



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

Report No.: 50-261/90-27

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: November 26-30, 1990

Inspector: J. Lenahan
 for M. Thomas

12/11/90
 Date Signed

Accompanying Personnel: F. Jape, November 27-29, 1990

Approved by: F. Jape
 F. Jape, Chief
 Engineering Assessment Section
 Engineering Branch
 Division of Reactor Safety

12/11/90
 Date Signed

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of design changes and modifications and engineering support activities.

Results:

In the areas inspected, violations or deviations were not identified. The Nuclear Engineering Department (NED) provides design engineering support to the plant mainly during modification development and implementation. The involvement by NED during modification development and onsite availability during modification implementation is considered a strength. The Technical Support Unit provides engineering support to the plant on a day-to-day basis. There was good interface and cooperation between NED and Technical Support during resolution of the service water piping minimum wall thickness concern. There was a weakness in the licensee's method of prioritizing and tracking items which has resulted in a backlog of open items assigned to Technical Support. The licensee had recognized this weakness and other weaknesses in the Technical Support Department activities prior to this inspection. The Technical Support Unit is developing a Technical Support Improvement Plan to address the weaknesses.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. Barnett, Manager, Outage and Modifications
- W. Biggs, Manager, NED Site Unit
- *S. Billings, Regulatory Compliance Technical Aide
- R. Clark, Senior Specialist, Mods/Projects
- *C. Coffman, Project Engineer, Onsite Nuclear Safety
- *D. Crook, Senior Specialist, Regulatory Compliance
- R. Dayton, Support Subunit Supervisor, Technical Support
- *C. Dietz, Manager, Robinson Nuclear Project
- M. Heath, Engineering Supervisor, Mods/Projects
- F. Murray, Regulatory Compliance Coordinator, Plant Support Unit
- *T. Niemi, Project Engineer, Quality Assurance
- *M. Page, Manager, Technical Support
- *R. Parsons, Manager, Robinson Engineering Support, NED
- *W. Powell, Lead Mechanical Engineer, NED Site Unit
- *D. Quick, Manager, Plant Support Unit/Acting Plant General Manager
- L. Wilson, Senior Specialist, Mods/Projects

Other licensee employees contacted during this inspection included craftsmen, engineers, technicians, and administrative personnel.

NRC Resident Inspectors

- *K. Jury, Resident Inspector

*Attended exit interview

Acronyms and initialisms used throughout this report are listed in the last paragraph.

2. Design, Design Changes and Modifications (37700)

The inspector reviewed the modification packages listed below to determine the adequacy of the 10 CFR 50.59 evaluations, verify that the design changes were prepared and being installed in accordance with licensee administrative procedures and applicable industry codes and standards, field changes were reviewed and approved in accordance administrative controls, and post modification test requirements were specified. The following modifications were reviewed.

a. M-994, Control Room Habitability

This modification was implemented to change the control room HVAC system in order to reduce unfiltered inleakage and to meet the single

failure criteria. This modification also implements the design changes that are required by NUREG 0737 Item III.D.3.4, Control Room Habitability. The purpose of Item III.D.3.4 is to assure that control room operators are adequately protected against the effects of an accidental release of toxic and radioactive gases, and that the nuclear power plant can be safely operated or shut down under design basis accident conditions.

During field observations, the inspector observed activities related to implementation of modification M-994. The inspector also observed portions of the refrigerant system leak testing where nitrogen was used to pressurize the system in order to check for leaks. The system was unable to maintain pressure as required which was an indication that there were some leaks. Licensee personnel stated that troubleshooting would be performed to locate and repair the leaks.

b. M-1001, Service Water Pipe Replacement-Containment Penetrations to Service Water Booster Pumps

This modification was written to replace the SW supply and return piping that lies between the containment penetrations and the SW booster pumps. The piping is being replaced because it had developed pinhole leaks at some weld joints due to MIC. The leaking welds had been previously sleeved, but the sleeving was considered only a temporary repair. This modification also involved adding throttling valves on the discharge of the containment fan cooler units and installing removable Venturi tubes in the discharge lines. During field observations the inspector observed implementation activities associated with this modification. The new throttle valves had not been installed at the time of this inspection. Licensee personnel stated that the valves had not arrived on site which delayed implementation of that particular section of the modification. Work on applicable sections of the modification would resume as soon as applicable components and parts arrived.

