UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report No.: 50-261/93-03

Licensee: Carolina Power and Light Company
P. O. Box 1551
Raleigh, NC 27602

Docket No.: 50-261 License No.: DPR-23

Facility Name: H. B. Robinson Unit 2

Inspection Conducted: January 9 - February 12, 1993

Lead Inspector: Gary A. Hamm for 3/4/93
L. W. Garner, Senior Resident Inspector Date Signed

Other Inspectors: R. E. Carroll, Project Inspector
C. R. Ogle, Resident Inspector

Approved by: H. O. Christensen 3/4/93
H. O. Christensen, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of operational safety verification, surveillance observation, maintenance observation, plant safety review committee activities, TMI item (2515/65), and followup.

Results:

A violation was identified concerning the installation of a heat trace cable type other than that specified on a work request (paragraph 5).

A violation was identified for failure to verify a welder was qualified as required by the Corporate Welding Manual (paragraph 5).

A non-cited violation was identified involving failure to expeditiously change an operating procedure to reflect more restrictive limits on allowable leakage from the penetration pressurization system. This change was necessary to ensure that total containment leakage would remain within Technical Specification limits (paragraph 3).

A non-cited violation was identified for an inadequately established procedure, in that, the procedure failed to provide sufficient instructions for the isolation of the purge outlet containment penetration (paragraph 3).

Operations response to a B steam generator blowdown isolation was good (paragraph 3).

The proper material was not specified in a work request (WR/JO) for the repair of a safety-related section of hypochlorite line. The failure to recognize that The Weld Data Report specified 316 stainless steel (SS) whereas the work request (WR/JO) specified 304 SS during the WR/JO preparation, review and initial usage was considered a weakness (paragraph 5).

Temporary repair to the A steam generator manway was well planned and executed (paragraph 5).

The engineering evaluation 92-177 review by the PNSC demonstrated a proper attitude toward safety (paragraph 6).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*R. Barnett, Manager, Outages and Modifications
*D. Bauer, Regulatory Compliance Coordinator, Regulatory Compliance
*R. Chambers, Plant General Manager, Robinson Nuclear Project
*B. Clark, Manager, Maintenance
*T. Cleary, Manager, Technical Support
D. Crook, Senior Specialist, Regulatory Compliance
C. Dietz, Vice President, Robinson Nuclear Project
R. Downey, Shift Supervisor, Operations
R. Femal, Shift Supervisor, Operations
W. Flanagan, Manager, Operations
*J. Harrison, Manager, Regulatory Compliance
P. Jenny, Manager, Emergency Preparedness
D. Knight, Shift Supervisor, Operations
*P. Musser, Manager - Engineering Technical Support, Nuclear Assessment Department
A. McCauley, Manager - Electrical Systems, Technical Support
*R. Moore, Shift Supervisor, Operations
D. Morrison, Shift Supervisor, Operations
*C. Olexik, Manager, Robinson Assessment Section
A. Padgett, Manager, Environmental and Radiation Control
D. Seagle, Shift Supervisor, Operations
*D. Taylor, Manager, Material Control And Contracts
A. Wallace, Manager - Shift Operations, Operations
*L. Williams, Supervisor, Instrumentation and Control
D. Winters, Shift Supervisor, Operations

Other licensee employees contacted included technicians, operators, engineers, mechanics, security force members, and office personnel.

NRC Managements Visits

H. Christensen, Section Chief - DRP Section 1A, visited the site on January 28 and 29, 1993. Mr. Christensen toured the facility with the residents during backshift and attended one of each of the following types of meetings: shift turnover, morning, special PNSC and a NRC licensing examiner's exit. He also met with the managers of Outages and Modifications, Operations, Technical Support, and Maintenance, as well as, the Plant General Manager.

*Attended exit interview on February 16, 1993.

Acronyms and initialisms used throughout this report are listed in the last paragraph.

2. Plant Status

Excluding a power reduction for turbine valve testing, the unit operated at full power during the inspection report period.

3. Operational Safety Verification (71707)

The inspectors evaluated licensee activities to confirm that the facility was being operated safely and in conformance with regulatory requirements. These activities were confirmed by direct observation, facility tours, interviews and discussions with licensee personnel and management, verification of safety system status, and review of facility records.

