

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-272/78-27

Docket No. 50-272

License No. 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, Unit 1

Inspection at: Hancocks Bridge, New Jersey

Inspection conducted: October 31-November 3, 1978

Inspectors: *W. H. Baunack*
W. H. Baunack, Reactor Inspector

11/12/78
date signed

R. P. Zimmerman
R. P. Zimmerman, Reactor Inspector

11/17/78
date signed

Approved by: *H. B. Kister*
H. B. Kister, Chief, Nuclear Support
Section No. 2, RO&NS Branch

date signed
11/17/78
date signed

Inspection Summary:

Inspection on October 31-November 3, 1978 (Report No. 50-272/78-27)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of administrative control of safety-related maintenance and surveillance testing; review of safety related maintenance activities; surveillance testing; inspector witnessing of surveillance test; technician qualifications and facility tours. The inspection involved 64 inspector-hours onsite by two NRC regional based inspectors.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Public Service Electric and Gas Company

- *Mr. C. Burge, Engineer (OPS)
- Mr. V. Gadzinski, Maintenance Planning Coordinator
- *Mr. S. LaBruna, Maintenance Engineer
- *Mr. D. Lyons, QA Specialist
- *Mr. H. Midura, Manager
- *Mr. L. Miller, Performance Engineer
- Mr. R. Scolletti, Safety Supervisor
- Mr. R. Silverio, Assistant to Manager
- Mr. T. Spencer, Maintenance Planning Coordinator
- *Mr. J. Stillman, Station (QA) Engineer
- *Mr. W. Treston, Resident (QA) Engineer
- Mr. M. Zimmerman, Instrument Supervisor
- *Mr. J. Zupko, Jr., Chief Engineer

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- *Mr. L. Norrholm, Resident Reactor Inspector

The inspectors also interviewed other licensee employees, including members of the Technical and Engineering staff, QA personnel, and general office personnel.

* denotes those present at the exit interview.

2. Administrative Control of Safety-Related Maintenance and Surveillance Testing

The inspectors reviewed the licensee's administrative controls for safety-related maintenance and surveillance testing as detailed in the following documents/procedures:

- Administrative Procedure No. 9, Work Order System, Revision 3, September 6, 1977;
- Administrative Procedure No. 25, Control of Station Repair and Maintenance, Revision 0, January 7, 1976;
- Administrative Procedure No. 11, Station Records, Revision 3, May 2, 1978;

- Administrative Procedure No. 19, Procurement, Receiving, Storage, Issue, and Shipping of Spare Parts and Material, Revision 2, August 31, 1978;
- Administrative Procedure No. 9, Work Order Log;
- Maintenance Department Manual A6, Equipment History, Revision 3, October 10, 1978;
- Maintenance Department Manual A3, Maintenance Department Training, Revision 4, September 1, 1978;
- Administrative Procedure No. 10, Inspection Order System, Revision 1, February 17, 1976;
- Administrative Procedure No. 27, Inservice Inspection Administrative Plan, Revision 1, January 19, 1978; and,
- Fire Fighting and Organization Manual, Revision 0, February 8, 1978.

The review was conducted to determine if the licensee's procedural requirements in the above areas are consistent with the Technical Specifications, Section 6, Administrative Controls, Regulatory Guide 1.33, Quality Assurance Program Requirements, and ANSI N18.7, Administrative Controls for Nuclear Power Plants. The findings from this review as well as the remainder of the inspection are as follows.

- Work Order Forms specified in Administrative Procedure AP 9 differ from forms actually in use.
- Work Order Forms in use make no provision for documenting retest requirements following the completion of maintenance.
- Administrative procedural requirements for the retention of completed Work Orders (AP 9) differs from the method of retention actually practiced.
- Project Directive No. 9, used in the preparation of Work Orders, which identified safety related components, was noted to be in need of revision.

- A method of purchasing safety related spare parts exists (Direct Charge) whereby the safety related spare part issuance and storage requirements of AP 19 can be bypassed.
- A work order for which an incident report was written did not have the related block checked on the completed work order.
- No material traceability was included on one completed work order. Material was stated as having been obtained from Unit 2 using a "101 Form." The use of a "101 Form" is not described in facility administrative procedures.
- No post maintenance check-out was specified on one completed work order.
- AP 12 states "The collection, return, or destruction of station records shall be under the control of the TDR as per the Document Room Procedures." No Document Room Procedures were stated to have been issued.
- Approved Maintenance Department Procedure AP 6 refers to a work order form that has not yet been issued.
- There is no administrative procedure governing the format and content of surveillance procedures, consequently, a number of fire protection system surveillance procedures were issued which did not meet requirements.

During the conduct of the review, the licensee provided the inspectors with a copy of a recent Quality Assurance Audit (QAD Audit Nos. S-78-14) which had been performed in August 1978, and had identified similar problems with the quality and effectiveness of the Station Administrative Controls. It was further noted that recent Station Quality Assurance Audits also indicated similar problems have existed. The inspectors also reviewed the station's response to the audit findings which essentially committed them to a review and rewrite of the station and departmental administrative procedures along with the necessary personnel indoctrination regarding conformance to administrative controls.