During review of the above modification packages the inspector noted that each modification had a section which provided the DBD information for the application modification. The inspector considered this to be a positive input to the modification packages.

In the areas inspected, violations or deviations were not identified.

3. Engineering Support Activities

The inspector reviewed various NED and Technical Support activities in an effort to assess how the engineering staffs respond to problems and concerns identified in the plant.

a. NED Site Unit

The NED site unit primarily provides support during all phases of the development and implementation of plant modifications. During the current refueling outage the majority of the Robinson NED support staff has been moved to the site to provide support during modification implementation. The inspector considers NED's close involvement and interface with the plant during modification implementation to be a strength in the modification program.

NED provides engineering support when requested by the plant for issues not related to modifications. The support is provided by means of a RET. NED normally receives RETs from the Technical Support Unit. The majority of the RETs currently assigned to NED are related to the current refueling outage. One RET reviewed by the inspector (RET-90-151) involved SW repairs for Generic Letter 89-13. NED established minimum pipe wall thickness based on seismic considerations. The coordination and interface between NED and Technical Support to resolve this problem was good.

During discussions with the NED site manager, the inspector was told that NED plans to take a more active role in providing support to the plant during normal operations. NED will assume more responsibility for evaluating temporary modifications and performing engineering evaluations. These activities are currently the responsibility of the applicable system engineers in Technical Support. The inspector considers NED's plan to become more active in providing support for daily activities to be a positive action.

b. Technical Support Unit

Engineering and technical support are provided to the plant primarily by the Technical Support Unit. System engineers are part of the Technical Support Unit.

The inspector held discussions with the Technical Support Manager, engineering supervisors, and system engineers concerning the duties and responsibilities of system engineers. Licensee personnel stated that some weaknesses had been identified in Technical Support and the system engineer program. Some of the weaknesses include:

- ° There is no formalized training or development program in place yet to ensure that system engineers are qualified.
- ° There was no mechanism for ensuring that system engineers were performing their assigned duties. For example, although system engineers were required to perform walkdowns of their assigned systems, this requirement was not always enforced.

- There was a weakness in the method for prioritizing and tracking items assigned to Technical Support.

Licensee personnel stated that a Technical Support Improvement Plan is being developed to address the above weaknesses as well as others that have been identified. This improvement plan was discussed with NRC management in the Region II Office on November 27, 1990.

The inspector reviewed the list of open items assigned to Technical Support. The inspector also reviewed the lists of SCRs and RAILS assigned to Technical Support. There are a large number of open items assigned to Technical Support. The licensee has implemented a Work Management System to address the backlog of open items.

The WMS provides a means for Technical Support to prioritize and track items assigned to the Unit. The inspector reviewed records which indicated that as of October 1, 1990, there were over 1450 backlog items. It was stated that the list included some items which were already assigned to various system engineers. In addition, some of the items were also included in other tracking systems such as the SCRs and RAILS lists. The licensee began a backlog prioritization on October 1, 1990, and has started entering the items in the WMS. As of November 16, 1990, there were approximately 1075 open items assigned to Technical Support which needed to be entered into the WMS. Licensee personnel also stated that additional staff will be added to help prioritize and reduce the number of open items.

The inspector determined from reviewing the various Technical Support activities that, although weaknesses exist in the program, the licensee has recognized the weaknesses and is developing corrective actions to address the problems. The effectiveness of the licensee's improvement plan will be reviewed during subsequent inspections.

In the areas inspected, violations or deviations were not identified.

4. Exit Interview

The inspection scope and results were summarized on November 30, 1990, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

5. Acronyms and Initialisms

CFR	Code of Federal Regulations
DBD	Design Basis Documentation
HVAC	Heating Ventilation and Air Conditioning
MIC	Microbiologically Induced Corrosion

NED	Nuclear Engineering Department
NRC	Nuclear Regulatory Commission
RAIL	Regulatory Action Item List
RET	Request for Engineering Task
SCR	Significant Condition Report
SW	Service Water
WMS	Work Management System