To verify equipment operability and compliance with TS, the inspectors reviewed shift logs, operation's records, data sheets, instrument traces, and records of equipment malfunctions. Through work observations and discussions with operations staff members, the inspectors verified the staff was knowledgeable of plant conditions, responded properly to alarms, adhered to procedures and applicable administrative controls, cognizant of in-progress surveillance and maintenance activities, and aware of inoperable equipment status. The inspectors performed channel verifications and reviewed component status and safety-related parameters to verify conformance with TS. Shift changes were routinely observed, verifying that system status continuity was maintained and that proper control room staffing existed. Access to the control room was controlled and operations personnel carried out their assigned duties in an effective manner. Control room demeanor and communications were appropriate.

Plant tours and perimeter walkdowns were conducted to verify equipment operability, assess the general condition of plant equipment, and to verify that radiological controls, fire protection controls, physical protection controls, and equipment tagging procedures were properly implemented.

RC-519 Erratic Operation

IR 92-34 discussed the sequence of events associated with repairs to RC-519A, the outboard primary water CIV. During post-maintenance testing, it was observed that with RC-519B, the inboard primary water CIV, closed, RC519A failed to fully close. After a vent path was provided in the upstream piping, RC-519A shut within the 10 second acceptance criteria of OST-701, Inservice Inspection Valve Test. The failure of RC-519A to fully close was attributed to a hydraulic lock that formed when the RC-519A valve's diaphragm attempted to compress the water between the two CIVs. Additionally, it was observed that RC-519A would open slightly with the primary water pump running and RC-519B failed shut. This phenomenon was attributed to seat leakage past RC-519A, which resulted in pressurization of the interspace between RC-519A and B. The pressurization caused the static line pressure to exceed the design shutting force of the RC-519A actuator, thereby, partially opening RC-519A.

The inspectors reviewed EE 92-177 which was developed to address the impact of these observed anomalies on CV integrity. The EE concluded that no concern existed with respect to CV integrity. The anomalies

observed in RC-519A's operation would only occur for pressures in the primary water piping which would be greater than any credible post-accident CV pressure. Since pressures large enough to unseat the valve could only be generated external to the CV; therefore flow would be into the CV. Hence, CV integrity would be maintained. The inspectors agreed with the conclusion that the anomalous operation of RC-519A would not compromise CV integrity.

At the end of the report period, both RC-519A and B were deactivated in the isolated position. Operations was developing a revision to OP-103, Pressurizer Relief Tank Control System, which will include steps to relieve the hydraulic lock condition associated with these CIVs.

Missing E-Ring On SDAFW Governor Linkage

On January 16, 1993, the inspectors observed, during routine equipment checks, that a retaining E-ring was missing from the SDAFW pump governor to control valve linkage connecting pin. Though the connecting pin appeared to have moved approximately one-fourth of an inch into the disengaged direction, it was engaged and performing its function, i.e, the SDAFW pump was operational. A new E-ring was installed.

PZR PORV Lift

The inspectors reviewed the circumstances surrounding the PZR PORV, PCV-456, lifts that occurred on January 31, 1993. From reviews of ERFIS data and discussions with Operations personnel who were on duty at the time of the event, the inspectors determined that at 4:27 a. m. PCV-456 had opened three times. The initial opening lasted approximately four seconds and the subsequent two openings were approximately two seconds in duration. The event occurred while the unit was at full power with no evolutions in progress. Operators, alerted to the condition by alarms, closed the associated block valve RC-535 after they confirmed that a pressure increase transient was not progress. PZR pressure decreased from 2233 psig to 2205 psig during the transient and recovered to its original value in less than three minutes.

Approximately 10 minutes before the event, the STA had informed the control room of a noisy relay in miscellaneous rack 50. After the event, visual examination of the relays in rack 50 by I & C technicians revealed no unusual conditions. Subsequent troubleshooting revealed that pressure comparator PC-445A was malfunctioning and that relay PC-445A1-X, located in rack 50, had an open coil. These components were replaced and the circuit returned to service.

Bench testing of the comparator module revealed that when the input power to the module was operated at a lower voltage than normal, the module would rapidly trip and reset. Further examination revealed that a thyristor in the module had malfunctioned.

During the PZR PORV event an unexpected alarm, steam line high differential pressure, was received from protection channel 2 for the C

main steam line. Additionally, a module was found to contain a similar defect to that discovered for PC-445A. This module was also replaced.

