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

Report No.: 50-261/85-23

Licensee: Carolina Power and Light Company
411 Fayetteville Street
Raleigh, NC 27602

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

Facility Name: H. B. Robinson

Inspection Conducted: July 11 - August 10, 1985

Inspectors: H. E. P. Krug, Senior Resident Inspector — 12 AUG 85 Date Signed

H. C. Whitcomb, III, Resident Inspector — 12 AUG 85 Date Signed

Approved by: for P. E. Fredrickson, Section Chief — 12 AUG 85 Date Signed
Division of Reactor Projects

SUMMARY

Scope: This routine, announced inspection involved 285 resident inspector-hours on site in the areas of technical specification compliance, plant tour, operations performance, reportable occurrences, housekeeping, site security, surveillance activities, maintenance activities, quality assurance practices, radiation control activities, outstanding items review, IE Bulletin and IE Notice followup, organization and administration, independent inspection and enforcement action followup.

Results: Of the areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*R. Barnett, Maintenance Supervisor, I&C
G. Beatty, Manager, Robinson Nuclear Project Department
*R. Chambers, Engineering Supervisor, Performance
C. Crawford, Manager, Maintenance
J. Curley, Manager, Technical Support
B. Flanagan, Engineering Supervisor - Nuclear
*W. Gainey, Maintenance Supervisor, Mechanical
F. Lowery, Manager, Operations
*A. McCauley, Principal Engineer, Onsite Nuclear Safety
*R. Morgan, Plant General Manager
*C. Mosely, Manager, Operations QA/QC
*D. Nelson, Operating Supervisor
B. Reick, Manager, Control and Administration
*R. Smith, Manager, Environmental and Radiation Control
*D. Stadler, Director, Regulatory Compliance
J. Sturdavant, Technician, Regulatory Compliance
A. Wallace, Director, Onsite Nuclear Safety
C. Wright, Senior Specialist, Regulatory Compliance
*H. Young, Director, QA/QC

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

*Attended exit interview

2. Exit Interview (30702, 30703)

The inspection scope and findings were summarized on August 9, 1985, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings. No written material was provided to the licensee by the resident inspectors during this report period. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters (92702)

The inspectors determined that licensee responses for the following violations were in conformance with regulatory requirements and that the corrective measures were completed. Through record reviews, observation and discussions with licensee personnel, the inspectors verified that the measures taken to correct the deficiencies and avoid further items of noncompliance were effected as described and within the time period

specified in the reply. A review of any additional licensee commitments was also completed to assure compliance with regulatory requirements.

(Closed) Violation 50-261/84-41-02: "Recording Data Rounded Off." Licensee operations personnel were counselled on the need to record data prior to rounding.

(Closed) Violation 50-261/84-44-01: "Containment Integrity Breach." Licensee personnel involved were counselled on the use of the necessary administrative controls required for the manipulation of the safety related valves involved.

Within the areas inspected, no violations or deviations were identified.

4. Plant Tour (71707, 62703, 71710)

The inspectors conducted plant tours periodically during the inspection interval to verify that monitoring equipment was recording as required, equipment was properly tagged, operations personnel were aware of plant conditions and maintenance activities, and plant housekeeping efforts were adequate. The inspectors determined that appropriate radiation controls were properly established, excess equipment or material was stored properly, and combustible material was disposed of expeditiously. During tours the inspectors looked for the existence of unusual fluid leaks, piping vibrations, pipe hanger and seismic restraint abnormal settings, various valve and breaker positions, equipment clearance tags and component status, adequacy of fire fighting equipment, and instrument calibration dates. Some tours were conducted on backshifts. Plant housekeeping was observed to be outstanding.

The inspectors performed valve lineup verifications and system status checks on the following systems:

a. Residual Heat Removal System
b. Reactor Trip System
c. Emergency Station Batteries
d. Service Water System
e. Emergency Diesel Generators
f. Auxiliary Feedwater System
g. Containment Spray System

Within the areas inspected, no violations or deviations were identified.

5. Technical Specification Compliance (71707, 62703, 61726)

During this reporting interval, the inspectors verified compliance with selected limiting conditions for operation (LCO's) and reviewed results of selected surveillance and maintenance activities. These verifications were accomplished by direct observation of monitoring instrumentation, valve positions, switch positions, and review of completed logs and records.

