



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

Report No.: 50-261/85-18

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: May 11 - June 10, 1985

Inspectors:	<u>A. K. Harden for</u>	<u>6/17/85</u>
	H. E. P. Krug, Senior Resident Inspector	Date Signed
	<u>A. K. Harden for</u>	<u>6/17/85</u>
	H. C. Whitcomb, III, Resident Inspector	Date Signed
Approved by:	<u>A. K. Harden for</u>	<u>6/17/85</u>
	P. E. Fredrickson, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, announced inspection entailed 213 resident inspector-hours on site in the areas of Technical Specification (TS) 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.

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## REPORT DETAILS

### 1. Licensee Employees Contacted

- R. Barnett, Maintenance Supervisor, Electrical
- \*G. Beatty, Manager, Robinson Nuclear Project Department
- C. Crawford, Manager, Maintenance
- J. Curley, Manager, Technical Support
- B. Flanagan, Engineering Supervisor - Nuclear
- \*W. Gainey, Mechanical Maintenance Supervisor
- F. Lowery, Manager, Operations
- R. Morgan, Plant General Manager
- \*D. Nelson, Operations Supervisor
- \*B. Rieck, Manager, Control and Administration
- D. Stadler, Director, Regulatory Compliance
- \*J. Sturdavant, Technician, Regulatory Compliance
- A. Wallace, Director, Onsite Nuclear Safety
- \*L. Williams, Security Supervisor
- C. Wright, Senior Specialist, Regulatory Compliance
- \*H. Young, Director, QA/QC

Other licensee employees contacted included 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 June 7, 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)

(Closed) Violation 50-261/85-08-01: "Inadequate Surveillance of Safety-Related Station Batteries." Corrective actions identified in licensee responses of April 3 and May 2, 1985, were verified by the Resident Inspector.

### 4. Plant Tour (62703, 71707, 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 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. Emergency Diesel Generators
- b. Vital Station Batteries
- c. Safety Injection System
- d. Component Cooling Water System
- e. Reactor Control Rod Motor Generator Sets

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

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

During this reporting interval, the inspectors verified compliance with selected limiting conditions for operation (LCOs) and reviewed results of selected surveillance tests. 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 (61711, 62703, 71707, 71714, 93702)

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.

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.

On May 14, 1985, a member of the Region II Staff and the H. B. Robinson Resident Inspectors met with licensee representatives at the site to hear a presentation on the Security System Upgrade Project. The objectives of the system upgrade and the organizational aspects of the Implementation Task Force were discussed.

The construction schedule and integration plan were discussed. The licensee forecasted the next scheduled refueling outage in February 1986 for completion of the project but have targeted the majority of the security modification package to be accomplished prior to the outage.

The method of changing the security plan in accordance with the provisions of 10 CFR 50.54(p) was discussed. The licensee indicated that although the total modification was an upgrade to the current plan, they will ensure that security is not degraded during the system modification and that compensatory measures will be established to cover unique situations which may be encountered during change over to the new system. The licensee is preparing changes to the security plan and will present these at a later meeting.

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

8. IE Bulletin, Licensee Event Report (LER) and Followup (92700, 92703)

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. Corrective action and appropriate licensee review of the events listed below was verified. When licensee identified violations were noted, they were reviewed in accordance with the enforcement policy. The inspectors had no further comments.

LER	EVENT
83-004 (Rev. 1)	Backleakage through auxiliary feedpump discharge check valve.
85-005 (Rev. 1)	Reactor trip on a steam generator high level.
85-007	Setpoint tolerance associated with the 480 VAC undervoltage relays on E1 and E2 buses.
85-008	Loss of MCC-5.
85-011	Reactor trip - steam line delta P SI/Trip due to ground on instrument bus.
85-012	Halon protection for emergency buses.