The common factor between the PCV-456 control circuit and the protection channel was that both were powered from instrument bus number 3. Voltage monitoring of this instrument bus revealed no abnormalities. The licensee continues to review these events and the inspectors will followup subsequent actions, if any, as part of the routine inspection program.

Inadequate CIV Leakage And Isolation Procedures

On February 2, 1993, the inside auxiliary operator reported that the total leakage from the C PPS header had increased to 1.25 SCFM. When this leakage was added to the other three PPS header leakage rates, the total, 1.69 SCFM, exceeded the 1.57 SCFM acceptance criterion stated in OMM-008, Minimum Equipment List. There was no LCO action statement for TS 4.4.1; TS 3.0 was entered at 3:45 p.m., (i.e., unit in hot shutdown within 8 hours and cold shutdown within the following 30 hours). At 4:38 p.m. with PPS isolated to penetration 38, purge outlet line, the total PPS header leakage was 1.48 SCFM and decreasing. The penetration was re-pressurized and a leak check was performed on V12-8, purge outlet outboard CIV. At 5:21 p.m. with V12-8 de-activated in the isolated position, the leakage from V12-8 was determined to be zero. With no evidence of through penetration leakage, TS 3.0 was exited at that time. By the process of elimination, it was deduced that V12-9, the purge outlet inboard CIV, was the source of the PPS leakage to penetration 38 and hence, V12-9 was declared inoperable. With V12-8 previously de-activated in the isolation position, the action statement associated with TS 3.6.3 for an inoperable CIV was also met at this time.

At 8:35 p.m. that same day, the inspectors while reviewing the event with the SS questioned whether the 1.57 SCFM acceptance criterion in OMM-008 was the proper value. The inspectors had previously reviewed EST-010, Containment Personnel Airlock Leakage Test, performed on December 21, 1992, that stated that the PPS header leakage rate in OMM-008 would need revision. Allowable PPS header leakage rate was calculated by subtracting measured containment airlock leakage from the total leakage allowed by TS 4.4.1.2. Subsequent review by the licensee indicated that OMM-008 should have been revised to require PPS header leakage to be less than 1.45 SCFM. The inspectors verified via shift logs that PPS leakage without PPS in service to penetration 38 was 1.04 SCFM at 8:30 p.m. that day, i.e., less than 1.45 SCFM.

A sample of shift logs taken between December 21, 1992 and February 2, 1993, were reviewed. The inspectors found no indication that total PPS leakage exceeded 1.45 SCFM during the time OMM-008 had the non-conservative acceptance value for total PPS leakage.

The inspectors reviewed previously completed EST-010s and OMM-008 revisions. The inspectors determined that delays of one to two months in revising OMM-008 after EST-010 was performed were typical. The time

delay appeared to be independent of whether or not the required change to OMM-008 was more or less restrictive. For example, EST-010 performed November 12, 1991, indicated that OMM-008 should be revised with a more restrictive limit; however, OMM-008 revision 60, which incorporated the change was not implemented until February 10, 1992. During the majority of this interval, the unit operated at full power.

Failure to revise OMM-008 in a timely manner was a violation. Corrective action was taken on February 4, 1993, to implement OMM-008 revision 65 which restricts total PPS leakage to 1.45 SCFM. In addition, EST-010 will be revised prior to its next use to require OMM-008 to be revised in an expeditious manner. This should preclude the recurrence of this event. Thus, this NRC identified violation is not being cited because criteria specified in Section VII.B of the NRC Enforcement Policy were satisfied. This item is identified as a NCV: Failure To Revise Minimum Equipment List Procedure To Reflect A More Restrictive PPS Leakage Rate, 93-03-01.

V12-9 was repaired and returned to service on February 5, 1993. During the repair, TS 3.0 was entered during leak testing. The inspectors determined that this entry was necessary to allow the valve to be repaired and returned to service. The entry into TS 3.0 was reported to the NRC as required by 10 CFR 50.72.

