UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-8931

October 20, 2000

Carolina Power & Light Company
ATTN: Mr. Dale E. Young
Vice President
H.B. Robinson Steam Electric Plant
Unit 2
3851 West Entrance Road
Hartsville, SC 29550

SUBJECT: ROBINSON - NRC INTEGRATED INSPECTION REPORT 50-261/00-04

Dear Mr.Young:

On September 30, 2000, the Nuclear Regulatory Commission (NRC) completed an inspection at your Robinson facility. The enclosed report presents the results of that inspection which were discussed with Mr. Moyer and other members of your staff on October 11, 2000.

The inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.
No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Public Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian Bonser, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Docket No.: 50-261
License No.: NPF-23
Enclosure: Inspection Report

cc w\encl: (See page 2)

cc w/encl:
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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-261
License No:	NPF-23
Report No:	50-261/00-04
Licensee:	Carolina Power & Light (CP&L)
Facility:	H. B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	July 2 - September 30, 2000
Inspectors:	B. Desai, Senior Resident Inspector A. Hutto, Resident Inspector B. Crowley, Senior Reactor Inspector (1R12) D. Thompson, Safeguards Inspector (3PP3, 4OA2)
Approved by:	B. Bonser, Chief Reactor Projects Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

H. B. Robinson Steam Electric Plant, Unit 2
NRC Inspection Report 50-261/00-04

IR 05000261-00-04, on 07/02 - 09/30/2000, Carolina Power & Light, H. B. Robinson Steam Electric Plant, Unit 2. Resident integrated inspection report.

The report covers a 13-week period of resident inspection and announced inspections by a regional reactor inspector and regional and headquarters safeguards inspectors and contractors. No findings of significance were identified. The significance of issues is indicated by their color (green, white, yellow, red) as determined by the Significance Determination Process in Inspection Manual Chapter 0609 (See Attachment).

Report Details

Summary of Plant Status

The plant operated at 100 percent power from July 2 through September 16. On September 17, power was reduced to 65 percent for turbine valve testing. The unit returned to full power operations the same day and continued at 100 percent power through the remainder of the inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment

a. Inspection Scope

The inspectors reviewed plant documents and performed partial system walkdowns to verify proper equipment alignment and to identify any discrepancies that could impact the safety function of the system. Partial system walkdowns included:

- Auxiliary Feedwater (AFW) A and B motor driven pumps/trains
- Safety Injection Pump (SI) Train C
- A Train Control Room Ventilation

b. Issues and Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Following a review of the Updated Final Safety Analysis Report (UFSAR), the inspectors conducted a tour of the following areas in the plant to determine licensee control of transient combustibles and ignition sources, material condition, fire detection and suppression system condition, and fire barrier condition.

- Component Cooling Water (CCW) Room
- AFW Pump Room
- Pipe Penetration Alley
- Residual Heat Removal (RHR) Pump Pit

b. Issues and Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

The inspectors inspected the condition of buried manholes M-35 and M-36 following a one week period of heavy rains produced by two tropical storm systems. These manholes contained safety related cables for the service water (SW) pumps and associated motor operated valves that are located at the intake structure. The inspectors verified that the sump pumps were operating and maintaining water levels below the electrical cables, and verified that level alarms were operable. The inspectors also observed the SW cable condition for any evidence of degradation as a result of water exposure.

b. Issues and Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed licensed operator requalification training activities which included classroom presentations. The training activity involved use of end path emergency procedure EPP-12, “Post SGTR Cooldown Using Backfill.” The inspectors’ focus during the observation was functionality of the procedure, emphasis by the instructor on the important tasks required by the procedure, and discussion of the basis for using the procedure, including the entry point following the accident.

b. Issues and Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

.1 Maintenance Effectiveness

a. Inspection Scope

The inspectors assessed the effectiveness of the licensee’s maintenance efforts by evaluating several conditions that occurred during the inspection period. The inspection determined the risk significance of the condition, licensee implementation of the maintenance rule (10 CFR 50.65), and licensee utilization of the corrective action program. The specific conditions evaluated by the inspectors included:

- Deepwell Pump B Leaking Flange
- Motor Driven Fire Pump Replacement
- Motor Driven AFW Pump A flow control valve (FCV) 1424 Failed Stroke Time
- Charging Pump A Power Frame Maintenance
- Primary and D Instrument Air Compressor Failures

b. Issues and Findings

No findings of significance were identified.

