



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

Report No. 50-261/79-22

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

Docket No. 50-261

License No. DPR-23

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

Inspector: G. R. Jenkins *G. R. Jenkins* 10/18/79
G. R. Jenkins Date Signed

Accompanying Personnel: J. R. Epperson

Approved by: A. F. Gibson *A. F. Gibson* 10/18/79
A. F. Gibson, Section Chief, FFMS Branch Date Signed

SUMMARY

Inspection on September 25-28, 1979

Areas Inspected

This routine, unannounced inspection involved 28 inspector-hours onsite in the areas of radioactive effluent releases, effluent records and reports, effluent control procedures, solid radwaste, followup on noncompliance and inspector identified items, and followup on IE Bulletins, Circulars, and Information Notices.

Results

Of the six areas inspected, no apparent items of noncompliance or deviations were identified in five areas; one apparent item of noncompliance was found in one area [Infraction: Inadequate radwaste operating procedures (79-22-01)]. No apparent deviations were found.

7912030 083

DETAILS

1. Persons Contacted

Licensee Employees

- *R. B. Starkey, Plant Manager
- *D. S. Crocker, E&RC Supervisor
- *W. L. MacCready, Engineer, E&RC
- J. A. Eaddy, Senior Generation Specialist, E&RC
- W. T. Ritchie, RC&T Foreman
- J. Sawyer, Engineering Technician

Other licensee employees contacted included one operator.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 28, 1979 with those persons indicated in Paragraph 1 above. With regard to the item of noncompliance, the Plant Manager acknowledged the requirement for written procedures for all radwaste activities, and stated that the development and upgrading of such procedures would receive prompt attention.

3. Licensee Action on Previous Inspection Findings

(Closed) (78-23-05) Open Item: Plant modification to preclude access to high radiation area during fuel transfer. Based on a discussion with the E&RC Supervisor, an inspector determined that a panel had been installed to prevent opening the gate by reaching through from outside, and the locking mechanism was now working properly. The inspector had no further questions.

(Closed) (78-28-02) Open Item: Implementing instructions for effluents. A new set of procedures has been developed. This item is closed. (Details, paragraph 5)

(Closed) 79-01-01) Open Item: Radiation monitor correlation program. P.T. 29.1, "Radiation Monitor Correlation Program", was approved April 20, 1979. This item is closed. (Details, paragraph 12)

(Closed) (79-01-02) Open Item: Liquid effluent monitor setpoints. Standing Order No. 4, "Radiation Monitor Setpoints", has been revised to reduce RMS-18 setpoint to a minimum value when no release is in progress. The inspector has no further questions.

(Closed) (79-14-03) Deficiency: 10 CFR 19 notice not posted. An inspector observed that the notices were mounted in more permanent fixtures, as stated in CP&L's response of August 22, 1979, and had no further questions.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Effluent Release Procedures

The licensee has expanded and combined various Health Physics and Environmental Surveillance Procedures into a new set of Environmental Surveillance (ES) procedures related to effluent release and accountability, as follows:

ES-2: "Effluent and Waste Disposal Report"

ES-3: "Liquid Waste Release"

ES-4 "Gaseous Effluent Accountability"

Although these procedures had not been reviewed by PNSC nor approved by the Plant Manager at the time of this inspection, the inspector's preliminary review indicated that the procedures adequately address sampling, analysis, approval, documentation, and accountability associated with effluent releases. The inspector offered some comments for improvement of the procedures which were acknowledged by the E&RC Supervisor. The inspector also reviewed recent changes to Operating Procedure OP-35, "Waste Disposal-Gas", and had no questions.