During the TS 3.0 entry review, the inspectors questioned whether the V12-8 and V12-9 interspace PPS supply/vent (three-way solenoid) valve, EV-1724, should be de-activated or secured to comply with TS 3.6.3 when V12-9 is inoperable. This valve was installed to allow PPS pressure to be bled off the interspace such that the 42-inch purge valves can be opened. The valve would only energize to vent to the atmosphere via the main stack when either purge exhaust fan's RTGB control switch is positioned to start. Only after all the purge valves come full open and the exhaust fan starts, would this solenoid valve de-energize to close the vent path. OWP-002, Containment Vessel Isolation, section CV-4 page 3, provided instructions "TO DECLARE V12-9 INOPERATIVE AS PER T.S. 3.6.3". The section provided instructions to de-activate and secure V12-8 as required; however, EV-1724 was not addressed. The licensee subsequently agreed that EV-1724 should be isolated by use of a manual valve to comply with TS 3.6.3. Failure to adequately establish OWP-002 to provide instructions to properly isolate the penetration as required by TS is a violation. At the end of the report period, the licensee was in the process of revising this procedure, as well as, other procedures associated with other PPS supplied penetrations which have a similar configuration. The inspectors verified via a drawing review (G-190261 sheets 1 through 4), that all the similar configurations had been identified. This NRC identified violation is not being cited because criteria specified in Section VII.B of the NRC Enforcement Policy were satisfied. This item is identified as a NCV: Failure to Adequate Establish OWP-002 To Isolate A CV Penetration As Required By TS, 93-03-02.

B S/G Blowdown Isolation

On February 11, 1993 at 4:34 p.m. radiation monitor R-19B alarmed and initiated isolation of the B S/G blowdown and its associated sample lines. RCS leak rate determination and B S/G samples indicated that a primary to secondary leak had not occurred in the B S/G. Subsequent investigation revealed that during the restoration of a clearance boundary for the PASS system, primary sample fluid had leaked backward through two check valves (SS-31 and V-4169) into the B S/G blowdown sample stream, causing the R-19B alarm. Blowdown radiation monitors for the A and C S/Gs were unaffected, since their individual cross-connect check valves, SS-30 and SS-32 respectively, did not leak. However, to prevent future occurrences, the manual isolation valves (SS-8A, B and C), associated with S/G's blowdown to PASS flowpaths, were closed. Within ten minutes of closing SS-8B, the count rate for R-19B decreased from approximately 3 Kcpm to a normal value of approximately 1 Kcpm. WR/JO 93-ACAJ1 and 93-ACAK1 were issued to repair the leaking check valves.

The inspectors were in the control room at the time the isolation occurred. Operators' response to the event was good, (i.e., isolation valves were verified to be closed; AOP-005, Radiation Monitoring System, was implemented; and the EAL flowchart and AP-030, NRC Reporting Requirements, were correctly reviewed for event classification and reportability).

Two NCVs were identified. Except as noted above, the area/program was adequately implemented.

4. Surveillance Observation (61726)

The inspectors observed certain safety-related surveillance activities on systems and components to ascertain that these activities were conducted in accordance with license requirements. For the surveillance test procedures listed below, the inspectors determined that precautions were adhered to, the required administrative approvals were obtained prior to test initiation, testing was accomplished by qualified personnel in accordance with an approved test procedure, the tests were completed at the required frequency, and that the tests conformed to TS requirements. Upon test completion, the inspectors verified the recorded test data was complete, accurate, and that the systems were properly returned to service. Specifically, the inspectors witnessed/reviewed portions of the following test activities:

OST-406	TSC/EOF/PAP Diesel Generator (Weekly)
OST-750	Control Room Emergency Ventilation System (Bi-Weekly)

No violations or deviations were identified. Based on the information obtained during the inspection, the area/program was adequately implemented.

5. Maintenance Observation (62703)

The inspectors observed safety-related maintenance activities on systems and components to ascertain that these activities were conducted in accordance with TS, approved procedures, and appropriate industry codes and standards. The inspectors determined that these activities did not violate LCOs and that required redundant components were operable. The inspectors verified that required administrative, material, testing, radiological, and fire prevention controls were adhered to. In particular, the inspectors observed/reviewed the following maintenance activities:

MST-101	Boric Acid Heat Tracing Operability
TM-93-700	S/G A Manway Leak Repair
WR/JO 92-ARHU1	Perpendicularity Measurement Between A CCW Pump Shaft And Seal Gland
WR/JO 92-ASHX1	Hypochlorite Pipe Repair
WR/JO 93-AARG1	Secondary Heat Trace Circuit 25 Repairs

Improper Secondary Heat Trace Cable

On January 15, 1993, the inspectors witnessed repairs to secondary heat trace circuit 25 and the post-maintenance testing that was performed prior to returning the circuit to service. Repair of this circuit, i.e., replacement of heat cable for branch 2, required a voluntary entry into the LCO of TS 3.2.3.c. The LCO allowed operation to continue for 24 hours with one channel of heat tracing out of service before placing the reactor in hot shutdown. The LCO was entered at 9:03 a.m. and was exited approximately five hours later at 2:00 p.m..

