



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

March 30, 2000

Carolina Power & Light Company  
ATTN: Mr. Dale E. Young  
Vice President  
H. B. Robinson Steam Electric Plant  
Unit 2  
3581 West Entrance Road  
Hartsville, SC 29550

SUBJECT: NRC INTEGRATED INSPECTION REPORT NO. 50-261/00-01

Dear Mr. Young:

This refers to the inspection conducted on January 30, 2000, through March 4, 2000, at the Robinson facility. The enclosed report presents the results of this inspection.

During the five weeks covered by this inspection period, our inspectors found that your staff generally took a safety conscious approach to the activities conducted at the Robinson plant.

Within the scope of the inspection, no violations or deviations 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 placed in the NRC Public Document Room.

Sincerely,

*/RA/*

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

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

Enclosure: (See page 2)

Enclosure: NRC Integrated Inspection Report

cc w/encl:

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Enclosure

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

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

Report No: 50-261/00-01

Licensee: Carolina Power & Light (CP&L)

Facility: H. B. Robinson Unit 2

Location: 3581 West Entrance Road  
Hartsville, SC 29550

Dates: January 30 - March 4, 2000

Inspectors: B. Desai, Senior Resident Inspector  
A. Hutto, Resident Inspector

Approved by: Brian R. Bonser, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Enclosure

## EXECUTIVE SUMMARY

H. B. Robinson Steam Electric Plant, Unit 2  
NRC Inspection Report 50-261/00-01

This integrated inspection included aspects of licensee operations, maintenance, engineering, and plant support. The report covers a five-week period of resident inspection.

### Operations

- A walkdown of the spent fuel pool cooling system concluded that the system was appropriately configured and maintained (Section O2.1).

### Maintenance

- Maintenance activities were conducted in accordance with applicable work documents and procedures. Personnel were properly trained and knowledgeable of their assignments (Section M1.1).
- There were no problems identified during observed surveillances. Completed surveillance test packages demonstrated acceptable test results (Section M2.1).

### Engineering

- A review of the diesel fuel oil testing program concluded that the program was in compliance with Technical Specification (TS) requirements. The licensee identified program improvements to assure that new fuel received met the quality specifications stated in TS (Section E1.2).

### Plant Support

- Radiological controls and security were properly conducted. Areas observed in the radiological control area were appropriately posted and secured (Section R1.1).
- A review of the post accident sampling system program concluded that it complied with the TS requirements (Section R1.2).

## Report Details

### Summary of Plant Status

Robinson Unit 2 operated at or near 100 percent power throughout the inspection period.

### I. Operations

#### **O1 Conduct of Operations**

##### **O1.1 General Comments (71707)**

The inspectors conducted frequent control room tours to verify proper staffing, operator attentiveness and communications, and adherence to approved procedures. The inspectors routinely attended operations turnover meetings, management review meetings, and plan-of-the-day meetings to maintain awareness of overall plant operations. Operator logs, Condition Reports (CR), and instrumentation were routinely reviewed. Plant tours were conducted to verify operational safety and compliance with Technical Specifications (TS), as well as to assess plant housekeeping. In general, the inspectors concluded that the conduct of operations was risk informed, professional, and safety-conscious.

#### **O2 Operational Status of Facilities and Equipment**

##### **O2.1 Safety System Walkdown (71707)**

The inspectors conducted a walkdown of the spent fuel pool cooling (SFPC) system to assess the general condition of system components, including labeling, to verify that system configuration matched the system drawings and station operating procedures, and to assess plant housekeeping and radiation controls. The material condition of the SFPC system was found to be good and no housekeeping or radiation control deficiencies were noted. The inspectors found the system to be appropriately configured and capable to perform its spent fuel cooling function. The inspectors also reviewed the applicable sections of the Updated Final Safety Analysis Report (UFSAR) and TS, and identified no discrepancies. A review of the Maintenance Rule database was also performed and the inspectors found that the appropriate performance criteria data were being collected and trended.

##### **O2.2 Clearance Walkdown (71707, 62707)**

The inspectors verified proper implementation of clearance 99-02131 during a walkdown on February 29, 2000. The clearance was to isolate the "A" auxiliary feedwater pump to allow scheduled maintenance. The inspectors verified that valves, electrical breakers, and control switches were aligned appropriately to provide an adequate boundary for the scheduled maintenance activity. No discrepancies were identified during inspection of the clearance. The inspectors verified that the clearance was implemented in accordance with plant procedures.

## II. Maintenance

### **M1 Conduct of Maintenance**

#### M1.1 Observation of Maintenance Activities (62707)

The inspectors observed all or portions of the following Work Request/Job Orders (WR/JOs):

- WR/JO 99-AGXX1, Perform Diagnostic Testing of AFW Pump "A" TCV-1903A IAW SP-1445
- WR/JO 99-ACGA2, Perform PM-176 Valve Vision Testing for AFW-V2-14B
- WR/JO AKBT, Perform EST-002 NIS Power Range Axial Offset
- WR/JO AAIP 001, Perform "C" Charging Pump Power Frame Inspection

The inspectors found that the maintenance observed was properly approved and was included in the plan of the day. The inspectors also found that the work was performed thoroughly, and with the work package present and in use. Accompanying documents such as procedures and supplemental work instructions were properly followed. Personnel were properly trained and knowledgeable of their assignments. The inspectors noted that supervisors and system engineers monitored the jobs on a frequent basis.

### **M2 Maintenance and Material Condition of Facilities and Equipment**

#### M2.1 Surveillance Testing (61726)

The inspectors reviewed test package documentation and observed performance of all or portions of the following surveillance tests. There were no problems identified during observed surveillances. Completed surveillance test packages demonstrated acceptable test results.

