



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

Report No. 50-261/79-14

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

Facility Name: H. B. Robinson Unit 2

Docket No. 50-261

License No. DPR-23

Inspection at H. B. Robinson site near Hartsville, South Carolina

Inspector: G. L. Jenkins 7/19/79  
for G. L. Troup Date Signed

Approved by: G. R. Jenkins 7/19/79  
G. R. Jenkins, Acting Section Chief, FFMS Date Signed  
Branch

#### SUMMARY

Date of Inspection June 25-29, 1979

#### Areas Inspected

This routine, unannounced inspection involved 36 inspector-hours onsite in the areas of respiratory protection, radiological surveys, changes to radiation protection procedures, notification and reports, external exposure control, posting and control and previously identified items of noncompliance, unresolved items, and open items.

#### Results

Of the seven areas inspected, no apparent items of noncompliance or deviations were identified in four areas; three apparent items of noncompliance were found in three areas (failure to follow radiation protection procedures (79-14-01); respiratory protection program requirements (79-14-02); failure to post notices per 10 CFR 19.11 (79-14-03). No apparent deviations were found.

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## DETAILS

### 1. Persons Contacted

#### Licensee Employees

R. B. Starkey, Jr., Plant Manager  
\*D. S. Crocker, E&RC Supervisor  
H. S. Zimmerman, Maintenance Supervisor  
\*W. T. Traylor, Administrative Supervisor  
\*W. Garrison, QA Supervisor  
D. R. Gainey, Jr., RC&T Foreman  
J. A. Eaddy, RC&T Foreman  
W. L. McCready, Engineer

Other licensee employees contacted included six RC&T technicians.

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on June 29, 1979 with those persons indicated in Paragraph 1 above. The inspector stated that the item of noncompliance regarding failure to follow radiation protection procedures (79-14-01) would not require a response based on the corrective actions already taken. Mr. Traylor and Mr. Crocker acknowledged the item of noncompliance concerning the respiratory protection program. Regarding the item of noncompliance on posting per 10 CFR 19.11, Mr. Crocker stated that the required notice had been posted in two locations and that permanent mounting of the notices was to be pursued.

### 3. Licensee Action on Previous Inspection Findings

(Closed) Infraction (79-05-01) RC&T Technician Qualifications. The licensee has changed the manning schedule so that at least one technician who meets the qualifications of ANSI N18.1 is assigned to backshifts, in accordance with the CP&L letter of April 14, 1979. The inspector had no further questions.

(Closed) Unresolved Item (79-05-03) Possible CV Entry Without RWP. It was determined that two individuals entered the CV without signing in on the RWP. The unresolved item is closed for record purposes as this has been elevated to an item of noncompliance.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Use of Radiation Work Permits

- a. In RII Report No. 50-261/79-5, Unresolved Item 79-05-03 was identified concerning possible entries into the Containment Vessel (CV) without a valid radiation work permit (RWP) or with the wrong RWP. The inspector discussed this item with the cognizant supervisor and reviewed the licensee's evaluation contained in a memorandum to files of April 18, 1979.

The licensee determined that on February 21 and 22, individuals entered the CV without signing in on a valid RWP and that other individuals had signed in on the RWP for locked high radiation areas rather than on the RWP for CV entry.

- b. Plant procedures HP-7, "Special Radiation Work Permits" required an RWP for entry into a locked high radiation and that the name of each individual involved shall be entered on the RWP. The inspector informed licensee management that since the two individuals entered the CV, which was a locked high radiation area, without entering their names on the RWP, this was an item of noncompliance (79-14-01) and that Unresolved Item 79-05-03 was closed for record purposes.
- c. A licensee representative reviewed the corrective actions taken on this matter with the inspector, including the revision procedure HP-7 to require a specific RWP for CV entry and discussions with the individuals. During the inspection, the cognizant supervisor discussed this case with employees at a routinely scheduled safety meeting. Based on the corrective actions taken by the licensee, the inspector stated that corrective action appeared to be complete, that the noncompliance was closed for record purposes and that no written response would be required on this item. This was acknowledged by the cognizant supervisor and the acting plant manager.