Within the areas inspected, no violations or deviations were identified.

6. Plant Operations Review (71707, 62703, 61707, 61711)

Periodically during the inspection interval, the inspectors reviewed shift logs and operations records, including data sheets, instrument traces, and records of equipment malfunctions. This review included control room logs, maintenance work requests, auxiliary logs, operating orders, standing orders, jumper logs, and equipment tagout records. The inspectors routinely observed operator alertness and demeanor during plant tours. The inspectors conducted random off-hours inspections during the reporting interval to assure that operations and security remained at an acceptable level. The inspectors verified that the licensee maintained an adequate shutdown margin during this reporting period. The licensee also satisfied the TS requirements for target axial flux difference during the reporting period.

Within the areas inspected, no violations or deviations were identified.

7. Physical Protection (71707)

The inspectors verified by observation and interview during the reporting interval that measures taken to assure the physical protection of the facility met current requirements. Areas inspected included the organization of the security force, the establishment and maintenance of gates, doors and isolation zones in the proper condition, that access control and badging was proper, that search practices were appropriate, and that escorting and communications procedures were followed.

During the inspection period, the inspectors continued to monitor the progress and activities of the Security Task Force with respect to the HBR Security System Upgrade Project. The inspectors attended the Security Task Force meetings held on July 24 and August 7,1985. Modification schedules were discussed in detail and the establishment of required action to accomplish the scheduled deadlines was defined.

Within the areas inspected, no violations or deviations were identified.

8. Monthly Surveillance Observation (61726, 56700)

The inspectors witnessed the execution of the monthly operability test of the auxiliary feedwater (AFW) components on July 16,1985. This test was conducted using Operations Surveillance Test Procedure OST-201 (Revision 11) titled "Auxiliary Feedwater System Component Test (Monthly)." The inspectors determined that the surveillance test procedure conformed to Technical Specifications (TS) requirements and verified that Limiting Conditions for Operations (LCO's) were met and that the surveillance test was completed at the required frequency. The inspectors also verified that the required administrative approvals and tagouts were obtained prior to initiating the test, that the testing was accomplished by qualified personnel in accordance with the latest revision of the approved test

procedure and that the required test instrumentation (RPM indicator and vibration detector) was properly calibrated.

OST-201 is designed to verify mechanical performance and assess the operational readiness of the auxiliary feedwater components as required by TS 4.8.1, 4.8.2, 4.8.3, and 4.8.4. Specifically, the TS requires that each motor driven AFW pump, the steam driven AFW pump, and the associated discharge valves shall be tested by operator action on a monthly frequency and that these tests shall be considered satisfactory if control board indication and subsequent visual observation of the equipment demonstrates that all components have operated properly.

Upon completion of the testing, the inspectors observed that the recorded test data was accurate, complete and met TS requirements and independently verified that the systems were properly returned to service.

Within the areas inspected, no violations or deviations were identified.

9. Monthly Maintenance Observation (62703, 62700)

a. During the period July 30 to August 5, 1985, the inspectors reviewed the electrical cable repair activities associated with the "D" Service Water Pump and determined that this safety-related maintenance was conducted in accordance with approved procedures, Technical Specifications (TS) and appropriate industry codes and standards. The inspectors determined that these activities were not violating Limiting Conditions for Operations (LCO's) and that redundant components were operable. The inspectors also determined that (1) Special Procedure SP-526 (Revision 1) titled "Special Procedure for Repairing a Direct Burial, 3-Conductor, 500 MCM, 480 Volt Cable with Damaged Jacket and with Damaged Insulation On At Least One Conductor" was adequate to control the activity, (2) QC inspection points were established where required, (3) required administrative approvals and tagouts were obtained prior to work initiation, and (4) replacement parts and materials used were properly certified. The inspectors verified that these activities were accomplished by qualified personnel using the controlled copy of SP-526. Additionally, the inspectors reviewed several outstanding job orders to determine that the licensee was giving priority to safety-related maintenance and a backlog which might affect plant performance was not developing on a given system.

b. The inspectors observed the final stages of the "A" Emergency Diesel Generator starting air dryer piping installation as prescribed by Maintenance Work Request and Authorization Form # ENG-021. The inspectors determined that required administrative approvals and tagouts were obtained prior to work initiation. During the review, the inspectors noted that copies of maintenance work requests and authorization forms which are generated by organizations other than the Operations Department are not maintained in the control room, but are available to control room operators upon request by the Shift Foreman to the organization which generated the maintenance request. However,

plant procedures properly require that the Operations Department issue clearances and control the removal and restoration of safety related equipment. These administrative features will be inspected in more detail during future maintenance activity observations.

