

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

NOV 1 6 1982

Report No. 50-261/82-38

Licensee: Carolina Power and Light Company

Facility Name: H. B. Robinson Unit 2

Docket No. 50-261

License No. DPR-23

Inspection at plant site near Hartsville, South Carolina

Inspector: Cunningham aluna Male

Approved by: D. M. Montgomery, Section Chief Independent Measurement and Environmental Protection Section

Division of Emergency Preparedness and Operational Support

Date Signed

Date Signed

SUMMARY

Inspection on November 3-5, 1982

Areas Inspected

This routine, unannounced inspection involved 23 inspector-hours on site in the areas of radiological environmental monitoring including management and administrative controls; implementation of monitoring program; analytical quality control; review of Interlaboratory Comparsion Program; status review of licensee and NRC co-located TLDs for direct radiation monitoring.

Results

Of the five areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *S. Crocker, Manager, Environmental and Radiation Control
- *J. A. Eaddy, Jr., Environmental and Radiation Control Supervisor
- *C. Wright, Regulatory Compliance Specialist
- *F. Watkins, Environmental/Chemistry Foreman
- *D. Baur, Project QA/QC Specialist

Other licensee employees contacted included two technicians.

NRC Resident Inspector

*S. P. Weise

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 5, 1982, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

No inspection findings were identified during the previous radiological environmental inspection.

4. Unresolved Items

Unresolved items were not identified during this inspection.

- 5. Implementation of Radiological Environmental Monitoring Program.
 - a. Technical Spectication 4.10, Table 4.10-1, defines the radiological environmental monitoring program requirements. The inspector conducted a detailed review of the radiological environmental monitoring program to verify implementation thereof, and to assess compliance with the program requirements defined in the subject Specification. The review included the following: (1) inspection of monitoring and sampling stations including the availability, maintenance, and calibration of monitoring and sampling equipment; (2) review of the Annual Radiological Environmental Monitoring Report for the period ending December 31, 1981, with emphasis on identification of missing data, obvious mistakes and anomalous measurements, observed trends or biases in the data presented, and implementation of corrective action for anomalous results identified; (3) written procedures for assuring implementation of each program parameter; (4) review of sample collection data compiled

during August 1, 1981 to present; (5) review of radiochemical analytical results compiled for environmental samples collected during August 1, 1981, through September 30, 1982.

b. Inspection of monitoring and sampling stations listed in Table 4.10-1 of the referenced Specification included the following: (1) all air particulate and associated radioiodine monitors, soil, and TLD monitoring stations; (2) surface water sampling stations; (3) selected monthly and quarterly (Emergency TLDs) radiation dosimeters; (4) milk sampling stations. Inspection disclosed that all air particulate monitoring equipment was calibrated at six month intervals and appropriately tagged with calibration stickers. Inspection also disclosed that an adequate supply of air particulate monitoring replacement parts and equipment were available to minimize interruptions of required continuous monitoring. The location of all monitoring and sampling stations listed above coincided with those locations cited in the referenced Specification and the respective monitoring and sampling procedures. There were no questions regarding this item.

c. Inspection included a review of the Annual Radiological Environmental Monitoring Report for the period ending December 31, 1981, and monthly radiological environmental sampling and analysis summaries compiled during January 1, 1982 through September 30, 1982. Each report included a listing of missing samples and the respective reasons therefor, and a summary of analytical quality control. Inspection also included review of semiannual Radioactive Effluent Release Reports required by Appendix B of Facility Technical Specifications for the periods ending July 30, 1981, December 31, 1981, and July 30, 1982. Inspection disclosed that the subject reports were consistent with the requirements with respect to sampling locations, monitoring and surveillance frequencies, and the interpretation and evaluation of results. There were no questions regarding this item.

d. Technical Specification 6.8.1 requires the establishment of written procedures and administrative policies to assure implementation of all conditions and commitments defined in the Specifications. Inspection included a review of radiological environmental monitoring program procedure revisions implemented subsequent to the previous inspection (IE Inspection Report No. 50-261/81-18). Inspection disclosed that Environmental Surveillance Procedure ES-1 was revised to include deployment and retrieval of licensee emergency TLD's as per licensee Emergency Response Map-Plume Exposure Pathway EPZ, drawing No. CPL-9-HBR-2-7361 and Attachment B to the subject procedure (Rev. 8, 6/19/82). The procedure has been reviewed and approved as required. There were no questions regarding this item.

