



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

Report No.: 50-261/85-36

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

Inspection Conducted: December 11, 1985 - January 10, 1986

Inspector: *J. S. Mellen* 2/4/86
for HC E. P. Krug, Senior Resident Inspector Date Signed

Approved by: *J. S. Mellen* 2/4/86
for P. E. Fredrickson, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Scope: This routine, announced inspection involved 111 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 Notice followup, organization and administration, independent inspection, and Systematic Assessment of Licensee Performance (SALP).

Results: No violations or deviations were identified in the areas inspected.

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REPORT DETAILS

1. Licensee Employees Contacted

R. Barnett, Maintenance Supervisor, Electrical
G. Beatty, Manager, Robinson Nuclear Project Department
A. Beckman, Principal Specialist, Planning and Scheduling
J. Benjamin, Principal Engineer, Operations
R. Chambers, Engineering Supervisor, Performance
C. Crawford, Manager, Maintenance
D. Crocker, Principal Health Physics Specialist
J. Curley, Director, Regulatory Compliance
D. Erickson, Radiation Control Supervisor
J. Eaddy, E&C Supervisor
W. Flanagan, Manager, Design Engineering
W. Gainey, Maintenance Supervisor, Mechanical
G. Honma, Senior Specialist, Regulatory Compliance
F. Lowery, Manager, Operations
A. McCauley, Director (Acting), Onsite Nuclear Safety
P. Harding, Project Specialist (Acting), Radiation Control
M. Marquick, Senior Specialist, Planning and Scheduling
R. Morgan, Plant General Manager
M. Morrow, Specialist, Emergency Preparedness
B. Murphy, Senior Instrumentation and Control Engineer
D. Nelson, Operating Supervisor
M. Page, Engineering Supervisor, Plant Systems
R. Powell, Principal Specialist, Maintenance
B. Rieck, Manager, Control and Administration
R. Smith, Manager, Environmental and Radiation Control
J. Sturdavant, Technician, Regulatory Compliance
R. Wallace, Manager, Technical Support
L. Williams, Supervisor, Security
C. Wright, Senior Specialist, Quality Assurance
H. Young, Director, QA/QC

Other NRC Contributors:

Roger D. Walker - Director, Division of Reactor Projects
Paul E. Fredrickson - Chief, Reactor Projects Section 1C

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

2. Management Meetings and Exit Interview (30702,30703)

The inspection scope and findings were summarized on January 10, 1986, with the Plant General Manager and the Director of Regulatory Compliance. No written material was provided to the licensee by the inspector. The licensee acknowledged the findings without exception. The licensee did not

identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

On December 20, 1985, Paul E. Fredrickson, NRC Region II Section Chief, Division of Reactor Projects (DRP), was in the area in order to conduct a routine meeting with local officials. He also met with senior site management and addressed a regularly scheduled management coordination meeting.

On January 3, 1986, Roger D. Walker, Director, DRP, accompanied by Paul E. Fredrickson visited the site to meet with senior site management and to become more familiar with site personnel and plant physical features.

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

3. Plant Tour (71707, 62703, 71710)

The inspector 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 inspector 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 inspector 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 and contamination control were observed to be satisfactory.

The inspector observed a leak creating a puddle of water near the "B" waste evaporator control panel. The inspector also noticed that the emergency stop button on the "B" emergency diesel generator was inadvertently painted green. After identifying these items to the licensee staff, corrective action was complete within 24 hours.

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

- a. Radiation Monitors
- b. Electrical Switchgear
- c. Emergency Diesel Generators
- d. Station Vital Batteries
- e. Safety Injection System

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

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

During this reporting interval, the inspector verified compliance with selected limiting conditions for operation and reviewed results of certain 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, and interviews with cognizant personnel.

The licensee updated the inspector on progress achieved on the licensee's phased implementation of the Radiological Environmental Technical Specifications (RETS) for the Robinson station. Included was a description of ongoing coordination with NRR on the RETS as well as the status of minor corrections being implemented by the licensee.

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

5. Plant Operations Review (71707, 62703, 61726, 61707, 61711)

Periodically during the inspection interval, the inspector 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, night orders, jumper logs, and equipment tagout records. The inspector routinely observed operator alertness and demeanor during plant tours. The inspector conducted random off-hours inspections during the reporting interval to assure that operations and security remained at an acceptable level. The inspector also observed ten instances of shift turnover and relief.

