometer (MOP) operation while the units are shutdown. The inspector also verified that the balance of

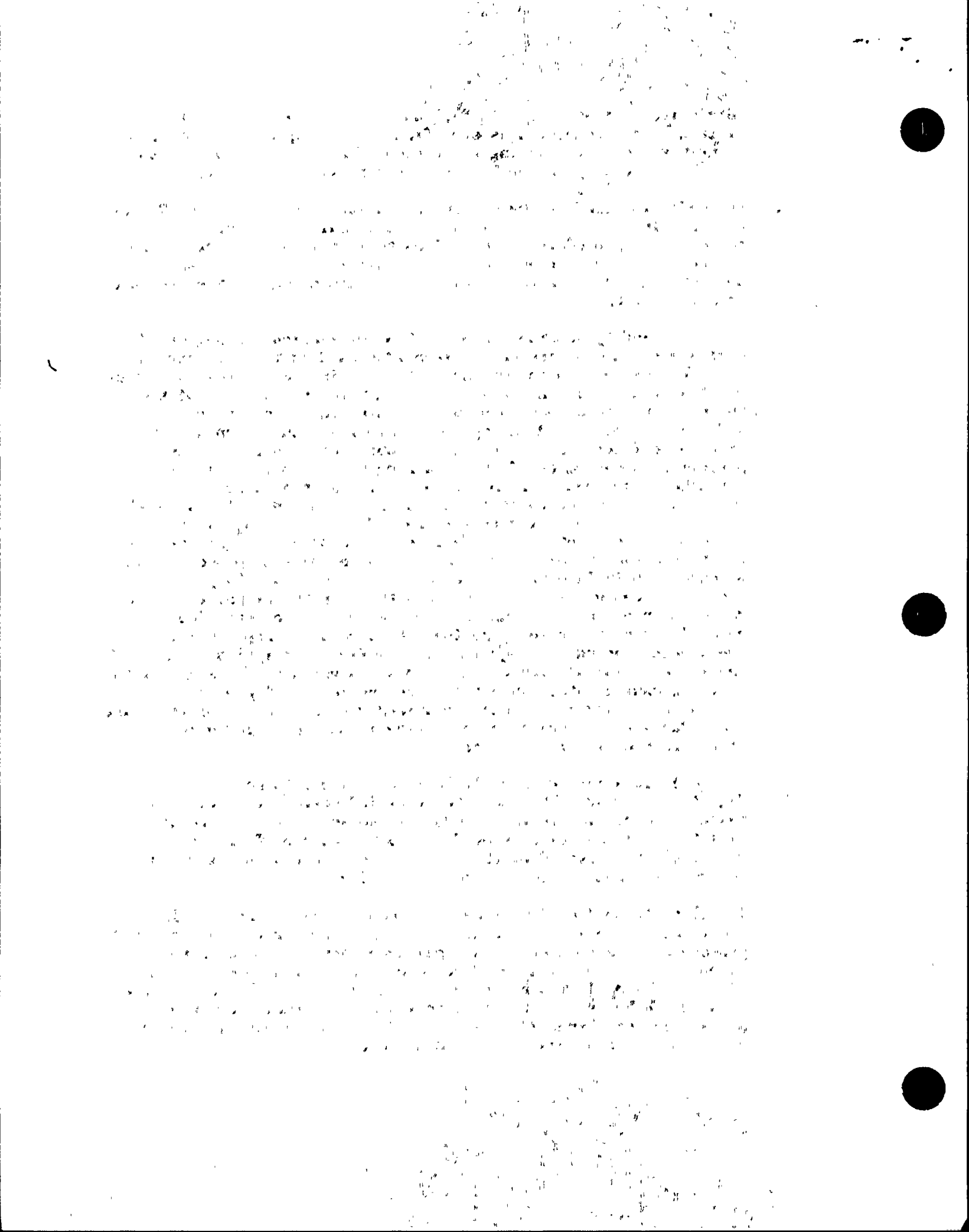
corrective actions as detailed in the licensee response to this violation were completed as specified. Training sessions on this event were completed during the period of April 1 to May 10, 1985 and the deficiency in the HPCS DG MOP circuit was corrected.

b. (Closed) Violation (85-09-02), Criteria for Diesel Generator Voltage Levels. The inspector verified that abnormal, operating and surveillance procedures were revised to require adjustment of the MOP to obtain rated generator voltage after the output breaker has been opened. A Technical Specification change request was submitted on May 22, 1985.

A Nuclear Safety Assurance Group (NSAG) evaluation was performed to evaluate the use of indicating lamps, as used in this instance for the MOP position indication, and elsewhere in the control room. The results of this evaluation indicated that in the instance of the MOP these lights are unnecessary and confusing to the operators. In addition, 17 other indicating lamps were found which appeared to provide no functional purpose to the operators. A review was also performed to determine if the remaining special purpose lights throughout the control room are identified in procedures as to importance and steps to be taken upon illumination. It was found that several of these lights were not identified in operating procedures. The NSAG recommendations to the plant manager were to 1) remove the unnecessary lights, 2) review and upgrade procedures as necessary to include the special purpose lights, and 3) prepare a good practices guideline to assist authors in the preparation and review of procedures to insure consistency. A good practices guideline was issued to operations shift managers September 24, 1985, which included a requirement to define description, function, and response for all indicating lights. A guidance document for use by the technical staff in preparation and review of procedures, as well as the other above recommendations remain to be completed. The Plant Manager has indicated that these items are included in the plant tracking log for completion.

c. (Closed) Violation (85-09-03), Operator Failure to Record Significant Event. The inspector verified corrective action was taken as identified in the licensee response to this notice of violation. In addition, procedure 1.3.5, "Reactor Trip and Recovery", was revised by the licensee and now provides for a post scram participant review session or critique.

d. (Open) Followup Item (84-22-02), Procedure Review Program. In report 85-19 the licensee committed to perform a review of Volume 2 procedures in accordance with a guidance document to be issued. An Operations department guidance document was issued on September 24, 1985. The Plant Manager advised the inspector that a guidance document to be used by the technical staff for their review and preparation of Volume 2 procedures will be issued and will be based on the operations department guidance document.



9. Management Meeting

The inspectors met with the Plant Manager approximately weekly during this period to discuss inspection finding status. On September 27, 1985 the inspectors met with the Plant Manager and members of his staff to discuss the inspection findings during this period.