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

MAR 0 5 1985

Report No.: 50-261/85-09

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

Docket No.: 50-261 License No.: DPR-23

Facility Name: H. B. Robinson

Inspection Conducted: February 4 - 8, 1985

Inspectors: G. R. Jenkins for R. H. Albright — Date Signed: 3/1/85

W. W. Peery — Date Signed: 2/27/85

Approved by: G. R. Jenkins, Section Chief — Date Signed: 3/1/85
Division of Radiation Safety and Safeguards

SUMMARY

Scope: This routine, unannounced inspection entailed 70 inspector-hours on site in the areas of training and qualifications, internal exposure control and assessment, external exposure control, control of radioactive materials and contamination, surveys and monitoring, inspector followup items, and IE Information Notices.

Results: One violation - Failure to control locked high radiation areas.

REPORT DETAILS

1. Licensee Employees Contacted

*G. P. Beatty, Manager, H. B. Robinson Nuclear Plant Department
*R. E. Morgan, Plant General Manager
*R. M. Smith, Manager Environmental and Radiation Control
*H. P. Beane, QA Supervisor
*F. L. Lowery, Manager Operations
*J. M. Curley, Manager Operations
*D. C. Stadler, Director Regulatory compliance
*R. E. Denny, Radiation Control Supervisor
*J. C. Sturdavant, Regulatory Compliance Specialist
W. MacCready, Project Specialist, Radiation Control
D. Weaver, Radiation Control Foreman
D. Boan, Radiation Control Foreman

Other licensee employees contacted included technicians, operators, mechanics and office personnel.

NRC Resident Inspector

*H. Whitcomb, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on February 8, 1985, with those persons indicated in paragraph 1 above. The violation of Technical Specification 6.13 for failure to control locked high radiation areas was discussed with plant management who acknowledged the violation. Unresolved items* concerning medical qualification of respirator users (paragraph 6) and questionable radiation protection training of contract workers (paragraph 4) were also discussed with plant management; the former was subsequently resolved and licensee management notified by telephone on February 13, 1985. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters

(Closed) Violation (84-17-01) This violation concerned the failure of workers to wear the required respiratory protection. The inspector reviewed and verified the corrective actions as stated in the licensee's response dated August 31, 1984.

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*Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve a violation or deviation.

(Closed) Violation (84-17-02) This violation concerned the failure to take breathing zone air samples for workers. The inspector reviewed and verified the licensee's response dated August 31, 1984.

(Closed) Violation (84-05-01) This violation concerned the failure to adequately control locked high radiation areas. Although the inspector verified that corrective actions specified in CP&L responses dated May 23, 1984, August 3, 1984, and January 8, 1985, had been taken, the corrective action provided was inadequate in that subsequent examples of violation of locked high radiation area control was identified. Therefore, while this previous violation is closed, a new, repeat violation is cited in this report.

4. Training and Qualification (83723)

a. Basic Radiation Protection Training

The licensee was required by 10 CFR 19.12 to provide basic radiation protection training to workers. Regulatory Guides 8.27, 8.29, and 8.13, outline topics that should be included in such training. Chapters 12 and 13 of the FSAR contain further commitments regarding training. Late in the inspection the inspector observed that approximately 3000 individuals had been badged as visitors. The inspector reviewed the exposure and training records of two contract mechanics. One of the mechanics received 471 mrem for the period December 8-31, 1984, and received no on-site training for radiation protection purposes. He was escorted as a visitor during his work at the facility. Health physics had a completed NRC Form 4 for the individual. Even though the mechanic had not received radiation protection general employee training, there were no controls to prevent his reaching the plant administrative limits established for personnel who have the proper training. The employee's supervisor was able to exempt the individual from all training requirements as long as the individual would be escorted as a visitor. The licensee had no controls to prevent misuse of the visitor status for employees. The inspector stated that a future inspection would determine if this was an isolated case or if abuse of the visitor status occurred during the steam generator replacement outage in 1984. This is an unresolved item pending further review by the Region II staff. (50-261/85-09-01)

b. Radiation Protection and Chemistry Technician Qualification

The licensee was required by Technical Specification 6.3 to qualify radiation protection and chemistry technicians in accordance with ANSI 18.1. The inspector discussed the qualification program with one recently qualified radiation protection technician.

