



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

Report No.: 50-261/90-01

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: January 29 - February 2, 1990

Inspector:

*J. J. Blake*

2/26/90  
Date Signed

Approved by:

*J. J. Blake*

2/26/90  
Date Signed

J. J. Blake, Chief  
Materials and Processes Section  
Engineering Branch  
Division of Reactor Safety

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of licensee corrective action on previous inspection findings, review of radiographic film, and review of 1988 refueling outage inservice inspection (ISI) 90-day report.

Results:

Carolina Power and Light (CP&L) personnel were actively involved in assuring quality and resolution of technical issues from a safety standpoint as demonstrated in their responses to NRC open items addressed in paragraph 4 of this report and their assistance in helping the inspector achieve his inspection objectives by resolving satisfactorily his technical concerns.

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

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- C. R. Dietz, Manager, Robinson Nuclear Project Department
- \*S. A. Griggs, Technical Aide, Regulatory Compliance
- \*R. R. Hitch, Senior Specialist, Environmental and Radiation Control
- \*J. D. Kloosterman, Director, Regulatory Compliance
- \*J. Latimer, Project Welding Engineer, Technical Support
- \*R. E. Morgan, Plant General Manager
- \*M. F. Page, Manager, Technical Support
- \*R. F. Powell, Engineering Supervisor
- \*S. Pruitt, ISI Coordinator, Technical Support
- \*H. J. Young, Manager, Quality Assurance/Quality Control
- \*R. B. Weber, Senior ISI Specialist, Technical Support

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

#### NRC Resident Inspector

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

\*Attended exit interview

### 2. Review of Radiographic Film, Unit 2 (57090)

The inspector reviewed a sample of radiographs and their associated records to determine whether they were prepared, evaluated, and maintained in accordance with applicable commitments and code requirements. This review was also performed to determine the quality of welding at the H. B. Robinson site. The applicable codes for this review were ASME Boiler and Pressure Vessel Code, Sections III and V, 1983 Edition and ANSI B31.1-1967, "Code for Power Piping". Radiographic film packages for weld's listed below were reviewed:

<u>Weld Identification No.</u>	<u>Drawing No.</u>	<u>System</u>	<u>Size</u>
FW-012	FSM1018-2682	Auxiliary Feed Water	6" Dia.
2-5A	2D33462-7	Reactor Coolant System	3" Dia.
1-2AR2	2D33462	Reactor Coolant System	1" Dia.
1-7A	2D33462	Reactor Coolant System	3" Dia.
3-5A	2D33462	Reactor Coolant System	3" Dia.
1-1A	3D20655	Reactor Coolant System	1" Dia.
1-3A	3D20655	Reactor Coolant System	1" Dia.
1-2A	3D20655	Reactor Coolant System	1" Dia.
HBR2-RHR-001	FSM-981-2532	Residual Heat Removal	10" Dia.
HBR2-RHR-002	FSM-981-2532	Residual Heat Removal	10" Dia.
FWHBR2-FW-008	FSM-961-2507	Feedwater	20" Dia.

<u>Weld Identification No.</u> (cont'd)	<u>Drawing No.</u>	<u>System</u>	<u>Size</u>
FWHBR2-FW-007	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-006	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-005	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-004	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-003	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-002	FSM-961-2507	Feedwater	20" Dia.
FWHBR2-FW-001	FSM-961-2507	Feedwater	20" Dia.

Parameters verified during the review of radiographs for the above welds were: Penetrameter type, size, and placement; penetrameter sensitivity; film density and density variation; geometrical unsharpness; film identification; weld coverage; and weld quality. As a result of the above review the inspector noted that weld 1-1A which was on the same radiographic film as welds 1-2A and 1-3A did not have a penetrameter on any of the three film segments. Although the film density in the area of interest was acceptable for all three welds when compared to the penetrameters on welds 1-2A and 1-3A, the appropriate hole in the penetrameters for the welds were barely discernible. The inspector was concerned that this technique for radiographing multiple welds simultaneously without penetrameters on the welds at the point of greatest radiation angularity could produce questionable results if defects had been present in the weld. Subsequent discussions with CP&L's Level III examiner were helpful in assuring that when a production weld has a specific weld number it will also have a penetrameter. Technique and radiographer performance will continue to be monitored by the inspector.