6. Radioactive Effluent Releases - Liquid

- a. Based on a review of all liquid waste release permits (LWRP) for January and February 1979, a spot check of other LWRP's from March through June 1979, and selected tests of data consistency between composite analysis results, monthly summary reports, and Semi-Annual Effluent Reports, an inspector determined that no liquid releases had exceeded the limits of Technical Specification 3.9.1 over the period July 1978 through June 1979.
- b. The January and February LWRP's were checked in detail for calculational errors and for proper review and approval in accordance with plant procedures. Three uncorrected errors were identified on the LWRP's checked. Many potential errors had been prevented by the licensee's internal review and check program. Two LWRP's were found without the RC&T Foreman's approval as required by procedure. None of the mistakes identified appeared to have a significant impact on the total activity released or technical specification adherence. The inspector stated that much progress had been made in reduction of errors through the internal checks, but that continued emphasis on attention to detail would be required. Licensee management acknowledged the inspector's comment.
- c. During discussions of processing and release of liquid radwaste, a licensee representative said that the waste evaporator was now operating at a capacity of about 4 gpm compared with the previous capacity of 11-12 gpm. This reduction resulted from recent coating of the evaporator tubes with insulation material used in the major plant modification

for fire prevention/control. The insulation material was inadvertently introduced into the radwaste system by contract workers washing out buckets in decontamination sinks.

7 . Radioactive Effluent Releases - Gaseous

- a. Based on the review of Semi-Annual Effluent Reports for last half, 1978, and first half, 1979; gaseous waste release permits (GWRP) for January-June 1979; and selected tests of data consistency between monthly summary reports and Semi-Annual Effluent Reports, an inspector determined that no gaseous releases had exceeded the limits of Technical Specification 3.9.2 over the period July 1978 through June 1979.
- b. Detailed checks were made of 36 out of a total of 127 GWRP's for the first six months of 1979. All required reviews and approvals appeared to be in order. Two uncorrected errors were identified on the GWRP's reviewed; neither appeared to have a significant impact on the net results. The inspector's comments on attention to detail, discussed in paragraph 6.b, were applied to GWRP's as well.
- c. The second half, 1978 Semi-Annual Effluent Report identified an abnormal gaseous release which occurred October 26, 1978. An inspector discussed the event with licensee representatives and reviewed POE: 78-2. The event involved the release of containment air through the purge inlet valves due to an error by an operator in training. A GWRP had been prepared and approved for a containment pressure relief. The total release time through the purge inlet valves was about 30 seconds before it was manually stopped by the licensed operator. A GWRP was completed after the release for accountability purposes. Based on a review of the data, an inspector concluded that no technical specification release limits were exceeded.

8. Records and Reports of Radioactive Effluents

- a. Semi-Annual Effluent Reports for July - December 1978, and January-June 1979, were reviewed for mistakes, anomalous results, trends, etc. No problems were identified.
- b. Based on reviews of waste release permits, monthly summary reports, and composite analyses results, the inspector had no questions regarding the adequate maintenance of effluent records.

9. Solid Radioactive Waste

- a. An inspector reviewed solid waste processing operations by discussions with licensee representatives and during a plant tour. The plant's originally installed equipment for solidification of spent resin and evaporator bottoms never operated satisfactorily. The method currently used for disposal of spent resin involves sluicing the resin to a

contractor supplied cask outside the auxiliary building, dewatering, and shipping to a licensed burial facility. The method used for disposal of evaporator concentrates (bottoms) involves pumping the slurry to the waste drumming room and manually mixing the slurry with cement into 55-gallon drums; the drums are subsequently shipped by truck for burial. The inspector reviewed Operating Procedure OP-36, "Drumming Station". This procedure, last revised in 1974, provides operating instructions for the originally installed solidification system, with an added section (1973) on manual evaporator concentrate drumming. Since the procedure has not been revised since the installation of a new, larger waste evaporator in about December 1977, all references to the waste evaporator feed tank piping and valve lineups are apparently obsolete. There is no approved procedure for the connection, filling, dewatering, or precautionary measures needed for the transfer and packaging of spent resin. The inspector identified the lack of management approved procedures for these important radwaste evolutions associated with evaporator bottoms and spent resin as noncompliance with Technical Specification 6.8.1. (79-22-01) The inspector also noted that both IE Information Notice 79-09, March 30, 1979, and IE Bulletin 79-19, August 10, 1979, addressed the need for management approved procedures and instructions for radwaste related activities. Licensee management acknowledged the inspector's comments and stated that prompt attention would be given to the required procedures.