.2 Periodic Evaluation

a. Inspection Scope

The inspectors reviewed the licensee's second Maintenance Rule periodic assessment, "Maintenance Rule (a)(3) Periodic Assessment," dated August 27, 1999. The report was issued to satisfy paragraph (a)(3) of 10 CFR 50.65, and covered the period December 1, 1997 to May 31, 1999. The inspectors verified that the assessment was issued in accordance with the time restraints of the Maintenance Rule, and included evaluation of: balancing reliability and unavailability, (a)(1) activities, (a)(2) activities, and use of industry operating experience. To verify compliance with 10 CFR 50.65, the inspectors reviewed selected Maintenance Rule activities covered by the assessment period from the following risk significant systems: CCW, Emergency Diesel Generators (EDG), SW, AFW, and Chemical Volume and Control System (CVCS). The inspection included review of the following documents:

- Assessment Number 99-53, "Maintenance Rule (a)(3) Periodic Assessment," dated 12/27/99, assessment period 12/1/97 - 5/31/99

- Follow-up Assessment Report Number 17794(99-53FU), "Maintenance Rule (a)(3) Periodic Assessment," dated 3/22/00

- Procedure ADM-NCGC-0101, Revision 11, "Maintenance Rule Program"

- Condition Reports (CRs) associated with the above assessments, including a sample of completed corrective actions

CR-99-01653	CR-99-01320
CR-99-01654	CR-99-01652
CR 18060	CR 18064

- The Following Maintenance Rule Reports For CCW, CVCS, EDG, & SW Systems (Assessment Period 12/1/97 - 5/31/99)

  Maintenance Rule Functional Failures
  Maintenance Rule Summary
  Maintenance Rule (a)(1) Systems
  Next Failure Causes Functional Failure Exceedance

- The Following Maintenance Rule Reports For CCW, CVCS, & EDG systems (Assessment Period - 9/1/99 - 7/17/00)

  Maintenance Rule Functional Failures
  Maintenance Rule Summary
  Maintenance Rule (a)(1) Systems
  Next Failure Causes Functional Failure Exceedance

- Work Request History Reports

  SW & CCW Systems - 12/1/97 - 5/31/99
  AFW system - 7/98 - 7/00

- Industry Operating Experience Evaluations

  99-01727
  99-02291
  18118
  98-02461

In addition to review of the above documents, the inspectors attended an Expert Panel Meeting on July 19, 2000.

b. Issues and Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed licensee risk assessments for removal of the following components from service. The inspectors verified that the licensee appropriately evaluated plant risk in accordance with Operations Management Manual OMM-048, "Work Coordination and Safety Assessment," Revision 8, during the scheduling of emergent work items. The inspectors reviewed the effectiveness of licensee actions to plan and control scheduled work to minimize overall plant risk while the emergent work items were being addressed. Specifically, the inspectors reviewed the applicable plant risk profiles, work week schedules and maintenance work requests associated with the out of service equipment. Additionally, the inspectors held discussions with the work week managers and probability safety assessment (PSA) engineer as part of the risk assessment review.

- Charging Pump C with the B EDG out of service (OOS)
- Motor Driven Fire Pump/B CCW Pump OOS
- A Train MDAFW (FCV-1424) OOS
- B EDG Standby Jacket Water Pump Seal Leak
- D Instrument Air Compressor with Pressurizer Power Operated Relief Valve (PORV) OOS

b. Issues and Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. Inspection Scope

The inspectors reviewed operator performance, operator logs, plant computer data, and control room instrumentation and annunciator panels for the reactor power reduction to 65 percent for turbine valve testing.

b. Issues and Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors evaluated the technical adequacy of the following Engineering Service Request (ESR), and CR evaluation affecting mitigating systems and barrier integrity, to ensure that operability was properly justified and the component or system remained available, such that no unrecognized increase in risk occurred.

- CR 22569, “SI-870B Torque Switch Settings Found Outside Range”
- ESR 00-00158, “EDG B Fuel Oil Transfer Pump Replacement”

b. Issues and Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors performed a review of existing operator workarounds to determine any change from the previous inspection period. The inspectors had assessed the impact of existing operator workarounds during the inspection period ending July 1, 2000. There were no additional operator workarounds during this inspection period. Additionally, the inspectors periodically reviewed CRs and held discussions with operators to determine if any conditions existed that should have been identified by the licensee as operator workarounds and that the threshold for identification was commensurate with plant risk.

b. Issues and Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors witnessed the following post maintenance test (PMT) activities and/or reviewed the test data to verify that the systems or components met the design/licensing basis requirements and commitments, and demonstrated that the systems or components were capable of performing their intended safety functions.