The inspector periodically verified the reactor shutdown margin. The inspector also periodically observed the reactor axial flux difference and compared the observed values with those required by the TS.

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

6. Physical Protection (71707)

The inspector verified by observation, perimeter walkdowns and interviews 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 were proper, that search practices were appropriate, and that escorting and communications procedures were followed.

During the inspection period, the inspector continued to monitor the progress and activities of the Security Task Force with respect to the HBR Security System Upgrade Project. Modifications schedules and the establishment of required action to accomplish the scheduled deadlines were discussed with the licensee. Installation of the new card readers continued

on schedule. No problems associated with the interim, simultaneous use of two card reader systems were observed by the inspector. The inspector reviewed portions of Revision II of the Site Security Manual.

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

7. Monthly Surveillance Observation and Procedure Review (61726) (61700)

The inspector observed surveillance activities to ascertain that these activities associated with the plants permanently installed radiological instrumentation were conducted in accordance with license requirements. The procedure used to control the surveillance was "Operations Surveillance Test - Radiation Monitoring System (Daily) OST-905 - Revision 4, effective November 7, 1984; which was the current revision. The inspector determined that the surveillance test procedure conformed to TS requirements, that Limiting Conditions for Operations (LCOs) were met and that the surveillance test was completed at the required frequency. The inspector also verified that the required administrative approvals and precautions were obtained prior to initiating the test, that the testing was accomplished by qualified personnel in accordance with the approved test procedure and that the required test instrumentation was properly calibrated. Upon completion of the testing, the inspector 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.

8. Monthly Maintenance Observation (62703)

The inspector observed the installation of a solid state trip unit into the DB-50 type switchgear used for the "B" charging pump. Essentially, the modification changes the tripping system on a DB breaker from an electro-mechanical tripping system, which passes very high currents, to a solid state tripping system which is very accurate and uses low amperage by virtue of the use of step-down transformers. In order to reduce personnel error associated with performing the test and calibration activities associated with the conversion, the licensee utilized a special test plug which it employed in conjunction with a Multi-Amp FM-2 timer/meter with digital displays. These activities were conducted in accordance with approved procedures, TS and appropriate industry codes and standards. The inspector determined that these activities were not violating LCOs and that the two redundant charging pumps were operable. The inspector also determined (1) that the procedures used were adequate to control the activity, (2) that required administrative approvals and tagouts were obtained prior to work initiation, (3) that proper radiological, and appropriate ignition and fire prevention controls were implemented, and (4) that replacement parts and materials used were properly certified. The inspector verified that these activities were accomplished by qualified personnel using the latest versions of approved procedures. The inspector verified that the breaker was properly tested following the completion of the work. The work was performed in the E1/E2 electrical panel room adjacent to the vital battery

room. Three mechanics performed the work on the breaker which was mounted on a special pedestal for accessibility. The Senior Instrumentation and Control Engineer responsible for writing the procedures observed the activities in addition to the inspector. The procedures used to control the work are discussed in paragraph 13.

Housekeeping was maintained throughout the work.

Additionally, the inspector reviewed several outstanding job orders to verify that the licensee was giving priority to safety-related maintenance and to ensure that a backlog which might affect its performance was not developing on a given system.

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

9. Cold Weather Preparations (71714)

The licensee's cold weather activities are covered by OMM-021 titled "Operation During Adverse Weather Conditions," Revision "0" dated August 15, 1985. In addition to Cold Weather Operations, OMM-021 covers Tornados and Hurricanes. As part of the inspection, the inspector discovered that the licensee is in the process of splitting out Cold Weather Operations as part of its ongoing procedure improvement activities. However, for the present, the licensee's Cold Weather Operations are listed in Section 5.1 of OMM-021 which identifies activities which must be performed as a function of outside air temperature. Section 5.1.3 of OMM-021 refers to Attachment 9.2 of OP-603 for a "Cold Weather Operation Electrical Lineup" which is required to be executed by OMM-021 when the outside air temperature is equal to or less than 32 degree F.

The inspector observed indications and activities associated with the provisions of OMM-021; in particular, the electrolyte temperature of the vital station batteries was repeatedly observed to be within the low seventies--close to optimum battery temperature. The inspector will continue to monitor the licensee's Cold Weather Operations and associated procedure improvements.