The inspector reviewed the program for qualification of contract radiation protection technicians and contract chemistry technicians. The inspector discussed with one contract technician his previous experience and training to determine if it was comprehensive or if it

had been limited to selected tasks. The inspector also discussed the training and qualification program the licensee had provided, and what limits had been placed on their activities. The inspector reviewed the resumes, training records, and tests for several contract technicians. No violations or deviations were identified.

5. Audits (83723, 83724, 83725, 83726, 83728)

The licensee was required by Technical Specification 6.5.3 to perform audits of radiological controls. The inspector reviewed audits of the radiation protection operations dated August 18, 1983, March 22, 1984, and July 24, 1984; Non-conformance reports (NCR) (paragraph 8 describes a violation identified by NCRs) and the status of selective corrective actions resulting from the audits and NCR's. The inspector discussed the results of these audits with licensee representatives. The audits were conducted using staff with technical backgrounds in radiological controls.

No violations or deviations of audit requirements were identified.

6. Internal Exposure Control and Assessment (83725)

The licensee was required by 10 CFR 20.103, 20.201(b), 20.401, 20.403, and 20.405 to control uptakes of radioactive material, assess such uptakes, and keep records of and make reports of such uptakes. FSAR Chapter 12 also includes commitments regarding internal exposure control and assessment.

a. Respiratory Maintenance and Issue

The inspector reviewed records for two workers who were issued respirators to determine if they were qualified for the respirators issued. No violations or deviations were identified.

b. Respirator Fit Testing and Training

The inspector discussed the fit testing and training program with operators of the test booth. No violations or deviations were identified.

c. Uptake Assessment

The inspector discussed results of whole body counts for January 1984 to January 1985 with licensee representatives. Licensee representatives stated that no personnel exceeded 40 MPC-hrs in a seven day period or 10% MPOB during the period January 1984 to January 1985. The inspector reviewed selected bioassay results. None of these results indicated that individuals had been exposed to greater than 40 MPC-hrs in a seven day period. No violations or deviations were identified.

d. Medical Qualifications

The inspectors reviewed documentation for medical examinations performed prior to personnel using respiratory protective devices. Onsite contractor medical personnel performed the medical examinations

for certain contractor personnel. When medical parameters were not as specified by the doctor these onsite medical personnel referred the individuals to the doctor for the final determination of medical ability to use respiratory protective devices. The inspector questioned whether the doctor who wrote the acceptance criteria to the onsite medical personnel was accepting responsibility for medical examinations which he had not performed. The licensee provided the inspector with correspondence to and from the doctor concerning this issue. The inspector stated that this was an unresolved item pending review of the correspondence by Region II management. Licensee management was notified in a phone call on February 13, 1985, that this item was resolved. No violations or deviations were identified.

7. External Occupational Dose Control and Personal Dosimetry (83724)

During plant tours, the inspector checked the security of the locks at two locked high radiation areas and observed posting of survey results and the use of controls specified on selected radiation work permits (RWPs).

a. Use of Dosimeters and Controls

The licensee was required by 10 CFR 20.202, 20.201(b) 20.101, 20.102, 20.104, 20.402, 20.403, 20.405, 19.13, 20.407, and 20.408 to maintain worker's doses below specified levels and keep records of and make reports of doses. The licensee was required by 10 CFR 20.203 and Technical Specification 6.13 to post and control access to plant areas. During tours of the Radiation Control area the inspector observed the wearing of TLDs and pocket dosimeters by workers. The inspector discussed the use of dosimetry devices with radiation protection technicians. During plant tours, the inspector observed the posting of areas and made independent measurements of dose rates to assure proper posting. No violations or deviations were identified.

b. Processing of Dosimeters

The inspector discussed the operation of the TLD processing equipment with the technician assigned such operation. The inspector discussed with the Dosimetry Supervisor, the licensee's quality control and assurance measures for the TLD processing equipment. No violations or deviations were identified.

c. Dosimetry Results

For four individuals who received greater than 1.25 rems in one quarter, the inspector examined each individual's dosimetry file to determine if NRC Form 4's had been completed. No violations or deviations were identified.

