



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II

101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303
December 10, 1982

Report Nos. 50-324/82-42 and 50-325/82-42

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

Facility Name: Brunswick

Docket Nos. 50-324 and 50-325

License Nos. DPR-71 and DPR-62

Inspection at Brunswick site near Southport, North Carolina

Inspector: W. W. Peery

11/30/82
Date Signed

Approved by: K. P. Barr
K. P. Barr, Section Chief
Technical Inspection Branch
Division of Engineering and Technical Programs

11/30/82
Date Signed

SUMMARY

Inspection on October 27-29, 1982

Areas Inspected

This special unannounced inspection involved 15 inspector-hours on site in the area of the transportation of low level radioactive wastes.

Results

In the area inspected, one violation was identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. L. Harness, Manager of Plant Operations
- *A. G. Cheatham, Manager, E&RC
- *D. E. Novotny, Senior Specialist, Regulatory Compliance
- J. Henderson, RC&T Foreman

NRC Resident Inspectors

- D. Myers, Senior Resident Inspector
- *L. Garner, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 29, 1982, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Loading Spent Resins for Shipment

During the period of October 11-13, 1982, licensee contractor personnel loaded resins from the Brunswick Plant makeup water treatment system into drums preparatory for shipment off site to the Chem-Nuclear Systems, Inc., burial facility at Barnwell, South Carolina. The licensee's RC&T personnel instructed the contractor personnel to use drums containing slight radioactive contamination inside since the shipment was to be made as low specific radioactivity. The RC&T personnel also instructed the contractor personnel to dewater the resins and add cement as necessary to absorb remaining moisture. The contractor personnel drained the water from the resins but misunderstood the requirement for mixing dry cement with the resins and instead made a cement-sand-water mix and poured this on top of the resins in the drums. Personnel of another contractor inspected some, but not all, of the drums prior to shipment and observed the semi-hard to

powdery concrete caps in the drums, replaced the lids on the drums and prepared them for shipment. The drums were shipped as part of a full load to the Barnwell site on October 15, 1982. On October 19, 1982, Chem-Nuclear, Inc. informed the licensee that a State of South Carolina inspector had drained about 16 gallons of liquid from one of the drums of resin. Subsequently, licensee personnel at the Barnwell site, along with Chem-Nuclear and State of South Carolina personnel, determined that four of the drums of resins contained about 15 gallons of liquid each.

6. Civil Penalty by the State of South Carolina

By letter dated October 22, 1982, the State of South Carolina informed the licensee that the quantity of liquid found in four drums (approximately 15 gallons each) was in violation of license condition No. 29 of South Carolina License No. 097, issued to Chem-Nuclear Systems, Inc. The State of South Carolina assessed CP&L a \$1000.00 civil penalty which has been paid.

7. Violations

(a) Shipment by the licensee of resins containing excess liquid to an Agreement State licensee, Chem-Nuclear Systems, Inc., is in violation of 10 CFR 30.41(a)(5) which requires that no licensee transfer byproduct material to an Agreement State licensee except as authorized under the terms of his license. The quantities of liquid contained in the resins exceeded those permitted by South Carolina License No. 097.

8. Causes

The licensee contends that three events caused this transportation incident. (1) Contractor personnel misunderstood instructions concerning packaging of the resins. (2) The work by the contractor was not inspected in progress by CP&L personnel. (3) The contractor did not adequately inspect all of the waste drums.

9. Corrective Actions

(a) Licensee personnel promptly visited the Barnwell burial site to observe the shipment first hand. The licensee voluntarily suspended all shipments to Barnwell pending the results of an investigation of the incident at the Brunswick plant. All packaged waste on site at Brunswick was opened, inspected and repackaged. Two additional CP&L Radiation Control Technicians have been added to the waste disposal operations to improve supervision and inspection of waste packaging in progress. Formal retraining has been provided for the inspection personnel with emphasis on applicable packaging regulations. Disciplinary action was initiated against the lead person responsible for waste inspections.

- (b) The inspector informed licensee representatives that the lack of adequate supervision of contractor personnel by CP&L personnel appeared to be a major cause of the transportation incident. The licensee representatives acknowledged this to be the case. The inspector stated that the incident may have been avoided if the contractor personnel had written procedures for packaging and inspecting the drums. Licensee representatives stated that no resins, regardless of their nature, will be shipped in drums. Rather, as has been the practice in the past, all resins will be shipped in liners and casks which are processed in accordance with well established routine procedures.