Within the areas inspected, no violations or deviations were identified.

10. ESF System Walkdown (71710)

During the period of July 25 to 26,1985, the inspectors verified the operability of the engineered safety features (ESF) system by performing a walkdown of the accessible portions of the safety injection, residual heat removal and containment spray systems as prescribed by Operations Surveillance Test Procedure OST-158 (Revision 2) titled "Safety Injection and Containment Spray Systems Flowpath Verification Monthly Interval (At Power)." The inspectors confirmed that the licensee's system lineup procedures matched plant drawings and the as-built configuration. Minor drawing discrepancies noted by the inspectors were discussed with the licensee and actions necessary to correct these deficiencies have been established. The inspectors looked for equipment conditions and items that might degrade performance (that hangers and supports were operable, acceptable housekeeping, etc.). The inspectors verified that valves including instrumentation isolation valves were in proper position, power was available, and valves were locked as appropriate. The inspectors compared both local and remote position indications.

Within the areas inspected, no violations or deviations were identified.

11. Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities (92700, 90714, 93702)

For onsite followup of nonroutine events, the inspectors determined that the licensee had taken corrective action(s) as stated in written reports of the events and that these responses to the events were adequate and met regulatory requirements, license conditions, and commitments. During this reporting period, the inspectors reviewed the following LERs to verify that the report details met license requirements, identified the cause of the event, described appropriate corrective actions, adequately assessed the event, and addressed any generic implications.

LER	EVENT
83-018 Revision 1	Design Deficiency in the Post Accident Sampling System
85-013	Reactor Trip due to "A" Steam Generator Lo-Lo level signal generated during maintenance
85-014	Control Room Shift Complement

85-015 Reactor Trip due to Reference Leg Blockage

Corrective action and appropriate licensee review of the events listed above was verified. Specific details of the reactor trip which occurred on July 5, 1985 were reviewed by the inspectors at the time of the trip and are accurately described in LER 85-015 (dated July 31, 1985). The inspectors had no further comments.

Within the areas inspected, no violations or deviations were identified.

12. Organization and Administration (36700)

Discussions of current safety related activities were conducted with plant management and technical personnel during this reporting period including, and in particular, the Environmental and Radiation Controls, the Quality Assurance, Regulatory Compliance and Onsite Nuclear Safety organizations. Topics discussed included licensee activities associated with main steam isolation valves, plant modifications activities including the security system upgrade, ongoing construction activities, and communications interface.

Within the areas inspected, no violations or deviations were identified.

13. Onsite Review Committee (40700)

The inspectors reviewed the activities of the Plant Nuclear Safety Committee (PNSC) to ascertain that the onsite review functions were conducted in accordance with Technical Specifications (TS) and other regulatory requirements. The inspectors (1) attended the regular monthly PNSC meeting held on July 17, 1985 as non-participants and observed the conduct of the meeting; (2) ascertained that provisions of the TS dealing with membership, review process, frequency, qualifications, etc., were satisfied; (3) reviewed meeting minutes to confirm that decisions and recommendations were accurately reflected in the minutes; and (4) followed up to independently confirm that recommended corrective actions were completed.

HBR2 Post Trip and Safeguards Review

As reported in Inspection Report 85-18, the Onsite Nuclear Safety (ONS) organization provided an outstanding presentation and assessment of the results of its HBR2 Post Trip/Safeguards Actuation Review study.

The ONS written materials distributed at the June 19, 1985 meeting were reviewed in detail by the inspectors. The hand-outs emphasized the following two specifics:

1. To provide feedback to the plant of information ONS gleaned from the plant reactor trip history; and,

2. To present the results of an ONS evaluation of the plant trip review program.

ONS expressed the objective of these two efforts to be to "Encourage plant commitment to a more dedicated and visible program for reactor trip and safeguards actuation reduction".

