



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

Report Nos. 50-325/79-36 and 50-324/79-35

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

Facility Name: Brunswick 1 and 2

Docket Nos. 50-324 and 50-325

License Nos. DPR-62 and DPR-71

Inspection at Brunswick plant near Southport, North Carolina

Inspector:	<u>A F Gibson</u>	<u>9/19/79</u>
for G. L. Troup		Date Signed
Approved by:	<u>A F Gibson</u>	<u>9/19/79</u>
A. F. Gibson, Section Chief, FFMS Branch		Date Signed

SUMMARY

Inspection on September 4-7, 1979

Areas Inspected

This routine, unannounced inspection involved 27 inspector-hours onsite in the areas of reportable occurrence review, control of contaminated materials, external exposure control, posting of notices, notifications and reports, IE Circulars and Bulletins and followup on previously identified items.

Results

Of the seven areas inspected, no apparent items of noncompliance or deviations were identified in six areas; one item of noncompliance was found in one area (infraction - release of airborne radioactivity in excess of Environmental Technical Specifications limits).

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DETAILS

1. Persons Contacted

Licensee Employees

- *A. C. Tollison, Jr., Plant Manager
- *C. R. Gibson, Superintendent, Technical and Administration
S. E. Thorndyke, Operations Supervisor
- *L. F. Tripp, Acting Environmental and Radiation Control Supervisor
G. C. McCoy, RC&T Foreman
- *J. L. McKnight, RC&T Foreman
J. B. Cook, RC&T Foreman
- *J. L. Kiser, Plant Engineer
R. P. Cross, Plant Engineer
- *R. M. Poulk, NRC Coordinator

Other licensee employees contacted included five technicians and three operators.

NRC Resident Inspector

*J. E. Ouzts

*Attended exit interview

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2. Exit Interview

The inspection scope and findings were summarized on September 7, 1979, with those persons indicated in Paragraph 1 above. The inspector also discussed the emphasis now being placed on radioactive waste solidification and shipment and the necessity to assure the waste is being properly processed and solidified. The inspector noted that the completion dates contained in the CP&L responses to previous items of noncompliance had not been met and emphasized that commitments for completion of corrective actions must be met. Mr. Tollison acknowledged the inspector's comments in these areas.

3. Licensee Action on Previous Inspection Findings

(Closed) Infraction (324/79-04-01, 325/79-03-01) PNSC Approval of Contractor Test Procedures. The inspector reviewed the corrective actions on this item as stated in CP&L letter serial GD-79-651 of March 12, 1979 and the revision to surveillance test procedure PT 15.1 and verified that the corrective actions were completed. This item is closed.

(Closed) Deficiency (324/79-04-01, 325/79-03-01). Submittal of Reports to the NRC. The inspector reviewed the corrective actions on this item as stated in CP&L letter serial GD-79-651 of March 12, 1979, and the new procedures written as a result of this item (Administrative Procedure AI-37 and Engineering Procedure ENP-7). The inspector also reviewed RC&T Instruction 7009, which deals with overexposure investigations and subsequent

reports. The inspector commented that overexposure reports should be identified to the NRC Coordinator so they can be entered in the followup system established by AI-37. This was acknowledged by a licensee representative who stated that a revision to RC&T Instruction 7009 would be made to include the NRC Coordinator in the distribution list. The inspector had no further questions.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Reportable Occurrence Review

a. Radiological Environmental Event Report - Airborne Release

- (1) This event was reported by CP&L letter serial GD-79-1330 of May 22, 1979 and concerned an airborne release from the Unit 1 reactor building which exceeded the release limits of Environmental Technical Specifications 2.5.2.a(2) for a period of approximately 5 and one half hours on May 8, 1979. The cause of the release was attributed to leaving an air valve open following the transfer of the contents of a tank, resulting in generation of airborne materials which were released. Corrective actions taken or to be taken were contained in the letter.
- (2) The inspector reviewed the corrective actions contained in the letter and by review of procedures and records, and discussions with the cognizant supervisors, verified that the actions had been completed. A licensee representative informed the inspector that the reason for the access cover being loose was determined to be the cover fasteners had loosened apparently due to vibration. This was fixed by installing self-locking fasteners. However, the principal cause was the open air valve.
- (3) The inspector informed licensee management representatives that as the release exceeded the limits of Environmental Technical Specification 2.5.2.a(2), this was an item of noncompliance. However, as the corrective actions had been completed, no response to this item would be required. This was acknowledged by licensee representatives.

b. Radiological Environmental Event Report - Shipment of Radioactive Waste

This event was reported by CP&L letter serial GD-79-1260 of May 16, 1979, and supplemented by letter serial GD-79-1392 of June 1, 1979, and concerned a shipment of radioactive material for which the dose rate exceeded the Department of Transportation limits contained in 49 CFR 173.393(j)(3). The inspector reviewed the incident with the cognizant supervisor and discussed the status of corrective actions outlined in the letter. A licensee representative informed the inspector that the radwaste shipping procedure revision is not yet complete;

the inspector stated that this will be reviewed during a subsequent inspection (324/79-35-01, 325/79-36-01).