The inspectors discussed the identified administrative deficiencies with the station management and due to the apparent magnitude of the items, it was requested that the problem be re-reviewed to assure that all the necessary steps are being taken to bring the facility into full compliance expeditiously. It was further requested that NRC:RI be provided with the results of the re-review and the corrective actions to be taken along with a timetable for completion. This item is considered unresolved pending receipt, evaluation, and subsequent inspection of the licensee's corrective actions. (272/78-27-01)

3. Review of Safety Related Maintenance Activities

- a. The inspector reviewed safety related maintenance conducted by the licensee on a sampling basis to verify that:
 - Technical Specification Requirements were met while equipment was out of service, and a Licensee Event Report was submitted for maintenance associated with a reportable occurrence;
 - Required administrative approvals were obtained to perform the work;
 - An approved procedure was used where appropriate;
 - Required inspections were performed; and,
 - Records to substantiate quality of work and parts used were available (this includes documentation associated with procurement, inspections and test results).
- b. The following maintenance activities were reviewed to verify the above:
 - OD 10485, Repair Fan Coil Unit Motor Cooler;
 - OD 10503, Air Lock Leakage Out of Specification;
 - OD 10476, 12 Boric Acid Transfer Pump;
 - OD 10726, 12-SJ-45 Failed Stroke Time;
 - MD 2977, 1-CC-17 Valve Operator;

- MD 2956, 1-CC-190 Component Cooling (Motor Replaced);
- OD 10578, Containment Air Lock Inner Door Leak;
- PD 5023, Channel N-41;
- PD 5021, RMS Channel Check;
- PD 5002, Service Water Valve 15-SW-65;
- PD 5008, NIS Channel N-44; and,
- PD 5031, Pressurizer Pressure.

No unacceptable items were identified other than those noted in Paragraph 2 above.

4. Surveillance Testing

- a. The inspector reviewed surveillance tests on a sampling basis to verify the following.
 - Tests required by Technical Specifications are available and covered by properly approved procedures.
 - Test format and technical content are adequate and provide satisfactory testing of related systems or components.
 - Test results of selected tests are in conformance with Technical Specifications and procedure requirements have been reviewed by someone other than the tester or individual directing the test.
- b. The following surveillance tests were reviewed to verify the items identified above.
 - SP(0)4.6.2.1.(b), Revision 2, January 18, 1978, Containment Systems - Spray Additive System. Data reviewed for test performed May 30, 1978.
 - SP(0)4.6.2.2.(b), Revision 1, January 21, 1978, Containment Systems-Spray Additive System. Data reviewed for test performed September 1, 1978.
 - SP(0)4.7.7.1(a), Revision 1, March 14, 1978, Plant Systems - Auxiliary Building Exhaust Air Filtration System. Data reviewed for test performed October 1, 1978.

- SP(0)4.3.2.1.1(a), Revision 2, January 18, 1978, Reactivity Control Systems - Manual Safety Injection. Data reviewed for test performed May 28, 1978.
- SP(0)4.5.2(d1), Revision 3, January 3, 1978, Emergency Core Cooling - Residual Heat Removal Pressure Interlock Test. Data reviewed for test performed June 5, 1978.
- T.S.4.2.3.1(b), Revision 0, May 4, 1978, Power Distribution - Flux Mapping Procedure. Data reviewed for tests performed July 28, August 21, and September 25, 1978.
- T.S.4.8.2.3.2(b1) and T.S.4.8.2.3.2(b2), Procedure Number M3A - Battery Test Discharge. Data reviewed for tests of 1A 125 volt battery performed August 31, September 15, and October 4, 1978. Data reviewed for tests of 1B 125 volt battery performed September 25 and October 27, 1978.
- T.S.4.3.1.1.3, Revision 0, June 1, 1976, Instrumentation - 1PD-28018, Channel Sensor Time Response Test (PT-456). Pressurizer Pressure Protection - Channel II. Data reviewed for test performed September 27, 1977.
- T.S.4.3.1.1.3, Revision 0, June 17, 1976, Instrumentation - 1PD-2.7018, Channel Time Response Test (PT-456). Pressurizer Pressure Protection - Channel II. Data reviewed for test performed June 30, 1976.

No unacceptable items were identified other than those noted in Paragraph 2 above.

5. Inspector Witnessing of Surveillance Test

- a. The inspector witnessed the below listed surveillance test to verify the following.
 - Surveillance test procedure was available and in use.
 - Special test equipment, if required by procedure, was calibrated and in use.

- Test prerequisites were met.
- b. The inspector witnessed the performance of:
 - SP(0)4.7.10.1.1(b), Fire Pump Diesels, Revision 0, March 10, 1978. Performed November 1, 1978.
- c. The inspector noted that initial conditions, including valve lineup, were not contained in the procedure. The initial conditions were stated by the operator to be contained in Operating Instruction OI-V-3.3.1, Fire Protection System Operation, which is normally reviewed prior to performing the surveillance. A later review of this Operating Instruction noted that required initial conditions necessary to perform the surveillance test were listed. The licensee agreed that reference to OI-V-3.3.1 should appear in the initial conditions of the surveillance procedure, and issued an on-the-spot permanent procedure change. The inspector reviewed other surveillance procedures in order to determine if any Operating Instructions may also need to be referenced in the surveillance procedures. Since no other cases were noted, the inspector considered the above an isolated case, and had no further questions.

6. Technician Qualifications

The inspectors discussed and reviewed the qualification records of persons having responsibility for maintenance and surveillance testing of safety related components and equipment to verify that the individual's experience level and training were in accordance with the guidelines of ANSI N18.1-1971, Selection and Training of Nuclear Power Plant Personnel.

No unacceptable items were identified.

7. Facility Tours

On several occasions during the inspection, tours of the facility were conducted of the Turbine Building, Auxiliary Building, Fuel Handling Building, and portions of the security fence. During the tours, the inspectors discussed plant operations and observed housekeeping, radiation control measures, monitoring instrumentation, and controls for Technical Specification compliance.

No items of noncompliance were identified.

8. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, an item of non-compliance, or a deviation. An unresolved item discussed during the inspection is discussed in Paragraph 2.

9. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on November 3, 1978. The purpose, scope, and findings for the inspection were summarized.