The ONS evaluation displayed the trip data in a variety of ways designed to characterize past performance history and to identify the trip frequencies associated with a number of contributory classes. These statistics were then compared with typical industry averages.

ONS then recommended the following:

1. Implementation of an aggressive and proactive reactor trip and safeguards actuation reduction program including:

    a. Designation of a cognizant authority
    b. Development of a work plan
    c. Monitoring and periodic evaluation of the trip data base by ONS and plant organizations

2. Improvements in Event Records Keeping to ensure:

    a. Improved continuity of plant records
    b. Centralization of background information files
    c. Increased detail of documentation

The second item, "ONS evaluation of the plant trip review program", was an ONS assessment which considered the adequacy of the associated procedures and the degree to which root causes are completely established and documented. ONS evaluated plant records for nine reactor trips which occurred between January 1, 1984 and March 31, 1985. Discussions were also held by ONS with appropriate plant personnel to obtain sharper insight into the conduct and documentation of the plant reactor trip reviews.

This ONS effort included a comprehensive and detailed review of each of the nine trips and the ONS report documented the findings in a cogent and succinct manner. The report contains a number of clearly identified observations which can be directly used to define an improvement program. In overview, ONS concluded that "Additional specifics should be added to the post-trip review documentation, including more complete documentation of programmatic followup to reflect the thoroughness with which trips are being reviewed and recurrence eliminated."

In a subsequent conversation, the Plant Manager expressed appreciation for the ONS effort and stated that a reactor trip reduction program will be implemented. The inspectors will continue to monitor these activities.

Within the areas inspected, no violations or deviations were identified.

14. Plant Procedures (42700)

The inspectors reviewed the established procedure program to ascertain whether overall plant procedures were in accordance with regulatory requirements, temporary procedures and procedure changes were made in accordance with Technical Specification (TS) requirements, and the technical adequacy of the reviewed procedures was consistent with desired actions and modes of operation. Procedures reviewed included general plant operating procedures, startup, operation and shutdown of safety-related system procedures, abnormal condition procedures, procedures for emergency and other significant events, maintenance procedures and administrative procedures.

Specifically, the following procedures were inspected in detail:

OST-158 (Revision 2) titled "Safety Injection and Containment Spray Systems Flowpath Verification Monthly Interval (At Power)"

OST-201 (Revision 11) titled "Auxiliary Feedwater System Component Test (Monthly)"

EPP-004 (Revision 0) titled "Reactor Trip Response"

SP-006 (Revision 5) titled "Security Communications"

SP-526 (Revision 1) titled "Special Procedure for Repairing a Direct Burial, 3-Conductor, 500 MCM, 480 Volt Cable with Damaged Jacket and with Damaged Insulation On At Least One Conductor"

Within the areas inspected, no violations or deviations were identified.

15. Surveillance Procedures and Records (61700)

The inspectors reviewed portions of the established licensee surveillance program. Inspection criteria included whether the surveillance of safety-related systems and components is being conducted in accordance with approved procedures as required by the Technical Specifications (TS), inservice inspection (ISI) and inservice testing (IST) programs for pumps and valves, and NRR-approved fire protection/prevention program. The inspectors also examined the technical content of selected procedures to verify that testing of related systems or components ensures compliance with the requirements specified in the TS or ISI program.

Specifically, the following procedures were reviewed:

OST-158 (Revision 2) titled "Safety Injection and Containment Spray Systems Flowpath Verification Monthly Interval (At Power)"

OST-201 (Revision 11) titled "Auxiliary Feedwater System Component Test (Monthly)"

Within the areas inspected, no violations or deviations were identified.

16. Licensee Action on Previously Identified Inspection Findings (42700, 61700, 61726, 82701)

(Closed) IFI 50-261/82-02-10: "Provide ventilation protection for EOF."

(Closed) IFI 50-261/83-31-04: "Improve accommodations for NRC team at TSC and EOF."

The above two IFI were satisfied with the commissioning of the new TSC/EOF, which incorporates the subject improvements.