



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

Report No. 50-261/80-03

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

Facility Name: H. B. Robinson

License No. DPR-23

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

Inspectors:	<u>J. R. Wray</u>	<u>2/26/80</u>
	J. R. Wray	Date Signed
	<u>J. M. Puckett</u>	<u>2/26/80</u>
	J. M. Puckett	Date Signed
Approved by:	<u>A. F. Gibson</u>	<u>2/26/80</u>
	A. F. Gibson, Section Chief, FF&MS Branch	Date Signed

SUMMARY

Inspection on February 4-6, 1980

Areas Inspected

This routine, unannounced inspection involved 34 inspector-hours onsite in the areas of radiation protection including general employee training and posting, labeling and control of radioactive materials; review of licensee action on IE Bulletin 79-19; and followup on previously identified items.

Results

Of the 4 areas inspected, no items of noncompliance or deviations were identified in 2 areas; 2 items of noncompliance were found in 2 areas (Deficiency - failure to properly label containers of radioactive material Paragraph 6; Infraction - failure to follow procedures - paragraph 7).

DETAILS

1. Persons Contacted

Licensee Employees

- *H. B. Starkey, Jr., General Manager
H. S. Zimmerman, Manager - T&A
- *C. W. Crawford, Manager - O&M
- *F. L. Lowery, Operations Supervisor - Unit #2
- *B. W. Garrison, QA Supervisor
- *D. S. Crocker, E&RC Supervisor
- *C. A. Bethea, Training Supervisor
W. T. Richie, R&CT Foreman
R. Denney, R&CT Foreman

Other licensee employees contacted included 7 technicians, 2 operators, 4 security force members, and 2 office personnel.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on February 6, 1980, with those persons indicated in Paragraph 1 above. The General Manager acknowledged the items of noncompliance. With regard to review of resin liners prior to shipment to the Barnwell Waste Disposal Site, management stated that no shipments of resin liners would leave the station prior to obtaining further information from the liner's manufacturer to assure site personnel the free standing water criteria of the Chem-Nuclear Systems, Incorporated (CNSI) Burial License are met. The inspectors emphasized the need for individual labeling of containers containing licensed quantities of radioactive material with sufficient information to ensure workers are adequately informed of the hazards associated with each package, container, or area containing contaminated material.

3. Licensee Action on Previous Inspection Findings

(Closed) Infraction (79-14-02) Inadequate Respiratory Protection Procedures. Health Physics Procedure 6, "Respiratory Protection", was completely revised September 1979. An inspector reviewed the revised procedure and found it to adequately implement the requirements of 10 CFR 20.103 and the relevant amplification in Regulatory Guide 8.15 and NUREG 0041.

(Closed) Infraction (79-22-01) Inadequate Radwaste Operating Procedure. Health Physics Procedure 33, "Drumming of Evaporator Bottoms, Compacting Trash and Dewatering of Spent Resins" was revised December 1979. An inspector reviewed the revised procedure and determined it adequately addressed the operations of the present waste solidification system and the requirements of IE Bulletin 79-19.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. General Employee Training

a. An inspector reviewed the general employee training program by participating in the badging process. Training material inspected included video tapes on general health physics, site security and respiratory protection. The inspector confirmed the recent revision of the general health physics tape as mentioned in report 79-5 incorporated comments by an inspector concerning:

- (1) maintaining exposures as low as reasonably achievable
- (2) tool/equipment contamination control
- (3) items required by 10 CFR 19.12.

b. Written examinations were administered following each tape. An additional examination was taken by the inspector in order to qualify as an escort. In preparation for the escort qualification examination, the inspector reviewed those instructions and procedures called for by site instruction TI-302. No items of noncompliance or deviations were identified in this area.

6. Posting, Labeling and Control of Radioactive Materials

a. The inspectors toured portions of the protected area each day of the inspection, accompanied by licensee representatives on each occasion. During these tours the inspectors noted several examples of failure to adequately label containers of licensed radioactive material as required by 10 CFR 20.203(f).

- (1) Contaminated items and equipment were stored in the contaminated warehouse. The building was posted as an RWP required area and the results of radiation surveys performed on the items in the building were displayed at its entrance. Dose rates on packages greater than 100 millirems per hour were not uncommon; in particular, a vacuum cleaner read 1000 millirems per hour. Considering the high dose rates, a licensee representative agreed with the inspectors that most individual items contained greater than 10 CFR 20 Appendix C quantities of radioactive materials.
- (2) A collection of more than 40 55-gallon drums were stored outside the boron injection tank room away from normal plant traffic. The inspectors were informed that they contained laundry too hot for normal use but would be used in future hot jobs such as steam generator jumps. Identification of the actual contents of each drum was sporadic. Most drums were labeled with only a dose rate

reading at twelve inches. Only two containers displayed, in addition, a label saying "Contaminated Material". At the request of an inspector, a survey was performed on one drum; a reading of 7 millirems per hour at twelve inches was obtained. Most recorded readings were in the 5 to 10 millirem per hour range. A licensee representative agreed with the inspector that such dose rates constituted quantities of radioactive material in excess of 10 CFR 20 Appendix C.

