



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

Report No. 50-261/79-5

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

Facility Name: H. B. Robinson 2

Docket No. 50-261/79-5

License No. DPR-23

Inspection at H. B. Robinson Site and Harris Energy and Environmental Center

Inspector: *G. R. Jenkins* 3/22/79
G. R. Jenkins Date Signed

Approved by: *A. F. Gibson* 3/23/79
A. F. Gibson, Section Chief, FF&MS Branch Date Signed

SUMMARY

Inspection on February 26 - March 2, 1979

Areas Inspected

This routine unannounced inspection involved 26 inspector-hours onsite in the areas of RC&T qualifications, radiation protection training, health physics related licensee audits, instruments and equipment, radiological controls, posting, and labeling, personnel dosimetry, followup on previously identified item.

Results

Of the seven areas inspected, no apparent items of noncompliance or deviations were identified in six areas; one apparent item of noncompliance was found in one area (Infraction - RC&T technicians used in responsible position without sufficient experience) (79-05-01). No apparent deviations were found.

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DETAILS

1. Persons Contacted

Licensee Employees

R. B. Starkey, Plant Manager
*D. S. Crocker, E&RC Supervisor
*J. M. Curley, Engineering Supervisor
*W. Garrison, QA Supervisor
D. R. Gainey, Jr., RC&T Foreman
B. H. Webster, Director - Environmental and Radiation Control
(Corporate Office)
H. Lipa, E&RC Laboratory Supervisor (Harris Center)
M. L. Layton, Senior Specialist, HP/Chemistry Training (Harris Center)

Other licensee or contractor employees contacted included one construction craftsman, and three technicians.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on February 28, 1979 with those persons indicated in Paragraph 1 above. Licensee management acknowledged the inspector's comments regarding the use of RC&T technicians in a responsible position without the minimum required two years experience. Licensee management stated that investigation of possible entry into containment without a proper RWP was continuing. These items were also discussed with the Plant Manager by telephone on March 6, 1979.

3. Licensee Action on Previous Inspection Findings

(Closed) Infraction (78-23-01) Exposure greater than 5(N-18). An inspector reviewed the procedure for routine audit of personnel dosimetry records at the Harris Energy and Environmental Center, as described in CP&L's report of August 22, 1978, and had no further questions. (Details, paragraph 13).

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraph 11.b.

5. RC&T Technician Qualifications

Technical Specification 6.3.1 requires that members of the facility staff meet or exceed the minimum qualifications of ANSI N18.1 - 1971 for comparable positions. Section 4.5.2, ANSI N18.1, states that technicians in responsible positions shall have a minimum of two years of working experience in their specialty. An inspector discussed RC&T technician qualifications with the E&RC Supervisor, and specifically questioned if the technicians assigned to shift coverage met the two year experience requirement. The E&RC Supervisor said that of approximately 17 technicians that have been assigned to shift coverage, about 10 have less than two years health physics experience. He said that all technicians assigned to shift are qualified in radiation protection procedures in accordance with the criteria provided by NRC pertaining to T. S. 6.2.2, but that a minimum experience level is not part of that qualification program. In this discussion and in a telephone conversation with the Plant Manager on March 6, 1979, both stated that the licensee's position had been that the Shift Foreman fulfilled the "responsible position" functions; however, both acknowledged that Shift Foremen are not qualified in radiation protection procedures per T. S. 6.2.2. The inspector stated that the RC&T technicians on shift appeared to be functioning in a responsible position in that they evaluate radiological hazards, specify controls, approve radiation work permits for RC&T, and, in general, carry out all health physics responsibilities during the shift. The inspector cited the assignment of RC & T technicians with less than two years experience as the health physics representative on shift as noncompliance with Technical Specification 6.3.1. (79-05-01).

6. Licensee Audits

An inspector reviewed 7 Operations QA Surveillances and 2 QA Audits conducted since June, 1978 which included radiation protection areas. By discussion with the E&RC Supervisor and review of followup audits, the inspector determined that adequate corrective action had apparently been taken on all radiation protection related findings and areas of concern. The inspector had no further questions.

7. Radiological Training

An inspector participated in the basic radiation protection training program by observing the videotape and completing the written examination. The inspector discussed a new training videotape, which is in preparation, with the E&RC Supervisor and the Senior Specialist, HP/Chemistry Training at the Harris Center. The inspector commented that the following areas should receive more emphasis in the new program:

- a. maintaining exposures as low as reasonably achievable;
- b. tool/equipment contamination control;
- c. items required by 10 CFR 19.12.

Licensee representatives acknowledged the inspector's comments and stated that these concerns either already were or would be incorporated into the new videotape. The Senior Specialist, HP/Chemistry Training indicated that the new videotape would probably be complete and available for use at the plant by May, 1979. The inspector had no further questions.

8. Instruments and Equipment

- a. An inspector checked selected friskers, portal monitors, and survey meters for operability and for current calibration stickers. No deficiencies were identified.
- b. The inspector reviewed selected instrument calibration records to determine if calibrated in accordance with Health Physics Procedure HP-11, "Survey Instrument Calibration", and Health Physics Instruction HPI-200, "Calibration of Radiation Survey and Personnel Monitoring Instruments", and if acceptable results were obtained. No deficiencies were identified.
- c. The hand and foot monitor and the two portal monitors are source checked weekly for operability. Semi-annually the alarm set points for these monitors are checked and adjusted, if necessary, to alarm just above background. The inspector expressed concern that the alarm set points are based on the background reading, and that no efficiency factors are known to relate personnel contamination (dpm) to the observed net count rate (cpm). Licensee representatives stated that efficiency factors for the portal monitors and hand and foot counter would be determined (79-05-02).

