U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report Nos. 50-272/82-20 50-311/82-20 Docket Nos. 50-272 50-311 License Nos. DPR-70 Priority - Category C Licensee: Public Service Electric and Gas Company 80 Park Place Newark, New Jersey 07101

Facility Name: Salem Nuclear Generating Station, Units 1 and 2

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: August 16 - 20, 1982

Inspectors: O.A. Rowe for C. M. Hosey, Radiation Specialist

9.30-82 date

C.A. Rowe

C. A. Rowe, Radiation Specialist

9-30-82 date

Approved by:

Edward A Tuem E. G. Greenman, Acting Chief, Facilities
Radiation Protection Section

9-30-82 date

Programs Branch

Inspection Summary:

Inspection on August 16 - 20, 1982 (Report No. 50-272/82-20 and 50-311/82-20)

Areas Inspected: Routine, unannounced, safety inspection of licensee action on previous inspection findings, qualification and training, radiological surveys, radiation exposure permits, posting, labeling and control of radioactive material, exposure control, licensee audits, radioactive waste and advanced planning and preparation for outage. This inspection involved 61 inspector hours on site by two NRC region based inspectors.

Results: Violations: None

DETAILS

1. Persons Contacted

- * J. Driscoll, Assistant General Manager, Salem Operations
- W. Fergeson, Senior Performance Supervisor
 - A. Horvath, Training Specialist
 - B. Hunkle, Radioactive Waste Engineer
 - B. Leap, Supervisor, Quality Assurance
- * J. O'Connor, Radiation Protection Engineer
 - A. Ogurek, Supervisor, Dosimetry

*Denotes those personnel attending exit interview on August 20, 1982.

The inspectors also interviewed other licensee employees, including Radiological Controls, Radioactive Waste Transportation and Training personnel.

2. Licensee Action on Previously Identified Items

(Closed) Violation (82-08-01): Transportation of radioactive waste not packaged in a strong, tight package. Inspection verified that the licensee had conducted a formal review class, for personnel that were involved in radioactive waste shipment preparation. The licensee has modified plant procedures for shipment of radioactive materials to require a distinctive seal on the trailer door. The corrective actions appear adequate and were verified as described in the licensee's response to NRC, Region I, dated June 24, 1982.

3. Qualification and Training

The inspectors reviewed the licensee's training program, discussed the program with members of the training staff, and toured the licensee's training facilities located in Pennsville, New Jersey.

The inspectors' discussions and review of training procedures, lesson plans, and examinations indicated that the licensee had established a formal training program for General Employee Indoctrination, Radiation Workers, and Radiation Protection Technicians.

General employee indoctrination is provided to all personnel requiring unescorted access to restricted areas. Training Procedure Number 201 prescribes the subjects covered, establishes training records which must be retained, and also requires annual retraining for all employees.

Radiation worker training involves approximately 12 hours of classroom instruction, including respirator classroom training. Training Procedure Number 202 prescribes the subjects covered, establishes training records to be maintained, and requires annual retraining. The training appears to be well organized and appropriate for various plant conditions.

The licensee has established a three-step training program for progression of new employees to the position of radiation protection technician. The program includes ten weeks of classroom sessions for the employee at the Nuclear Apprentice Assistant, Apprentice Radiation Protection Assistant, and Radiation Protection Technician levels (a total of 30 hours of classroom instruction). The employee receives on-the-job training, which includes practical factor worksheets with sign-offs on procedures and appropriate tasks, after completion of each ten-week classroom session.

Contractor-supplied radiation protection technicians attend the radiation worker training course and must successfully complete a special examination to demonstrate their competence.

The inspectors' review of resumes and training records indicated that all radiation protection technicians were qualified for the level of work they were assigned.

No violations were identified.

4. Radiological Surveys

The inspector selectively reviewed the records of radiation, contamination, and airborne radioactivity surveys that were performed in 1982; discussed the survey results with licensee representatives; and observed radiation protection personnel performing surveys.

The inspectors also performed independent radiation surveys in the Auxiliary Building and in the restricted areas outside the radiation controlled area and verified that the areas surveyed were properly posted as required.

No violations were identified.

5. Radiation Exposure Permits

The inspectors reviewed active radiation exposure permits (REP) and REP's from the previous outage to verify the appropriateness of the radiation protection requirements based upon work scope, location, and conditions. During tours of the plant, the inspectors also observed the adherence of plant workers to the various REP requirements as established.

No violations were identified.

6. Posting, Labeling, and Control

The inspectors reviewed the licensee's posting and control of radiation areas, high radiation areas, contamination areas, and the labeling of radioactive material during tours of the facilities.

No violations were identified.

Exposure Control

The inspectors reviewed the licensee's exposure control program pursuant to the requirements of 10 CFR 20.101, 20.102, 20.103, 20.401, and 20.408 and discussed the program with licensee representatives.

The inspectors verified that the licensee had acceptable procedures for investigating lost badges and assigning proper dose and for resolving disagreements between TLD badges and self-reading pocket dosimeters.

The inspectors selectively reviewed daily computer printouts of dosimetry information, completed Forms NRC-4, equivalent Forms NRC-5, termination reports, and dose assignments for lost badges.

The inspectors' review of radiation exposure permits, air samples, surveys, and whole body counts did not identify any exposures to airborne radioactive materials in excess of 10 CFR 20.103 limits.

No violations were identified.

8. Licensee Audits

The inspectors' review and follow-up discussions with licensee representatives indicated that a formal surveillance program by Quality Assurance was established in January 1982 for the areas of Radiation Protection and Radioactive Waste Management.

The inspectors reviewed monthly audit reports in the above area for calendar year 1982 and determined that timely, corrective action had been taken to correct identified problems.

9. Radioactive Waste

The inspectors reviewed the licensee's Radioactive Waste Program against the requirements of 10 CFR 71 and 49 CFR 100 to 199 and discussed the program with licensee representatives.

The inspector selectively reviewed records from 91 shipments of radioactive material made by the licensee in 1982. The shipments included LSA radioactive waste, laundry, and radioactive material samples.

The inspector reviewed training records for personnel involved in packaging and transportation of radioactive waste. The review indicated that training was last given in July 1982.

No violations were identified.

10. Advance Planning and Preparation for Outage

The Radiation Protection Supervisor indicated that plans to increase the present staff by the addition of approximately 60 radiation protection technicians and clerks are being formulated.

Monthly outage planning meetings are attended by a member of the radiation protection staff, in addition to those meetings held for planning specific tasks to be accomplished during the outage. The Radiation Protection Supervisor indicated - a supervisor will be assigned to follow each major task during the outage.

Maintenance procedures for specific outage tasks will be reviewed by the radiation protection staff for radiation control and ALARA inputs.

Man-rem goals had not been established at the time of this inspection, but will be established and tracked for the outage, according to a cognizant, licensee representative.

11. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on August 20, 1982. The inspectors summarized the purpose, scope, and findings of the inspection.