



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

Report No.: 50-261/90-07

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: April 2 - 6, 1990

Inspector: M. McKenzie Thomas  
M. Thomas

4-18-90  
Date Signed

Approved by: William K. Poethen for  
F. Jape, Section Chief  
Quality Performance Section  
Operations Branch  
Division of Reactor Safety

4-19-90  
Date Signed

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of Design Changes and Modifications.

Results:

In the areas inspected, violations or deviations were not identified. The Nuclear Engineering Department is involved in all phases of the modification package development. This includes preparation of the implementing procedures and post modification test procedures. The level of involvement by design engineering in the modification package development is considered a strength in the licensee's design change program.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*R. Barnett, Shift Outage Manager
- W. Biggs, Manager, NED Site Engineering Support
- R. Clark, Senior Specialist, Mods/Projects
- \*S. Clark, Procurement Engineering Supervisor
- \*S. Griggs, Technical Aide, Regulatory Compliance
- E. Harris, Jr., Manager, Onsite Nuclear Safety
- \*M. Heath, Engineering Supervisor, Mods/Projects
- C. Kelly, Engineering Technician, Planning & Scheduling
- \*T. Kinnaman, Engineering Supervisor, Technical Support
- L. Kirkland, Senior Specialist, Mods/Projects
- \*J. Kloosterman, Director Regulatory Compliance/Acting Plant Manager
- \*A. McCauley, Principle Engineer, Onsite Nuclear Safety
- M. Page, Manager, Technical Support
- D. Smith, Senior Specialist, Mods/Projects
- R. Smith, Manager, Maintenance
- A. Wallace, Operations Coordinator
- \*H. Young, Manager, QA/QC

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

#### \*NRC Resident Inspectors

- \*L. Garner, Senior Resident Inspector
- 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)

- a. 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 installed in accordance with licensee administrative procedures and applicable industry codes and standards; field changes were reviewed and approved in accordance with administrative controls; and post modification test requirements were specified. The following modification packages were reviewed.

M-955, Emergency Diesel Generators A&B Upgrade. This modification consisted of rerouting of the fuel oil drain piping to eliminate leaking of fuel oil onto the exhaust manifold; addition of air line

The inspector reviewed the DCNs and verified that they had been initiated, reviewed, and approved in accordance with the licensee's administrative controls and the changes were addressed in the 10 CFR 50.59 safety evaluation.

There were no violations or deviations identified in the areas inspected.

b. PIRs

One of the mechanisms used by the licensee for personnel to identify problems and concerns requiring technical and/or engineering assistance is a PIR. PIRs are generally initiated in situations where work requests cannot handle the scope of the work or evaluations desired. The inspector reviewed open and closed PIRs which were initiated by licensee personnel from various departments. All PIRs are reviewed by the immediate supervisor and unit supervisor of the individual who initiated the PIR. The PIR is then assigned to the appropriate department for review. These reviews provide a mechanism for assessing the need of the request and the priority that should be assigned to the PIR. For those PIRs reviewed by the inspector, adequate reviews were performed by licensee personnel. PIRs deemed necessary are then assigned a PCN number by the Long Range Planning Group. PCNs provide a mechanism for tracking PIRs. Some PIRs resulted in modifications being generated. For those PIRs which resulted in modifications, the PIRs are not closed until the modifications have been completed. There were approximately 400 open PIRs at the time of this inspection. The number of open PIRs includes approved modifications which were in various stages of completion.

There were no violations or deviations identified in the areas inspected.

3. Exit Interview

The inspection scope and results were summarized on April 6, 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.

4. Acronyms and Initialisms

CFR	Code of Federal Regulations
DCN	Design Change Notice
EDG	Emergency Diesel Generator
LER	Licensee Event Report
NED	Nuclear Engineering Department (Corporate)
PCN	Project Control Number
PIR	Plant Improvement Request

isolation valves on lines to the oil boosters to allow barring of the EDGs using the air start system; new lube oil sample taps to permit better control and monitoring of lube oil quality; changes to the lube oil keep warm system to ensure proper temperatures will be maintained in the oil sump; addition of permanent lifting beams in the EDG rooms to make EDG maintenance easier and faster; addition of strainers to the fuel oil supply lines to provide additional fuel oil filtration capabilities between the EDG fuel oil transfer pumps and the inlet solenoid valves upstream of the EDG fuel oil day tanks; starting air compressor low air alarm switch replacement to provide more accurate indication of low starting pressure; EDG breaker indication modification to allow for breaker trip indication at the RTGB and position indication on both the RTGB and local control panel; and installation of new supports for the exhaust ducts for both EDGs.

M-966, RHR Cold Leg Recirculation Pressure Interlock. This modification consisted of installing new safety related, environmentally qualified pressure switches in the RHR/SI cross-tie piping. This modification corrected a plant condition which created a potential violation of the single failure criterion. This problem was reported and discussed in LER 87-030-00 dated December 17, 1987. The LER was closed in NRC Inspection Report 50-261/89-08.

M-981, RHR 744B Valve Reorientation. This modification involved reorientation of valve RHR 744B and its operator by rotating the valve around the valve/pipe centerline, and by rotating the operator around the valve stem centerline. This reorientation was necessary to avoid interferences with existing plant components during installation of the new larger valve operator on valve RHR 744B. The valve internals were also replaced. The valve internals replacement and the operator replacement were performed under Engineering Evaluation 88-148.

During review of the above modifications, the inspector noted that the cognizant engineers in NED responsible for the modification packages reviewed were involved in all phases of the modification development. This included development of the implementing procedures and the PMT procedures. The inspector considers this level of involvement by NED to be a strength in the licensee's modification program. The safety evaluations and PMT requirements for the applicable modifications were adequate.

While reviewing modification package M-955, the inspector noticed that there were several DCNs written which involved construction interferences associated with installation activities. The inspector questioned licensee personnel concerning these DCNs because they were generated after the modification package appeared to have been completed. Licensee personnel stated that the DCNs were written for the installation of new supports on the exhaust ducts of both EDGs. The decision was made to add the supports via DCNs to modification package M-955 in lieu of developing a separate modification package because of the time and costs involved in developing a new modification package.

PMT	Post Modification Testing
QA	Quality Assurance
QC	Quality Control
RHR	Residual Heat Removal
RTGB	Reactor Turbine Generator Board
SI	Safety Injection