Both the primary and secondary heat trace circuits (channels) were installed as 100% redundant circuits. Each circuit had been designed to be capable of maintaining the boric acid solution inside the piping at temperatures above the crystallization temperature. Circuit 25 maintained the boric acid piping from the boric acid filter discharge isolation valve, V-348, to the boric acid to charging pumps suction header isolation valve, MOV-350, at an elevated temperature. During the time the secondary circuit was out of service for repair, the primary circuit was operational. Therefore, the entry into the LCO had minimal safety significance.

The secondary circuit had been previously repaired on January 11, 1993, after it was found to be open during normal surveillance activities. Following the January 11 repair, the secondary circuit operated with current values which were minimally acceptable per MST-101. Hence, the inspectors concluded that the voluntary entry into the TS LCO was prudent to increase the current values associated with this secondary circuit.

After the January 15 repair, the inspectors attempted to determine why the January 11 repair had been marginally adequate. During these inspection activities the inspectors were confronted with conflicting verbal statements and facts. Eventually, the issue was resolved when the electrician admitted that he had installed on January 11, 1993, heat trace cable SF2A40, were as WR/JO 93-AARG1 specified heat trace cable 2B10.

This event revealed several personnel errors/deficiencies. These were: the unauthorized substitution of materials on a safety-related maintenance activity; failure of the electrician to correct erroneous information that was provided by management to the inspectors; removal from the warehouse of material with part numbers other than that specified on a WR/JO; failure to document on the WR/JO the materials issued for the job; and, the WR/JO specified a non-Q classification for the heat trace cable whereas the Q-list identified it as Q (see discussion below). Failure to install 2B10 as specified on the WR/JO on January 11, is a VIO: Failure To Install The Heat Trace Cable Type Specified In The WR/JO, 93-03-03.

At the end of the report period, the licensee was in the process of reviewing other work activities performed by the electrician to ensure that they had been properly performed. The electrician's access to the protected area has been withdrawn. He also has been relieved of duties. The licensee continues to review the event to determine what actions are required to ensure that personnel adhere to established processes and procedures.

The inspectors and the system engineer independently performed calculations based upon the measured current in the circuit which demonstrated that secondary heat trace circuit 25 was functional with SF2A40 installed. The reduced current in the circuit resulted from the resistance of SF2A40 being approximately 50% greater per foot than 2B10. Thus, the installation of SF2A40 had minimal safety significance.

Two other discrepancies were noted by the inspectors. One involved the WR/JO which indicated that the heat trace cable was non-Q, whereas TMM-003, Q List Control Procedure, revision 45, step 3.11.L listed the heat trace cable as Q. Subsequent to the end of the report period, the inspectors were shown documentation which indicated that the heat trace cable was not required to be Q. However, the fact that the WR/JO had specified a different Q status than the Q list remained a concern. TMM-003 will be revised to reflect this non-Q status. Also, an inspection of storage locations of other heat trace cable types determined that one location contained two different types of cables. These items were brought to management's attention for resolution.

Hypochlorite Pipe Repair

On January 28, 1993, the inspectors observed WR/JO 92-ASHX1 activities associated with the replacement of a section of hypochlorite injection piping for the south SW header. The inspectors reviewed activities

involving the shop fabrication of a section of replacement piping consisting of two small lengths of 304 SS piping and three 316 SS elbows, all one inch in diameter. At the time of the inspection, the piping and elbows were tack welded into an assembly in the shop awaiting QC inspection prior to completing the welds.