6. Management Controls

a. Section 6 of the Facility Technical Specifications defines management and administrative controls required to assure implementation of Technical Specifications. Inspection included a review of management controls and specific discussions with cognizant licensee representatives regarding the radiological environmental monitoring program defined in Technical Specification 4.10, Table 4.10-1. The following items were reviewed: (1) organizational and management responsibility for assuring implementation of the monitoring program; (2) responsibility assigned for sample collection, operation and maintenance of sampling equipment and monitoring stations; (3) qualifications for individuals managing the program. Inspection disclosed that organizational and individual responsibility for assuring program implementation was consistent with the referenced Specification requirements. There were no questions regarding this item.

b. Technical Specification 6.5.3.2.d.(1) requires an audit, at least once per year, of the conformance of facility operation to all provisions defined in the Technical Specifications and applicable license conditions. Inspection included a detailed review of audits (and respective checklists) of the radiological environmental program defined in Technical Specification 4.10 conducted during 1981 and 1982. Review of Audit Reports QAA/20-24/25 (1981) and QAA/20-30(1982) disclosed that no findings regarding the subject monitoring program were identified. Inspection further disclosed that the audits were consistent with the requirements of Technical Specification 6.5.4. The inspector had no questions regarding this item.

7. Analytical Quality Control

Radiochemical analysis of all environmental samples are conducted at the licensee's central corporate laboratory (Shearon Harris Energy and Environmental Center, New Hill, North Carolina). A detailed review of radioanalytical quality assurance and quality control programs was the subject of an inspection of the laboratory conducted as part of the Brunswick Steam Electric Plant radiological environmental inspection (IE Inspection Report Nos. 50-324/81-09 and 50-325/81-09). The referenced inspection disclosed that both an intralaboratory and interlaboratory analytical quality control program is routinely maintained. The subject program includes the following: (1) duplicate sample analyses; (2) periodic distribution of split samples for analysis within the laboratories of CP&L and the States of North Carolina and South Carolina. (3) participation in the EPA cross-check program. The quality control program is consistent with the guidance promulgated in Regulatory Guide 4.15 (Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment). The interlaboratory comparison program involving the licensee and the State of South Carolina is discussed in paragraph 9.

8. NRC TLD Direct Radiation Monitoring Network

Inspection included review and verification of locations of co-located NRC/HBR TLDs deployed under the NRC TLD Direct Radiation Monitoring Network Program. Seven randomly selected NRC TLD station locations were also included. Colocated TLDs were cited as Stations 6, 10, 13, 21 and 36. Inspection confirmed that at all stations so designated, both NRC and

licensee TLDs were present. Inspection also verified that NRC TLDs were deployed at Stations 2, 5, 24, 27, 30, 31, 23 as indicated in the network deployment scheme. The locations of all TLDs inspected were consistent with the locations designated in the subject program.

9. Interlaboratory Comparsion Program

Inspection included a detailed review of the 1981 Annual Report of Data (January 1, 1981 to December 31, 1981) for the environmental surveillance of radioactivity and radiation levels within the H. B. Robinson plant facility environs conducted by the Bureau of Radiological Health of the South Carolina Department of Health and Environmental Control (DHEC) under NRC Contract No. NRC-05-80-273. All analyses of samples collected by or assigned to the State were performed by the Division of Radiological Environmental Monitoring and Surveillance Laboratory. The interlaboratory analytical comparative program with the licensee included split and/or, duplicate sample analyses for gross alpha, gross beta, total gamma dose (TLDs), and isotor ic analyses (H-3, Sr-89, Sr-90, and gamma emitters) of air, surface water iilk, fish, vegetables, and fruit. Review of the subject report disclos the following: (1) isotopic analyses reported by the State and the licensee for the specific media and sampling parameters cited above were in close agreement. (2) gross alpha and gross beta results for the subject parameters, similarly, were consistent. Radioactivity concentrations detected in the environment were significantly below action levels assigned by the licensee and the applicable limits specified in 10 CFR 20. The licensee reviewed the above cited report and submitted to the State (letter dated October 15, 1982) comments addressing the accuracy and completeness thereof. A few minor errors pertaining to the H. B. Robinson Environmental Surveillance results were identified. The corrected values further enhanced the degree of agreement. There were no questions regarding this item.

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