9. Radiological Posting, Labeling and Control

Through plant tours and observations, an inspector determined that high radiation areas, radiation areas, contaminated areas, airborne radioactivity areas, and radioactive material storage areas appeared to be properly posted and controlled. All radioactive material containers observed in the auxiliary building appeared to be properly labeled. Bags of paper clothing were observed in the drumming room without labels. Although these bags apparently contained sufficiently low-level radioactivity to be exempt from labeling requirements, the E&RC Supervisor said that plant policy is to label all such containers; the bags were promptly labeled. The inspector observed that items required by 10 CFR 19.11 were posted. No items of noncompliance were identified.

10. Contamination Control

- a. A major plant modification was in progress involving installation of fire protection systems. The work is performed by contract personnel, and involves penetrating walls, ducts, etc. at various locations in the plant.

An inspector specifically reviewed contamination control aspects associated with this work. A contract health physics technician had been assigned specifically to support this work. By observations and interviews with a contract health physics technician, a contract worker involved in the modification, and RC&T personnel, the inspector determined that the workers appeared to be adequately trained and instructed and complying with contamination control, protective clothing requirements, tool and equipment removal policies, and other health physics practices. No items of noncompliance were identified in this area.

- b. When questioned, licensee representatives said that periodic contamination surveys are made of tools in the tool crib located outside the Unit 2 area, but that such surveys are not documented. An RC&T Foreman stated that this survey would be added to the monthly survey sheet for documentation.
- c. An inspector discussed area contamination surveys of areas outside the Unit 2 restricted area with RC&T personnel, who said that such surveys had been made in the past but recently deleted. The E&RC Supervisor stated that monthly sweep surveys of high traffic areas, including the hard-hat building and the administration building, would be initiated. The inspector had no further questions.

11. Use of Radiation Work Permits

- a. A licensee representative said that some recent work on the fire protection modification had been performed inside containment while operating at power. He said the work was limited to the area outside the crane wall, and the contract workers were accompanied by a health physics technician. An inspector reviewed RWP No. 222-8, dated February 22, 1979, for Containment Vessel (CV) entry to install conduit for fire protection. Two CV entries were made on that date by the same crew, consisting of 2 contract workers and one contract HP technician. After reviewing the RWP, the inspector reviewed the Containment Entry Log for February 22, 1979, and noted a discrepancy between pocket dosimeter readings on the log compared with the RWP. It appeared that the discrepancy resulted either from improper reading of the dosimeter or faulty communications between the worker and the control room personnel

who take Containment Entry Log data by telephone. The inspector noted that this error was not significant and was conservative, but stated it may be indicative of a broader problem. The E&RC Supervisor acknowledged the inspector's concern and stated that he would review the situation.

- b. In reviewing the Containment Entry Log for February 22, 1979, the inspector noted that it included 4 operations personnel for that date. The inspector attempted to review the RWP for CV entry by the operations personnel, but none could be located by RC&T. The RWP issue log was blank beside RWP number 222-13, and no RWP No. 222-13 was in the RWP file. The E&RC Supervisor said that an investigation would be made to determine the status of the RWP in question. The inspector identified the possibility that a CV entry was made without a proper RWP as an unresolved item (79-05-03).

12. Leak From Refueling Water Storage Tank Recirculation System

During a previous inspection, an inspector noted a February 2 entry in the Operating Log regarding a leak on the auxiliary building roof while recirculating the refueling water storage tank (RWST) through a demineralizer. An inspector discussed this event in more detail with the E & RC Supervisor during the current inspection. He said the RWST water leaked into a valve chase on the roof, which overflowed to a storm drain which flows to an on-site catch basin. After discovery, the drain was thoroughly flushed, grab samples taken from the pond, and the sump pump was started to send the pond overflow to the discharge canal. The inspector reviewed sample results from the pond. There was no detectable gamma activity based on the Ge-Li analysis. A sample analysed on the low-beta counter indicated gross activity of $1.75E-8$ microcuries/ml, and a tritium analysis indicated $1.36E-5$ microcuries/ml. Both of the above results are typical of the pond activity based on routine weekly samples. It appeared that no significant radioactivity was released to the environment as a result of this leak.

13. Personnel Dosimetry Activities at Harris Energy and Environmental Center

CP&L's "Report of Exposure in Excess of 10 CFR 20.101(b)(2)", dated August 22, 1978, included corrective actions involving changes to the review and audit of computer generated dosimetry records. An inspector discussed this program with the Supervisor, Environmental and Radiation Control Laboratory. He said an audit procedure had been issued, a clerk had been hired for the audit function, and the monthly audits would commence in March, 1979. The inspector reviewed Radiation Control Instruction RC-PD-12, "Audit of Personnel Dosimetry Records," January 17, 1979, approved by the Director, Environmental and Radiation

Control. The inspector reviewed nine other Radiation Control/Personnel Dosimetry Instructions and discussed the general dosimetry program with the Supervisor, E&RC Laboratory and the Director, E&RC, and had no further questions.