- b. IE Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial"

An inspector reviewed CP&L's response, dated September 21, 1979, to this Bulletin and had the following comments:

- (1) The response stated that the official copies of DOT and NRC regulations and the waste burial facility license are maintained by the Health Physics Unit at the Harris Energy and Environmental Center. The inspector stated that these documents should be available at the plant because this is the origination point for shipments that are prepared by plant personnel. The Plant Manager concurred and stated that copies of the documents will be maintained at the plant.
- (2) The response stated: "We currently have management-approved, detailed instructions and operating procedures to be used by all personnel involved in the transfer, packaging, and transport of low-level radioactive materials." As discussed in paragraph 9.a. above, significant transfer and packaging operations are being conducted without such procedures. Region II's concern with this discrepancy is addressed in the letter transmitting this inspection report.
- (3) The actions discussed in the response pertaining to training and audits will be reviewed during a later inspection. (79-22-02)

10. IE Information Notices

a. IN 79-07, "Rupture of Radwaste Tanks"

The licensee's evaluation indicated that the radwaste concentrates holding tank has an atmospheric pressure rating (hydro-tested at 25 psig) and is heated to prevent the crystallization of waste concentrates. The evaluation stated that there is no inspection program for the tank or its piping, but that any pressurization of the tank would be thoroughly reviewed before being implemented. The inspector had no further questions.

b. IN 79-08, "Interconnection of Contaminated Systems with Service Air Systems Used as the Source of Breathing Air"

H.B. Robinson Plant uses instrument air, rather than service air, for air supplied breathing apparatus. Instrument air is used to operate diaphragm type valves in the CVCS and radwaste systems. An engineering review concluded that a double failure of both a valve diaphragm and air regulator would be required to permit contamination of the instrument air. Weekly sampling of the instrument air for radioactivity has been incorporated into procedure HP-1. The inspector had no further questions.

c. IN 79-09, "Spill of Radioactively Contaminated Resin"

An inspector reviewed the licensee's written evaluation and discussed the resin transfer operation with the E&RC Supervisor. Contaminated resin are transferred from the drumming room to an outside dewatering cask using a metallic base rubber high pressure hose furnished by the contractor. Resin is moved through the lines to the cask by pressurizing the spent resin storage tank with nitrogen. The cask is vented and there are no flow restrictions to cause pressurization of the hose or couplings. The most likely means for a resin spill is to overfill the dewatering cask. The E&RC Supervisor said that during resin transfer, nearby storm drains are covered and communications are established between Operations and RC&T personnel. The inspector stated that these precautions should be detailed in the procedures discussed in paragraph 9.a above. The inspector had no further questions regarding this Information Notice.

11. IE Circulars

a. IE Circular 79-09, "Occurrences of Split or Punctured Regulator Diaphragms in Certain Self-Contained Breathing Apparatus"

By review of an internal memorandum and discussion with licensee representatives, an inspector determined that all plant Scott Air Paks have been inspected by an independent vender, plant personnel have been trained by Scott Aviation on the proper methods of inspection and repair, and all Scott Air Paks are inspected monthly by plant personnel. The inspector had no further questions.

- b. IE Circular 79-15, "Bursting of High Pressure Hose and Malfunction of Relief Valve and "O"-Ring in Certain Self-Contained Breathing Apparatus"

This circular described problems associated with Surviv Air breathing apparatus. A licensee representative stated that H. B. Robinson plant does not use that type SCBA. The inspector had no further questions.

12. Correlation of Radiation Monitors

An inspector reviewed the first completed P. T. 29.1, "Radiation Monitor Correlation Program", based on data obtained during June-August, 1979. These results were of limited value because most of the process and effluent monitor readings were below the statistically significant minimum detectable activity. The E&RC Supervisor said that he planned to perform the P. T. quarterly for about one year and then evaluate what deletions or changes should be made. The inspector had no further questions.