- Stroke time of SI-866B, OST-703, " ISI Primary Side Valve Test," Revision 52 (breaker maintenance)
- OP-202, "Safety Injection and Containment Spray System," Revision 54 , Section 8.1.2, "Vent SI Pump A" (SI pump maintenance)
- OST-252-1, "RHR Component Test Train A (Quarterly)," Revision 7, (CC-749A maintenance)
- OP-306, "Component Cooling Water ," Revision 6, (CCW pump C breaker PMT)
- OST-701-5, "Reactor Coolant System Inservice Inspection Valve Test," Revision 6, (clean/inspect breaker for PORV Block Valve RC-535)
- OST-101-1, "CVCS Component Test Charging Pump A (Quarterly)," Revision 27 (Charging Pump A power frame maintenance)

b. Issues and Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed the following surveillance tests and/or reviewed test data to verify the selected structures, systems and components (SSCs) met the Technical Specifications (TS), UFSAR, and licensee procedure requirements; and demonstrated that the SSCs were capable of performing their intended safety functions.

- OST-151-3, "Safety Injection System Components Test - Pump C (Quarterly)," Revision 15
- OST-352-1, "Containment Spray Component Test - Train A (Quarterly)," Revision 15
- OST-401-2, "EDG B Slow Speed Start," Revision 13
- OST-108-1, "Boric Acid Pump A Inservice Inspection (Quarterly)," Revision 11

- OST-251-1, “RHR Pump A and Component Test (Quarterly),” Revision 13
- OST-908, “Component Cooling System Component Test (Quarterly),” Revision 47

b. Issues and Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed existing temporary modifications to determined their impact on safety functions. The following ESRs involving temporary modifications to risk significant systems were reviewed, including the associated 10 CFR 50.59 screening against the system design basis, UFSAR and TS. The review verified that configuration control of the modification was adequate by verifying that any affected plant documents, such as drawings and procedures were properly controlled.

- ESR 00-00117, “Temporary Modification for Injecting Chilled Water to HVH - 1,2,3,4"
- ESR 00-00104, “Leak Repair of Service Water Line 3-CW-50A”

b. Issues and Findings

No findings of significance were identified.

3. SAFEGUARDS
Cornerstone: Physical Protection

3PP3 Response to Contingency Events

a. Inspection Scope

The inspectors reviewed the licensee’s current protective strategy including the target set analysis and response force procedures. The protected area intrusion detection system was evaluated to determine if vulnerabilities could be identified. Identified potential vulnerabilities were tested by two NRC contractors to determine if they were exploitable. The inspectors toured the vital areas, the defensive positions, and evaluated the training of the central and secondary alarm station operators. The inspectors with the assistance of two NRC contractors conducted four table top exercises with security supervisors and selected five individuals to demonstrate tactical firing at the range with handguns and contingency weapons. The quality of the assessment aids was evaluated to determine if the alarm station operators could clearly recognize a threat in the intrusion detection zones.

b. Issues and Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

40A1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors verified the accuracy of PI data for reactor coolant system specific activity for the period of July 2000 through August 2000. This was accomplished through discussions with the licensee, review of licensee chemistry logs, observation of a reactor coolant sample in accordance with licensee procedures, and a review of operator logs for the quarter.

b. Issues and Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors randomly selected and screened licensee records for the period of July 1999 through July 2000 relating to security logable events, maintenance work requests, and condition reports to determine if the licensee was identifying problems related to these areas, and entering them into the corrective action program.

b. Issues and Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. Moyer and other members of licensee management on October 11, 2000. The licensee acknowledged the findings presented during these exit meetings.

The inspectors asked the licensee whether any of the material examined during the inspections should be considered proprietary. No proprietary information was identified.

.2 Revised Oversight Process Public Meeting Summary

On August 2, 2000, the NRC held a public meeting at the Hartsville City Hall to discuss the new reactor oversight process which began at the Robinson plant in April. During the meeting NRC representatives presented highlights of the new process and provided an opportunity for members of the public to ask questions.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Cleary, Operations Manager
C. Martin, Site Support Services Manager
S. Collins, Radiation Protection Superintendent
D. Stoddard, Robinson Engineering Support Services Manager
J. Fletcher, Maintenance Manager
J. Moyer, Director of Site Operations
R. Steele, Outage Management Manager
T. Walt, Plant General Manager
R. Warden, Regulatory Affairs Manager
A. Williams, Training Manager
D. Young, Vice President, Robinson Nuclear Plant

NRC

B. Desai, Senior Resident Inspector
A. Hutto, Resident Inspector
B. Crowley, Senior Reactor Inspector
D. Thompson, Safeguards Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Previous Items Closed

None.

Previous Items Discussed

None

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

Attachment