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

9. Monthly Surveillance Observation (61700, 61726)

The inspectors witnessed the execution of the weekly operability test of the emergency diesels, as it was performed on the A emergency diesel generator. This test was conducted using Operations Surveillance Test Procedure OST-401 (Revision 4) titled "Emergency Diesels - Weekly." The test director used the correct and current procedure and was qualified to perform the test.

OST-401 is designed to verify the mechanical performance and operational readiness of the emergency diesels; and that the requirements of TS 4.6.1.1 and 4.6.1.4 are satisfied. TS 4.6.1.1 states:

"Manually-initiated start of the diesel generator, followed by manual synchronization with other power sources and assumption of load by the diesel generator up to the nameplate rating. This test will be conducted monthly on each diesel generator. Normal plant operation will not be affected."

whereas TS 4.6.1.4 states:

"Diesel generator electric loads shall not be increased beyond the long term rating of 2500 kw."

The inspectors observed that the proper administrative approvals were obtained and that the required precautions were observed. The inspectors noted that although the TS require that this test be performed on a monthly basis, the licensee performs the test weekly in accordance with vendor recommendations. As part of the test, the operator verified the operation of the redundant solenoid valves on the air start system by isolating one of the solenoid valves on the A diesel prior to the engine start. The A diesel generator successfully completed the test requirements.

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

10. Monthly Maintenance Observation (62703)

The inspectors witnessed the execution of Maintenance Surveillance Test Procedure MST-902 (Revision 5) titled "Battery Test - Daily." MST-902 is performed to satisfy the requirements of TS 4.6.3.1 and 4.6.3.3 and to provide a measure of battery operability. TS 4.6.3.1 states:

"The voltage and temperature of a pilot cell in each battery shall be measured and recorded daily, five days/week."

whereas TS 4.6.3.3 states:

"At each time data is recorded, new data shall be compared with old to detect signs of abuse or deterioration."

The inspectors observed that the proper administrative approvals were obtained and that the required precautions were observed. The maintenance technician used the correct and current procedure and was qualified to perform the test. Cell voltage electrolyte temperature, electrolyte level, and specific gravity of the electrolyte were all properly measured in accordance with MST-902. The electrolyte specific gravity was then corrected for both temperature and level. The inspectors observed that the battery parameters satisfied the acceptance criteria for level, temperature, condition and specific gravity as promulgated in Revision 5 to MST-902.

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

11. Licensee Action On Previous Identified Inspection Findings (42700, 61700, 61726, 92701)

(Closed) IFI 50-261/85-14-01: "Vital Station Batteries." The inspection of the vital station batteries which was begun during the previous reporting period (50-261/85-14) was completed during this reporting period.

The inspectors observed that the battery support structure and the installation of the individual cells is in accordance with the vendors guidance. The licensee does not use a low voltage limit for individual cells during the five year load test; however, the load test is performed using the station actual load profile, which is simulated using a computer controlled variable resistor bank. Thus, if a cell polarity reversal occurs, it will not result in a bank test failure, unless the bank voltage drops below the bank low voltage limit. In a conversation with the vendor, the inspectors determined that this practice is not contrary to the vendors guidance; furthermore, the licensee definitively establishes whether or not the batteries can provide the required load profile. While a polarity reversal of an individual cell could result in lost capacity associated with that cell, the licensee procedures and practices are designed to detect and correct such an eventuality.

The licensee has written a number of procedures covering the areas of vital battery operations, maintenance and testing, specifically:

- MST-902 (Revision 5) "Battery Test Daily"
- MST-903 (Revision 5) "Station Battery Charge-Monthly"
- EST-12 (Revision 1) "Station Battery Load Test-Periodic Test"
- CM-302 (Revision 2) "Charging (Individual or Group Cells) of the Station Batteries"
- PM-410 (Revision 1) "Inspection of Battery Banks and Cell Connections"
- PM-411 (Revision 1) "Disassembly, Cleaning, Assembly, and Testing of Battery Cell Connections"

The inspectors reviewed these procedures emphasizing completeness, technical accuracy and satisfaction of the technical specifications.

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