- OST-151-3, "Safety Injection System Components Test - Pump "C" (Quarterly)," Revision 12
- OST-202, "Steam Driven Auxiliary Feedwater System Component Test," Revision 45
- OST-908, "Component Cooling System Test (Quarterly)," Revision 46
- OST-201-1, "'A" Motor Driven Auxiliary Feedwater Pump Test," Revision 12.

## III. Engineering

## **E1 Conduct of Engineering**

### **E1.1 Review of Engineering Service Requests (ESR) (37551)**

The inspectors reviewed the following completed ESR packages and determined that the necessary 10 CFR 50.59 evaluations were performed in accordance with plant procedures. There were no discrepancies identified.

- ESR 99-00056, Adjustment of “A” & “B” EDG Shutdown Mechanism
- ESR 99-00308, MOV Thermal Overload Setting Changes

### **E1.2 Diesel Fuel Oil Testing Program**

#### **a. Inspection Scope (37551, 71707)**

The inspectors reviewed the diesel fuel oil testing program specified by TS 5.5.13, Diesel Fuel Oil Testing Program, to verify that the licensee's program met the TS requirements. The TS required quantity of diesel fuel is stored on-site in the unit 2 diesel fuel oil storage tank, and in the unit 1 fuel oil storage tanks. The unit 1 storage tanks serve the fossil powered generating equipment.

#### **b. Observations and Findings**

TS 5.5.13 requires the licensee to establish a testing program using testing methods in accordance with the applicable American Society of Testing Methods (ASTM) standard to assure the acceptability of both new fuel oil and stored fuel oil used for the emergency diesel generators. The licensee's fuel oil testing program is specified in the Technical Requirements Manual (TRM) PLP-100 which lists the plant procedures that implement the program. The procedures provide instructions to test the stored fuel oil as required by TS using the appropriate test methods and test frequency. For new fuel, the bases for the diesel fuel oil testing surveillance, TS SR 3.3.2.2, gives the licensee the option to test each shipment upon delivery, or to inspect fuel tanker seal integrity, and rely on the supplier's certificate of compliance (COC) to verify new fuel quality. The licensee chose to perform the tanker seal integrity inspections. All new diesel fuel was delivered to the unit 1 storage tanks and the tanker seal inspections were performed by unit 1 operations personnel.

Since the licensee relied on the supplier's COC to verify new fuel quality, the inspectors reviewed contract documents for the purchase of diesel fuel, to determine if the TS requirements for fuel quality were stipulated to the supplier. The inspectors found that the TS quality requirements were specified in the contract. The contract was written and controlled by the corporate Fossil Fuel department. The licensee recognized that the overall diesel fuel testing program could be strengthened by having the nuclear procurement organization more involved with the purchasing and receipt of new diesel fuel and initiated a condition report, NCR 15831, to capture these enhancements. The corrective actions outlined by the NCR recommended a dedication process that tested a sample of new fuel oil deliveries, and periodic licensee inspections of the fuel supplier's



testing and quality control. Additional corrective actions included the preparation of an interface agreement that delineated responsibilities of unit 1 and unit 2 personnel for new fuel receipt activities.

c. Conclusions

A review of the diesel fuel oil testing program concluded that the program was in compliance with TS requirements. The licensee identified program improvements to assure that new fuel received met the quality specifications stated in TS.

#### **IV. Plant Support**

##### **R1 Radiological Protection and Chemistry (RP&C) Controls**

###### **R1.1 General Comments (71750)**

The inspectors periodically toured the radiological control area (RCA) during the inspection period. Radiological control practices were observed and discussed with radiological control personnel including RCA entry and exit controls, survey postings, locked high radiation area controls, and radiological area material condition. The inspectors concluded that radiation control practices were being conducted in accordance with procedures. The inspectors also toured the radwaste building and found that radwaste storage containers and laundry bags were in good condition and appropriately labeled. In addition, outside radwaste storage areas and structures were properly posted and exhibited correct labeling and effective housekeeping. The inspectors found that housekeeping throughout the plant was effective in maintaining areas free of unnecessary equipment and debris. Relatively few contaminated areas were noted, and posted locked high radiation areas were properly secured against unauthorized entry.

###### **R1.2 Review of Post Accident Sampling System (PASS) Program (71750)**

The inspectors reviewed the licensee's Post Accident Sampling Program required by Technical Specification (TS) 5.5.3. TS requires that the program include provisions for the training of personnel, procedures for sampling and analysis, and maintenance of sampling and analysis equipment. The inspectors reviewed training records, training procedures, sampling and analysis procedures, and PASS preventive maintenance procedures and concluded that the licensee's program complies with the TS requirements. The inspectors also attended the system review meeting conducted by the system engineer, where several calibration problems with the boron meter and pH meter were discussed. A recommendation will be made to the Maintenance Rule expert panel to place the in-line instrumentation portion of the PASS in (a)(1) status as a result of the instrument failures.

#### **V. Management Meetings**

**X1 Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on March 10, 2000. The licensee acknowledged the findings presented at the exit meeting. Dissenting comments were not received from the licensee. The licensee did not identify any materials used during the inspection as proprietary information.

**PARTIAL LIST OF PERSONS CONTACTED****Licensee**

T. Cleary, Operations Manager  
J. Clements, 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

**INSPECTION PROCEDURES USED**

IP 37551: Onsite Engineering  
IP 61726: Surveillance Observations  
IP 62707: Maintenance Observation  
IP 71707: Plant Operations  
IP 71750: Plant Support Activities.

**ITEMS OPENED, CLOSED, AND DISCUSSED**

**Opened**

None

**Closed**

None