6. Control of Contaminated Materials

- a. During a tour of plant areas on September 5, 1979, the inspector observed paper and cloth shoe covers, cotton gloves and yellow plastic bags with unknown contents in barrels and other containers in outside areas within the restricted area. The materials identified were those normally used in contamination control areas of the plant. Many of these containers were next to the compactor which is used for clean trash. The inspector discussed this with licensee employees working in the area; they informed the inspector that when trash is dumped into the compactor, it is checked for material which could have come from the controlled area and any that is found is removed prior to compacting and sent back to the controlled area.
- b. On September 6, 1979, the inspector accompanied by a licensee representative, conducted radiation surveys of materials in the clean tool room, the clean trash compactor, miscellaneous trash receptacles and storage areas. No readings greater than background levels were found.
- c. The inspector discussed with licensee representatives the presence of the materials in the clean trash receptacles. A licensee representative acknowledged the potential for an inadvertent release of contaminated materials and stated that the traffic patterns, clothing storage areas, change areas and disposal container locations were being studied to reduce the amount of clothing and trash being disposed of in clean trash containers (324/79-35-02, 325/79-36-02).

7. External Exposure Control

- a. An inspector reviewed the licensee's program for external exposure control, including review of records, observation of control practices, and discussions with licensee personnel. Specific areas were (1) personnel monitoring requirements of 10 CFR 20.202.a, (2) permissible doses of 10 CFR 20.101.a, (3) extended permissible doses of 10 CFR 20.101.b, (4) exposure history requirements of 10 CFR 20.102, and (5) exposure records of 10 CFR 20.401.a. The inspector reviewed 17 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.
- b. 10 CFR 20.104 specifies the limits for occupational exposure of minors. A licensee management representative informed the inspector that while employment of minors at a power plant is not prohibited by state law, the practice is discouraged by the company, and that no minors were employed at the plant. The inspector reviewed the computer printout which serves as the equivalent for NRC Form-5 and determined from the

birth dates, that no minors were included in the exposure program. The inspector had no further questions on the exposure of minors.

- c. In reviewing the exposure printout, the inspector noted that one individual who is 18 years old was working in the radiation controlled areas. The individual's exposure was determined to be consistent with the requirements of 10 CFR 20.101.a. The inspector had no further questions.

8. Posting of Notices

10 CFR 19.11 requires the posting of Form NRC-3 and various documents or a notice stating where the documents may be examined. The inspector observed that Form NRC-3 and a notice to workers stated where the documents may be examined were posted at the entrance to the radiation controlled area. The inspector had no further questions.

9. IE Circulars and Bulletins

- a. Bulletin 78-03, "Potential Explosive Gas Mixture Accumulations Associated with BWR Off-Gas System Operations". The inspector reviewed the status of the modifications described in CP&L letter serial GD-78-868 of March 29, 1978, with licensee representatives. A licensee representative informed the inspector that the modification to the loop seals was incomplete in that the automatic level controller and fill valves installation are not complete; at the present time, the level in the head tank is periodically checked and manually filled if necessary. A licensee management representative stated that the completion of this work would be expedited to close out the modification. The inspector stated that this bulletin would remain open (324/325/78-18-05).
- b. Circular 79-09, "Occurrences of Split or Punctured Regulator Diaphragms In Certain Self Contained Breathing Apparatus". On June 11, 1979, the E&RC Supervisor issued two memoranda, one to all plant personnel and one to all RC&T technicians, describing the problem and the additional tests to be performed when using the apparatus. The inspector discussed this with RC&T technicians, who described how the fitting was performed to check the integrity of the diaphragm. A licensee representative also informed the inspector that the apparatuses are being sent to the manufacturer for routine servicing and the diaphragms are being checked by the manufacturer. No instances of diaphragm failure have been identified by the licensee or the manufacturer. The inspector had no further questions.
- c. Circular 79-15, "Bursting of High Pressure Hose and Malfunction of Relief Valve and O-Ring In Certain Self-Contained Breathing Apparatus". A licensee representative informed the inspector that no units described in the circular are used; the inspector had no further questions.

10. Notifications and Reports

- a. The inspector reviewed plant records and discussed topics with licensee representatives to determine if notifications and reports were required and if they were submitted in accordance with the following requirements during calendar year 1979:

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

One item of noncompliance had been previously identified regarding submittal of overexposure reports (324/79-04-02, 325/79-03-02). The inspector determined that no other reports had been required by the above regulations and had no further questions.

- b. 10 CFR 20.408 and 10 CFR 19.13 require that when an individual terminates employment with the licensee or completes his work assignment at the licensee's facility, a report of the individual's exposure to radiation and radioactive materials shall be submitted to the NRC and to the individual. The inspector selected twenty individuals who had terminated their employment or work assignment and reviewed the computer printout of date of termination and date of report for the individuals and determined that the reports had been submitted as required by 10 CFR 20.408. The inspector had no further questions.