6. Respiratory Protection Program

- a. 10 CFR 20.103(c) requires that when respiratory protective equipment is used to limit the inhalation of airborne radioactive material, the licensee may make allowance for such use if the equipment is used as stipulated in Regulatory Guide 8.15, "Acceptable Programs for Respiratory Protection." Section C.4 of Reg. Guide 8.15 lists the minimum requirements for a respiratory protection program, which includes:
  - (1) written procedures to ensure the adequate individual fitting of respirators
  - (2) written procedures for control, issue and return of respirators
  - (3) prior determination of medical status of the individuals

More detailed instructions on implementing the respiratory protection program are referenced in NUREG-0041." Manual of Respiratory Protection Against Airborne Radioactive Materials." Plant Procedure HP-6, "Respirator (sic) Protection" specifies the implementation of the plant program.

- b. The inspector discussed the respiratory protection program with licensee representatives and reviewed the implementation of the program. Areas reviewed included respirator fitting using a challenge atmosphere, medical clearances, qualification records, respirator issue and return logs, respirator decontamination and survey records and respirator storage. Two problem areas identified were: (1) the issue and return log did not have the RWP for the job entered in the log for several issuances and (2) no entries for return of respirators had been made since April. A licensee representative acknowledged that the RWP number should be entered each time that a respirator is issued. Each respirator had been marked with an identifying number but the markings were removed during cleaning/decontamination; a licensee representative stated that a permanent identification method was being investigated. This will permit verification of issue and return.
- c. The inspector noted that procedure HP-6 does not address many of the requirements specified in Reg. Guide 8.15 although the program does implement them. For instances, HP-6 does not address using a challenge atmosphere for respirator fitting although the practice is to use stannic chloride smoke in a fitting booth. The procedure does not address the issue and return of respirators although a control log has been established. Respirator qualification cards have been established for individuals; however, the procedures does not address how these are to be maintained or used. The inspector stated that as procedure HP-6 does not meet the requirements of Reg. Guide 8.15, this was an item of noncompliance under 10 CFR 20.103(c) (79-14-02).

## 7. External Exposure Control

The inspector reviewed the licensee's program for external exposure control, including review of exposure records, observation of control practices and discussions with licensee personnel. Specific areas reviewed were:

- (a) personnel monitoring requirements of 10 CFR 20.102a
- (b) permissible doses of 10 CFR 20.101a
- (c) extended permissible doese of 10 CFR 20.101b
- (d) exposure history requirements of 10 CFR 20.102
- (e) exposure records of 10 CFR 20.401a

The inspector reviewed exposure history files for both licensee employees and temporary personnel and verified that exposure histories and authorizations were on file for personnel who were authorized to receive extended doses and that exposure records were being maintained. The inspector had no further questions.

8. Anti-Contamination Clothing

Anti-contamination clothing (anti-C's) is being worn by plant personnel and temporary workers for entry into the containment and other contamination control areas. Laundering of the clothing is being performed by a contractor. Section 5.7 of the Health Physics Manual specifies the radiation limits of 0.5 mR/hr on the clothing or 1 mR/hr for bundled clothing for the laundered clothing. During the inspection the inspector surveyed and had licensee representatives survey in his presence, anti-C's which had been selected at random from the storage racks for clothing ready to issue. All anti-C's surveyed were within the licensee's limits for wear. The inspector also discussed the surveys performed on laundered clothing with licensee representatives; the inspector had no further questions.

9. Posting, Labeling and Control

- a. The inspector observed the licensee's practices for posting, labeling and control. Specific areas inspected were: (1) posting of radiation areas per 10 CFR 20.203.b, (2) posting of high radiation area per 10 CFR 20.203c and control of high radiation areas per Technical Specifications Section 6.12.1, (3) posting of radioactive materials area per 10 CFR 20.202.e, and (4) container labeling requirements of 10 CFR 20.203.f. During plant tours, the inspector also took radiation dose rate measurements to verify that areas were posted and controlled as required. No discrepancies in posting or control were noted. The inspector had no further questions.
- b. 10 CFR 19.11 requires the posting of Form NRC-3 and various documents or a notice stating where the documents may be examined. Such documents "shall appear in a sufficient number of places to permit individuals engaged in licensed activities to observe them on the way to or from any particular licensed activity location...". The inspector observed that Form NRC-3 was posted in two locations on the way into the restricted area but did not observe either the documents or notices posted, as required. A licensee representative stated that the notices had been posted but were removed by persons unknown. The cognizant supervisor had copies of the notice posted and stated that action would be taken to post the notices in a permanent manner. The inspector stated that this was a deficiency for failure to have the notice posted [79-14-03].