Within the areas examined, violations or deviations were not observed.

3. Review of 90-Day Inservice Inspection Report for the 1988-89 Refueling Outage

This report was for the first refueling outage of the third 40 month period of the second 10-year inspection interval. This report of examinations performed had been submitted to NRC to satisfy ASME Section XI, 1977 Edition through the Summer 1978 Addenda. The inspector however had specific questions on the submitted data and these questions were satisfactorily addressed by the licensee's Senior Inservice Inspection Specialist.

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

4. Licensee Action on Previous Inspection Findings (92701 and 92702)

(Closed) Inspector Follow-up Item No. 50-261/87-16-01, "MT Procedure Discrepancies"

CP&L's magnetic particle procedure No. ISI-70 has been revised to incorporate the inspector's comments. This revision was approved for implementation during the 1988 refueling outage.

The inspector reviewed the changes incorporated by the revision and considers the licensee's corrective actions to be satisfactory.

(Closed) Inspector Follow-up Item No. 50-261/87-16-02, "ISI Replacement Verification of Acceptability"

CP&L's program procedure TMM-015, "Inservice Inspection Repair and Replacement Program", has been revised to incorporate the inspector's comments related to verification of acceptability or replacement parts and components. Paragraph 5.1.3 of the licensee's procedure now references the ASME Section XI, paragraph I WA-7220 requirements. The licensee's corrective actions regarding enhancing the clarity of this procedure is satisfactory.

(Closed) Inspector Follow-up Item 50-261/84-45-01, "Service Water Degradation"

This item was open to track the licensee's corrective actions during the initial stage of the discovery, investigation and temporary repair of the microbiologically influenced corrosion (MIC) in the service water system at the H. B. Robinson facility. The licensee has since replaced all the 304 stainless steel piping in containment with AL6XN material or 316 stainless steel and a monitoring program has been established for early detection of degradation if the corrosion resistance qualities of the new pipe is found to be insufficient to control the problem. In addition, chlorine injection has been installed at the service water intake. The licensee plans to replace 1/2 of all the service water piping in the auxiliary building during the 1990 outage which is scheduled for September. The remaining service water piping in the auxiliary building will be replaced during the 1992 refueling stage. The inspector's review of the licensee's corrective actions indicated that adequate controls are in place to prevent significant pipe degradation in the future and this tracking item is considered closed.

(Closed) Inspector Follow-up Item 50-261/88-17-01, "Enhancement of Programmatic Procedures for Hydrostatic Testing"

This item addressed several inspector concerns that had resulted from a review of the 1st Inspection Interval completed Hydrostatic Test program. The licensee is presently upgrading the second Interval hydrostatic test program. The inspector reviewed the draft on the new program and a random sample of the new hydrostatic test procedures. This review revealed that significant improvements had been made to clarify code requirements and to control test parameters. Other enhancements noted included the licensee's commitment to NRR's new directive that inservice inspection related relief request must be

approved by the NRC prior to implementation; the position of all valves in a specific test will be noted in the test procedure; and two party verifications of the position of valves will be performed. The inspector considers the licensee actions to date to be satisfactory.

(Closed) Severity Level IV Violation 50-261/89-02-01, "Inadequate Corrective Maintenance Procedure CM-010 Service Water Pump Overhaul"

CP&L's letter of response dated March 15, 1989, and letter of supplemental response dated May 4, 1989, have been reviewed and determined to be acceptable by Region II. The inspector reviewed the revised procedure for the overhaul of the service water pump as well as the additional corrective actions being taken by the licensee to upgrade all maintenance procedures as described in their letter of response. The inspector concluded that CP&L had determined the full extent of the subject noncompliance, performed the necessary survey and follow-up actions to correct the present conditions and developed the necessary corrective actions to preclude recurrence of similar circumstances. The corrective action as identified in the letter of response have been implemented.

Within the areas examined, violations or deviations were not identified.

#### 5. Exit Interview

The inspection scope and results were summarized on February 2, 1990, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. Dissenting comments were not received from the licensee.