The inspectors determined that the welder who had accomplished the tack welds for the pre-fabricated replacement assembly was not qualified per the latest the Welder Qualification Status Report, dated January 15, 1993, to perform welds on pipe of less than 2.5 inches in diameter. The mechanical maintenance supervisor admitted that he had not reviewed the Welder Qualification Status Report prior to assigning a welder to the task. This was contrary to Corporate Welding Manual procedure NW-03, Welding Material Control, which specified that "prior to performing the welding task the welder's foreman/supervisor shall verify that the welder is certified to perform the welding task by referring to a current copy of the Welder Qualification Status Report." This requirement had been recently re-emphasized in a December 8, 1992, memorandum from the Robinson Project Welding Engineer to General Plant Distribution, i.e., the mechanical maintenance supervisor. After the discrepancy was identified, additional documentation was provided to the inspectors which demonstrated that the welder was qualified per the appropriate ASME Code to perform the welding. However, the failure to verify the welders qualification as required by The Corporate Welding Manual is a VIO: Failure To Verify Welder's Qualification, 93-03-04.

The QC inspector, who was also witnessing the job, determined that a conflict existed between material specified on the WR/JO and the Weld Data Report. The tack-welded piping was 304 SS as specified on the WR/JO; however, the Weld Data Report was for 316 SS. The inspectors reviewed: the Weld Data Report, WR/JO 92-ASHX1, M-972 which installed the piping, and Service and Cooling Water Drawing B-190174 and determined that 316 SS was the proper material for the replacement piping. From interviews with the responsible planner and his supervisor, the inspectors concluded, as did the licensee, that the improper material was specified in the WR/JO as a result of a failure of the planner to properly confirm that a part number provided to him verbally by another individual was 316 SS. The failure to specify the proper material in the WR/JO or to recognize the conflicting requirements between The Weld Data Report and the WR/JO during the WR/JO preparation, review and initial usage was considered a weakness.

Due to the number of problems associated with this work activity, the task was stopped by the licensee until appropriate corrective actions could be implemented.

A S/G Manway Leak Repair

On January 31, 1993, OST-901, HVH Condensate Measuring System (Weekly), results indicated an order of magnitude increase in the amount of condensate collected from that measured during the previous performance of the OST. Since the CMS collects and measures the amount of moisture

condensed on the CV fan coolers' cooling coils, the increase quantity indicated a steam leak had developed inside the CV. Since no increase was observed in the daily RCS leak rate, it was surmised that the leakage was from the secondary system. On February 1, it was determined that the amount of liquid pumped from the CV sump over the previous weekend was also unusually high, i.e., 700 to 1000 gallons. CV entries on February 2 and subsequent days, identified the leakage as originating from four leaks around the A S/G manway gasket. The leaks were repaired on February 5, by the Leak Repairs Division of Team Environmental Services, Inc.. The repair essentially formed a new gasket outside the existing one by use of a sealant. Specifically, the repair consisted of the following steps: replacement of every other manway bolt with an elongated stud and special washer with a sealant injection port; placement of SS wire in the gap between the manway cover and the S/G nozzle; installation of a clamp to retain the sealant until it solidified; and injection of sealant into the space between the existing gasket and the clamp via the injection washers. After the repair there was no evidence of leakage. Subsequent performances of OST-901 have yielded normal results, i.e., approximately 0.03 gpm of condensate. The scaffolding that was erected for the repair was left in place in case additional sealant needs to be added.

Inspection activities associated with the repair included: participation in a conference call between NRR and the licensee concerning the proposed repair technique; review of TM 93-700, S/G A Manway Leak Repair; attendance at the pre-job briefing; discussions with cognizant engineering personnel and Team Environmental Services personnel, and examination of the parts used in the repair. The repair was well planned and executed.

Two violations were identified. Except as noted above, the area/program was adequately implemented.

6. Onsite Review Committee (40500)

The inspectors evaluated certain activities of the PNSC to determine whether the onsite review functions were conducted in accordance with TS and other regulatory requirements. In particular, the inspectors attended PNSC meeting conducted on January 20, January 22, and January 28, 1993. It was ascertained that provisions of the TS dealing with membership and review process were satisfied. A brief description of each PNSC attended follows.

The January 20, 1993, meeting was a regularly scheduled meeting which included a security plan annual review, a review of a potential unreviewed safety question regarding the use of a high burnup test assembly in Cycle 16, and several other routine items.

The January 22, 1993, special PNSC meeting consisted of a review of potential unreviewed safety questions raised during a 10 CFR 50.59 review of EE 92-177. This engineering evaluation was developed to justify continued operation with the observed performance of RC-519A,

(see paragraph 3). The meeting was adjourned prior to any formal PNSC action to allow the PNSC members additional time to study the issue. At the subsequent PNSC meeting on January 25, 1993, Engineering Evaluation EE 92-177 was approved as JCO 93-001. The inspectors independently reviewed EE 92-177 and concurred with the JCO for returning RC-519 A & B to service. The inspectors considered the decision to adjourn to allow additional time to study this complex issue displayed the proper attitude toward safety.