8. Control of Radioactive Materials and Contamination, Surveys, and Monitoring (83726)

The licensee was required by 10 CFR 20.201(b), 20.403, and 20.401 to perform surveys to show compliance with regulatory limits and to maintain records of

such surveys. Technical Specification 6.8 required the licensee to follow written procedures. Radiological control procedures further outlined survey methods and frequencies.

a. Surveys

The inspector selectively reviewed Radiation Work Permits to determine if adequate controls were specified. The inspector discussed the controls and monitoring with the radiation protection technician writing RWPs.

During plant tours, the inspector observed radiation level and contamination survey results outside selected cubicles. The inspector reviewed selected survey records for work in high radiation areas during February 1985 and discussed with licensee representatives methods used to disseminate survey results. No violations or deviations were identified.

b. Frisking

During tours of the plant, the inspector observed the exit of workers from contamination control to clean areas to determine if proper frisking was performed by workers and that proper direct and removable contamination surveys were performed on materials. No violations or deviations were identified.

c. Locked High Radiation Area Control

Technical Specification 6.13.1 requires that each high radiation area in which the intensity of radiation is greater than 1000 mr/hr shall be provided with locked doors to prevent unauthorized access and the keys shall be maintained under the administrative control of the Shift Foreman on duty and/or the Radiation Control Supervisor. The licensee quality assurance organization, during surveillances of work in the radiation control area, identified five occasions when areas which were required to be locked due to radiation levels were found with untended open doors or openings. The five occasions are described below:

(1) On September 10, 1984, and October 25, 1984, the door leading to the reactor coolant system (RCS) filter room was found unlocked and unattended.

(2) On October 3, 1984, the debris screens (two foot square drainage openings in the missile wall) on the first level of containment were found removed. These openings provided an accessible opening into the pump bays.

(3) On December 21, 1984, the door to the Waste Holdup Tank (WHUT) Room was found open.

(4) On January 15, 1985, the door to the CVCS holdup tank room was found open and unattended. Licensee documentation indicated that this door was also found open on April 13 and May 23, 1984.

Licensee representatives stated that on all of the above occasions the areas had radiation levels greater than 1.0 Rem/hr. The inspector reviewed an internal letter of proposed corrective action dated January 31, 1985. The proposals were of a long term nature requiring new doors and frames and local audible and visible alarms. Causes for the doors to the WHUT room and CVCS holdup tank room being left open, as described in (4) and (5) above could not be determined. The inspector noted that the quality assurance organization's identification of these problems was noteworthy, but the elapsed time before licensee management initiated corrective action on those findings was excessive. The inspector stated that corrective actions for inadequate control of locked high radiation areas as described in report 84-05 (unauthorized entry into the reactor vessel sump with the incore flux thimbles retracted) and 84-31 (personnel were found in the WHUT room without an instrument and without notifying a Radiation Control Technician) apparently were not adequate to provide control of locked high radiation areas. Region II management reviewed the failures to control locked high radiation areas per Technical Specification 6.13 and determined that these were not reportable events under 10 CFR 50.73. Failure to adequately control locked high radiation areas is a repeat violation of Technical Specification 6.13 (261/85-09-02).

9. Facilities and Equipment (83727)

During plant tours, the inspector observed the flow of traffic thru change rooms and the use of temporary shielding. No violations or deviations were identified.

10. Inspector Followup Items (IFI)

(Closed) IFI (81-07-34) - This item concerned the need to prevent isolation of HVE-14 in the event of a high radiation signal from the monitor for HVE-14. The inspector reviewed documentation that indicated a plant modification to prevent isolation of HVE-14 was complete.

(Closed) IFI (83-17-01) - This item concerned the need to provide administrative controls to prevent cross contamination of the service air system and controls for personnel using the system for breathing air. The licensee determined that additional administrative controls were not required.

11. IE Information Notices

The inspector determined that IE Notice 84-24 had been reviewed and evaluated by the appropriate licensee personnel.