UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report No. 50-261/80-38

Licensee: Carolina Power and Light Company
411 Fayetteville Street
Raleigh, NC 27602

Facility Name: H. B. Robinson 2

Docket No. 50-261

License No. DPR-23

Inspection at Robinson site

Inspector: A K Hardin — 2/10/81
A. K. Hardin — Date Signed

Approved by: R.C. Lewis for — 2/10/81
P. J. Kellogg, Section Chief, RONS Branch — Date Signed

SUMMARY

Inspection on December 15-19, 1980

Areas Inspected

This routine, unannounced inspection involved 32 inspector-hours on site in the areas of IE Bulletins and Circulars, Reactor Operations review, and Open and Unresolved items.

Results

Of the four areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*R. B. Starkey, Jr., General Manager
*J. M. Curley, Engineering Supervisor
*D. H. Baur, QA Specialist

Other licensee employees contacted included shift foremen, reactor operators, QA personnel and records personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 19, 1980 with those persons indicated in paragraph 1 above. The licensee acknowledge the inspection comments and committed to completion dates on items discussed in paragraphs 6 and 9.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 261/78-03-02. This item concerned a conflict with Technical Specifications in which the licensee was blocking the steamline/steam header differential pressure safety injection trip below 2000 psig primary coolant pressure to prevent an SI during reactor cooldown. This item was resolved by a revision to the Technical Specifications, Amendment No. 47 to Licensee No. WPR-23, which authorized the steamline/steam header differential pressure safety injection trip to be bypassed below a primary coolant system pressure of 2000 psig.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Circulars

For the IE Circulars (IEC) listed below, the inspector verified that the circular was received by the licensee, that a review for applicability was performed and for those circular applicable to the facility, appropriate corrective actions had been taken or was scheduled to be taken.

- IEC 80-01 "Service Advice for General Electric Induction Disc Relays"

- IEC 80-02 "Nuclear Power Plant Staff Work Hours"
- IEC 80-05 "Emergency Diesel-Generator Lubricating Oil Addition and Onsite Supply"
- IEC 80-06 Not Applicable at Robinson 2
- IEC 80-07 "Problems With HPCI Turbine Oil Systems"
- IEC 80-08 Not Applicable at Robinson 2
- IEC 80-10 "Failure to Maintain Environmental Qualification of Equipment"
- IEC 80-11 "Emergency Diesel Generator Lube Oil Cooler Failures"
- IEC 80-13 "Grid Strap Damage in Westinghouse Fuel Assemblies"
- IEC 80-14 "Radioactive Contamination of Plant Demineralized Water Systems and Resultant Internal Contamination of Personnel"
- IEC 80-15 "Loss of Reactor Coolant Pump Cooling and Natural Circulation Cooldown"
- IEC 80-17 "Fuel Pipe Damage Due to Water Jet From Baffle Plate Corner"
- IEC 80-23 "Potential Defects in Beloit Power Systems"
- IEC 80-24 "AECL Teletherapy Unit Malfunctions" (Not applicable at Robinson 2)

6. IE Bulletins (IEB)

IEB 79-21 - The inspector had reviewed the licensee's action on IEB 79-21 entitled "Temperature Effects on Level Setpoints" during a previous inspection and the actions had been considered responsive. An items was left open (80-13-01) for future review since the licensee had stated that further evaluation of steam generator level instrumentation reference leg boiling would be conducted. On the current inspection the inspector brought to the licensees attention that some licensees, NTOL's for examples, were being required by NRR, to add a 3 percent minimum level reference to the desired trip value before adding allowances for reference leg heating and instrument error. The licensee was ask how the low-low level trip setting for the steam generator water levels had been determined. The licensee supplied their analysis which resulted in the following conclusions.

The steam generator narrow range level taps are 143 inches apart, the lower tap being about 8 inches above the tube bundle. According to the licensee, the narrow range level instrument is calibrated for a 108 inch zero to 100 percent span starting at 5.5 inches above the lower tap. A value of 5.5 inches is equivalent to 3.8 percent. Thus zero percent on the narrow range steam generator level instrument is 3.8 percent of the total span above the zero position of the lower pressure tap. The licensees Technical Specification limit for SG level trip is 14 percent. Thus the trip should occur at

17.8 percent above the zero position of the lower level tap. In regard to the open item related to verifying whether reference leg boiling could occur in the SG level instrumentation, the licensee stated they would plan to resolve the question by 1/31/81.

7. Failure of Westinghouse NBFD Relays

The licensee had experienced several failures of NBFD relays. Open item 261/80-18-01 was established to follow the progress of tests being conducted by Westinghouse to determine and eliminate the cause of the relay failures. On December 3, 1980, the relay vendor, Westinghouse, informed the licensee that their tests indicate the coil starting lead is touching or very close to the outer layers of the coil. The proximity of the start lead to the coil in conjunction with the high (2000 volts) generated when the relays are switched off plus a slight aging of the insulation causes an internal short which becomes progressively worse until failure occurs. The vendor has informed the licensee that they are taking steps to correct the problems and will supply improved replacement relays. During 1980 the licensee has reported relay failures by means of a licensee event report (LER). These are identified as LER Nos. 80-26, 80-15, 80-15 rev. 1, 80-25, and 80-27. The relay problem will continue to be followed as open item 80-18-01, pending replacement of the existing relays with improved relays. The LERs related to relays are closed.

8. Operations Review

The inspector visited the control room during the inspection. Control room manning met Technical Specification requirements. All annunciator lights on the main panels which were in the alarm mode were discussed with a licensed operator. The operator was knowledgeable as to the reason for the lights. No items of noncompliance were observed.

9. Review of Maintenance Instruction

IE Report 50-291/78-12 listed an open item (78-12-02) relative to review and upgrading of the licensee's maintenance program. Eight items were listed as requiring review for the potential for being included in the maintenance instruction. In the process of reviewing the licensees actions the inspector found that the procedure does not specify any time function for completion of all reviews of completed work request authorization forms and that the time periods for all appropriate reviews to be completed is excessive. For example, the inspector found 12 work requests affecting safety related items in which the time span between Maintenance foreman review and QA review was from 4 to 8 months. The licensee agreed a problem existed. The licensee stated the problem would be reviewed and corrective action initiated by January 31, 1981. This item is designated as 261/80-38-01.