The January 28, 1993, PNSC meeting consisted of a review of a potential unreviewed safety question resulting from a proposed change to OP-101, RCS and RCP Startup and Operation. The proposed change involved starting a RCP with indications of seal leakage. The PNSC determined that the procedure provided adequate controls to prevent operating the pump outside of the recommended design margins. The PNSC concluded that neither an unreviewed safety question nor an increase in the probability of a malfunction of equipment important to safety existed. The inspectors independently reviewed the proposed change and concurred with the licensee's assessment.

No violations or deviations were identified. Based on the information obtained during the inspection, the program area was adequately implemented.

7. TMI Item II.F.2.4 Followup (2515/65)

TMI item II.F.2.4 required the installation of additional reactor vessel water level instrumentation. The RVLIS system, installed to meet this requirement, was described in a letter from L. W. Eury to the NRC, dated September 16, 1987. From a review of M-526, Reactor Vessel Level Instrumentation System, the inspectors verified that the installed system corresponded to the description in this letter. During RO-14, the inspectors performed a partial system walkdown, both inside and outside the CV, to verify that the piping and components were properly installed and appeared to be functional. The inspectors also witnessed some of the refueling interval instrumentation calibrations performed by Westinghouse personnel. No significant problems were identified.

Operability requirements for the system were contained in TS Table 3.5-5 and required surveillance tests were defined in TS Table 4.1-1. The inspectors verified that procedures OST-054, Core Cooling Monitor Channel Check (Monthly), and MST-051, Core Cooling Monitor Channnel Testing (Refueling Interval), were established to perform the surveillance testing prescribed in Table 4.1-1. The inspectors also verified that calibration data sheets were included in MMM-006 Appendix B, Calibration Data Sheets, for each RVLIS level, pressure, and RTD instrument. As part of the inspection program, the inspectors routinely verify that RVLIS is operational as required by TS or, if not operational, appropriate WR/JOs are initiated and the TS LCO entered. Based upon the above described inspection activities, this item is considered closed.

8. Followup (92700, 92701, 92702)

(Closed) LER 92-04, Technical Specification Violation During 1987 ILRT. During preparations for performing the ILRT and SIT during RO-14, the licensee discovered that contrary to TS 3.14.3.2.a and 3.14.4.2.a, the action statements associated with these TS were not implement during the 1987 ILRT when the Fire Water Pre-action System and the Fire Hose Stations inside the CV were rendered inoperable. As indicated in the LER, a TS change request (Amendment 139) was submitted and subsequently approved by the NRC to allow the provisions of these TS to be suspended during ILRT and SIT performances. This item is considered to be closed.

(Closed) LER 92-16, TS Violation Due To Failure To Implement Action Statement. This event involved Operations taking credit for a CS pump surveillance test conducted seven hours earlier to meet TS 3.3.2.2.a requirement to demonstrate operability of the CS pumps when CV fan cooler HVH-3 was declared inoperable. The Operations Manager determined that this interpretation of TS was inappropriate and that a violation of TS has occurred. The inspectors determined that the actions discussed in the LER were sufficient to preclude recurrence. This item is considered closed.

(Closed) LER 92-18, Degraded Condition: Loss Of Both Safety Injection Pumps Due To Foreign Material Intrusion. This item was discussed in IRs 92-21, 92-24, and 92-27 and was the subject of escalated enforcement action EA 92-167. Followup of this LER will be performed as part of the followup inspection of that escalated enforcement action (VIO 92-24-01). Thus, for administrative tracking purposes this item is considered closed.

(Closed) VIO 91-01-04, OST-351 Revision 10 Was Inadequate In That It Did Not Completely Test The MSIV Logic. The inspectors reviewed the Reply To A Notice Of Violation dated April 3, 1991. The inspectors verified that OST-351, Containment Spray System, was revised as committed in the reply and that the current revision (number 13) to the procedure remained adequately established to fully test the circuit. The adequacy of other test procedures was addressed as corrective action for VIO 90-11-01. Thus, followup inspection of VIO 90-11-01 will address other test procedures. This item is considered closed.