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

10. Information Meeting with Local Officials (94600)

Mr. Fredrickson, NRC Section Chief, and the inspector met with the Mayor and the City Manager of Hartsville, S.C. Mr. Fredrickson introduced the Senior Resident Inspector and familiarized the officials with the mission of the NRC. In addition, the status of the Robinson facility was discussed. Mr. Fredrickson reviewed the lines of communication between the local officials and the NRC and encouraged the officials to contact the NRC at any time with any subsequent questions.

Also on December 20, 1985, Mr. Fredrickson and the inspector met with the County Administrator and the Director-Emergency Preparedness Agency, both for Darlington County. The County officials described the salient features of certain displays, visual aids and equipment that are in a state of constant readiness within the Darlington County Emergency Preparedness Building. Mr. Fredrickson introduced the Senior Resident Inspector and repeated the presentation made earlier to the City of Hartsville officials.

11. Organization and Administration (36700)

The inspector reviewed certain features of the on-site licensee organization to ascertain whether changes made to the licensee's onsite organization are in conformance with the requirements of the TS by verifying that (1) the established organization is functioning as described in the TS, (2) personnel qualification levels are in conformance with applicable codes and standards, and (3) the lines of authority and responsibility are in conformance with TS and applicable codes and standards. The inspector also reviewed appropriate licensee records to ascertain whether the licensee's use of overtime is in conformance with regulatory requirements and that any deviations from maximum overtime limits were authorized in accordance with TS and/or plant administrative procedures.

Comprehensive discussions concerning current safety-related activities were conducted with plant management and technical personnel during this reporting period including, and in particular, Technical Support, Environmental and Radiation Controls, Regulatory Compliance and Onsite Nuclear Safety organizations. Topics discussed in detail included licensee activities associated with plant operations activities; outage plans, plant modifications, including the security system upgrade; temporary modifications to the safety injection system; ongoing construction activities; and communications interfaces. The inspector attended the preoutage meeting held on January 9, 1986. Planning activities appear to have improved from previous outages.

The licensee also informed the inspector of responsibility realignments within the Regulatory Compliance Unit. Work responsibilities were realigned by functional areas (e.g., Maintenance, Emergency Planning, etc.) to provide one principal contact for all regulatory issues regardless of the identity of the regulatory agency.

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

12. Onsite Review Committee (ONS) (40700)

The inspector reviewed certain activities of the plant nuclear safety committee (PNSC) to ascertain whether the onsite review functions were conducted in accordance with TS and other regulatory requirements. The inspector attended a special PNSC meeting held on January 7, 1986, observed the conduct of the meeting and ascertained that provisions of the TS dealing with membership, review process, frequency, qualifications, etc., were satisfied.

The licensee convened this special PNSC meeting to discuss the applicability of IE Information Notice (IEN) No. 85-94 titled "Potential for Loss of Minimum Flow Paths Leading to ECCS Pump Damage During a LOCA." As part of its normal review of IEN 85-94 ONS requested the meeting at which the Director of Regulatory Compliance, assisted by ONS, explained the problem to the PNSC. After a technical discussion the PNSC decided, as an interim measure, to mechanically block open the normally open SI valves which permit the recirculation flow to return to the RWST. This interim fix is similar to that performed at Point Beach, as described in IEN 85-94. The inspector will continue to monitor this activity.

The licensee reported this "event" pursuant to 10CFR50.72(b)2(iii)(B), a condition that could, alone, have prevented the removal of residual heat.

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

13. Plant Procedures (42700, 61700)

The inspector reviewed portions of 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 TS requirements, and the technical adequacy of the reviewed procedures were consistent with desired actions and modes of operation. Procedures examined included procedures for emergencies, maintenance, calibration, and administration.

Specifically, the following procedures were inspected in detail:

"Installation of Solid State Trip Units into DB Type Switchgear" - SP-593, Revision 1 dated January 3, 1986; and

"Calibration of Solid State Trip Devices" (SP-582) - Revision 6 dated January 3, 1986.

These two procedures were those used to install the solid state trips into the "B" charging pump, DB-50 breaker. Much of the technical content of SP-593 and SP-582 was based upon a Westinghouse technical manual titled "Instructions for the Retrofit of DB-15, DB-25, DB-50, DB-75 and DB-100 Low Voltage Breakers" which the inspector also examined.

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

14. Preparation for Refueling (60705)

A refueling outage is scheduled to commence on February 1, 1986. The inspector continued to monitor licensee preparations for refueling including the adequacy of procedures and administrative controls for the upcoming refueling activities/outage. The inspector also determined that the licensee is scheduled to submit a formal proposed core reload description to NRR within the week of January 13, 1986.

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