10. Surveys

- a. Operating License DPR-23 authorizes the licensee to possess radioactive sources in accordance with 10 CFR 30, 40 and 70. Authorized

isotopes, quantities and forms are specified in the license, as amended. Procedure HP-4, "Source Accountability" specifies the requirements for source inventory and leak testing.

The inspector reviewed the source logbook and verified that the inventory of radioisotopes was in accordance with the license and that the sources had been inventoried and leak tested monthly during calendar year 1979, as required by HP-4. The inspector had no further questions.

- b. In RII Report No. 50-261/79-5, paragraph 10, surveys of areas outside of the Unit 2 restricted area were discussed. This included documentation of surveys being made and initiation of other surveys. The inspector reviewed revision 4 to procedure HP-1, "Area Radiation Surveys" and noted that weekly or monthly surveys of areas outside of the restricted area had been added to the periodic survey sheet. The inspector had no further questions.
- c. The inspector reviewed the radiation and contamination survey records for the month of May, 1979 and determined that the surveys had been made and documented in accordance with procedures HP-4 and HP-5. The inspector had no further questions.

#### 11. Changes to Radiation Procedures

Technical Specification 6.11 specifies that radiation protection procedures shall be prepared consistent with the requirements of 10 CFR 20. Technical Specification 6.8. specifies the requirements for the review and approval of procedures. The inspector reviewed the changes made to nine radiation protection procedures during calendar year 1979 and verified that the contents of the changes were consistent with 10 CFR 20 and the Technical Specifications and that they had been approved as required by the Technical Specifications. The inspector had no further questions.

#### 12. Notifications and Reports

- a. 10 CFR 20.402 et seq specify the requirements for special reports to the NRC and specify the time frame for making such reports. The inspector reviewed plant radioactive material records and personnel exposure records for calendar year 1979 and discussed the reporting requirements with licensee representatives to determine if notifications and reports were submitted in accordance with the following requirements:

- (1) 10 CFR 20.402 - loss or theft of radioactive materials
- (2) 10 CFR 20.403 - incidents
- (3) 10 CFR 20.405 - overexposures

Based on this review, the inspector determined that no notifications or reports had been required. No items of noncompliance or deviations were identified.

- b. 10 CFR 20.408 and 10 CFR 19.13 require that reports of personnel exposure be submitted to the NRC and to the individual, respectively, upon termination of employment or work assignment. The inspector reviewed the dosimetry records for ten individuals who had terminated their work assignment during the period of January 1-May 1, 1979 and determined that the reports had been submitted within the required time period. The inspector had no further questions.
- c. Technical Specification 6.9.1.b requires that the licensee submit a report of exposure received by work and job function. 10 CFR 20.407 requires that the licensee submit a personnel monitoring report, including a statistical summary report, for the previous calendar year. These reports are contained in the 1978 Annual Operating Report which was submitted by CP&L letter serial: GD-79-524 of March 1, 1979. The inspector had no further questions.

13. Other Areas Inspected

- a. Open Item 78-23-05 Plant Modification to Barricade Area Near the Fuel Transfer Tube.

The inspector observed that the barricade and gate have been installed. However, a gap exists between the gate post and wall so that an individual could reach through and open the gate without the key. Also, the locking mechanism was not working properly so that an individual inside the barricade could not exit the area. These items were discussed with licensee representatives who stated that corrective action would be taken. This item remains open.

- b. Open Item 79-05-02 Efficiency Factors for Portal Monitors and Hand and Foot Counters.

The inspector reviewed a memo to file 2-0-6-a dated June 13, 1979 which contained a discussion of the test procedure and results for the efficiency factors. The inspector had no further questions. This item is closed.