- b. 10 CFR 20.203(f) requires each container with greater than Appendix C quantities of radioactive material bear a tag with the radiation caution symbol and the words: "Caution or Danger, Radioactive Material". The inspectors emphasized during the plant tours and at the exit interview that information must be supplied on each container of licensed material incorporating as appropriate the items listed in footnote 2 to 10 CFR 20.203(f) as a minimum. The purpose of these requirements is to ensure workers are adequately informed of the hazards associated with each package, container, or area containing contaminated material. The inspector stated that failure to label radioactive materials as described above was in noncompliance with 10 CFR 20.203(f). (261/80-03-01)

7. Bulletin 79-19

- a. An inspector reviewed CP&L's revised response to the bulletin dated December 4, 1979, and made the following observations:
 - (1) Copies of applicable DOT and NRC regulations were being maintained at the plant by the Environmental and Radiation Control Group, Health Physics Unit. Copies of Chem-Nuclear Systems, Inc. (CNSI) burial license 097 (Admendment No. 26) as well as the Barnwell Site Disposal Criteria were also maintained by the health physics staff.
 - (2) Radiation Protection Manual, Volume 8, and HP Procedure 20 had been revised and contain sufficient procedural controls to implement the requirements of CNSI License 097 and the Barnwell Site Disposal Criteria.
 - (3) Training in shipment requirements and waste handling operations of applicable employees was conducted prior to December 15, 1979. A retraining program had been established and was to be implemented in the future.
 - (4) A management-controlled audit as required was completed within the specified time period.
- b. An inspector requested a 55-gallon drum of cement-solidified evaporator bottoms be opened and its contents examined. The drum (number EB 7-3) was reading 6 millirems per hour on the top and 20 millirems per hour on the sides and bottom. The drum was chosen at random from a number

of drums outside the auxiliary building waiting for shipment. No free standing liquid was observed. The remains of a hole in the center of the powdered contents made by a standpipe used to detect free standing liquid on the bottom of the drum was clearly visible. At the request of an inspector, the drum was placed on its side and no liquids were observed. The inspectors had no further questions concerning packaging of solidified waste.

- c. On February 5, an inspector requested a metal box (4' x 4' x 6') labeled Low Specific Activity (LSA) and secured for shipment with metal bands be opened for examination. The contents included yellow poly bags of trash, a dry oil drip pan, a conventional plastic 12-volt battery approximately twenty percent filled with liquid, and assorted other LSA material.

The inspector asked the accompanying licensee representatives as to the contents of the battery. No one had been aware that the LSA container readied for shipment to the Barnwell Waste Disposal Site contained the battery. No prior analysis was performed to determine the nature of the battery's contents. Subsequent analysis revealed that the battery contained 500 milliliters of sulfuric acid. No prior evaluation of chemical versus radiological hazard for this waste shipment had been performed.

- d. Technical Specification 6.11 states that procedures will be prepared, maintained and adhered to for all operations involving personnel radiation exposure. Health Physics Procedure 20 requires compliance with the CNSI burial license 097 (Amendment 26) prior to offsite shipping. Condition 29 of this license states that waste containing both toxic chemicals and radioactive materials shall require an independent evaluation of both hazards. The inspector informed the licensee that failure to perform an evaluation of the hazard associated with the sulfuric acid found as described above constituted an item of noncompliance with Technical Specification 6.11. (261/80-03-02)
- e. The inspectors discussed with health physics personnel the requirement contained in the South Carolina waste disposal license for "no free-standing water" in dewatered resin liners. The licensee representatives stated they could not positively ascertain that there was no more than one percent water remaining in the shipping liners because the constructor and vendor of the cask liners, Chem-Nuclear Systems, Inc., would not reveal container design specifications since this information was considered to be proprietary. The dewatering procedure used by the licensee was also a Chem-Nuclear procedure and its adequacy to assure free water limits are met was questioned by personnel from the Health Physics Department.
- f. An inspector informed licensee representatives that they must have assurance that adequate dewatering had been accomplished prior to the shipment of dewatered resin liners for burial. The inspectors also asked the General Manager for a commitment to not ship dewatered resins until health physics personnel were satisfied burial license.

requirements could be positively met. The plant manager stated that no dewatered resins will be shipped until confirmation from Chem-Nuclear is obtained in writing that the free standing water criteria for dewatered resin liners are met. The inspectors had no further questions or comments in this area.