(Closed) IFI 92-07-02, Review Actions To Resolve The Failure To Provide Top Lateral Support To Vertical Hxs. This item was applicable to the RHR and CVCS non-regenerative and seal water return Hxs. The inspectors verified that lateral supports were added to each of these Hxs. This item is considered closed.

(Closed) VIO 92-24-02, Failure To Take Proper Corrective Action Associated With July 8th Plastic Blocking B SI Pump. This item, identified as an apparent violation, was considered during preparation of escalated enforcement action EA 92-167. During this review, it was determined that this item was redundant to the EA 92-167 action and thus was withdrawn. This item is considered closed.

No violations or deviations were identified. Based on the information obtained during the inspection, the area/program was adequately implemented.

9. Exit Interview (71701)

The inspection scope and findings were summarized on February 16, 1993, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection findings listed below and in the summary; however, at that time, item 93-03-03 was identified as an URI. After regional review, item 93-03-03 was characterized as a VIO. The Regulatory Compliance Manager was notified of this change on February 18, 1993. Dissenting comments were not received from the licensee. The licensee did not identify as proprietary any of the materials provided to the inspectors during this inspection.

Item Number	Description/Reference Paragraph
93-03-03	VIO - Failure To Install The Heat Trace Cable Type Specified In The WR/JO (paragraph 5).
93-03-04	VIO - Failure To Verify Welder's Qualification, (paragraph 5).

The following NCVs were identified and reviewed during this inspection period.

Item Number	Description/Reference Paragraph
93-03-01	Failure To Revise Minimum Equipment List Procedure To Reflect A More Restrictive PPS Leakage Rate (paragraph 3).
93-03-02	Failure to Adequate Establish OWP-002 To Isolate A CV Penetration As Required By TS (paragraph 3).

10. List of Acronyms and Initialisms

a.m.	Ante Meridiem
AOP	Abnormal Operating Procedure
AP	Administrative Procedure
ASME	American Society of Mechanical Engineers
ASCO	American Switch Company
CFR	Code of Federal Regulation
CIV	Containment Isolation Valve
CMS	Condensate Measuring System
CS	Containment Spray
CV	Containment Vessel
CVCS	Chemical Volume and Control System
DRP	Division of Reactor Projects

EA	Enforcement Action
EAL	Emergency Action Level
EE	Engineering Evaluation
EOF	Emergency Operations Facility
ERFIS	Emergency Response Facility Information System
gpm	Gallons Per Minute
HVH	Heating Ventilation Handling
Hx	Heat Exchanger
I&C	Instrumentation & Control
i.e.	That is
IFI	Inspector Followup Item
ILRT	Integrated Leak Rate Test
IR	Inspection Report
JCO	Justification For Continued Operation
Kcpm	Thousand Counts Per Minute
LCO	Limiting Condition for Operation
M	Modification
MMM	Maintenance Management Manual
MOV	Motor Operated Valve
MSIV	Main Steam Isolation Valve
MST	Maintenance Surveillance Test
NCV	Non-cited Violation
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation, Office of (NRC)
OMM	Operations Management Manual
OP	Operations Procedure
OST	Operations Surveillance Test
OWP	Operations Work Procedure
p.m.	Post Meridiem
PAP	Personnel Access Portal
PASS	Post Accident Sample System
PC	Pressure Comparator
PCV	Pressure Control Valve
PM	Preventive Maintenance
PNSC	Plant Nuclear Safety Committee
PORV	Power Operated Relief Valve
PPS	Penetration Pressurization System
Psig	Pounds per square inch - gage
PZR	Pressurizer
Q	Quality
QC	Quality Control
RC	Reactor Coolant
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RO	Refueling Outage
RTD	Resistance Temperature Detector
RTGB	Reactor Turbine Gauge Board
RVLIS	Reactor Vessel Level Instrumentation System
SCFM	Standard Cubic Feet per Minute
SDAFW	Steam Driven Auxiliary Feedwater
S/G	Steam Generator

SI	Safety Injection
SIT	Structural Integrity Test
SS	Sample System
SS	Stainless Steel
STA	Shift Technical Advisor
SW	Service Water
TM	Temporary Modification
TMI	Three Mile Island
TMM	Technical Support Management Manual
TS	Technical Specification
TSC	Technical Support Center
URI	Unresolved Item
VIO	Violation
WR/JO	Work Request/Job Order