

June 4, 1998

Mr. Harold W. Keiser
Executive Vice President-
Nuclear Business Unit
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NO. 1 (TAC NO. MA1373)

Dear Mr. Keiser:

The Commission has issued the enclosed Amendment No.211 to Facility Operating License No. DPR-70 for the Salem Nuclear Generating Station, Unit No. 1. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated March 26, 1998.

This amendment revises TS 3.1.3.3, "Rod Drop Time," to change the applicability from Mode 3 (hot shutdown) to Modes 1 and 2 (startup and power operation).

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
/s/

Patrick D. Milano, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-272

- Enclosures: 1. Amendment No.211 to License No. DPR-70
- 2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 4, 1998

Mr. Harold W. Keiser
Executive Vice President-
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Public Service Electric & Gas
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Sincerely,

A handwritten signature in black ink, appearing to read "Patrick D. Milano".

Patrick D. Milano, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-272

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License No. DPR-70
2. Safety Evaluation

cc w/encls: See next page

Mr. Harold W. Keiser
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Company

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Salem Nuclear Generating Station,
Units 1 and 2

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-272

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 211
License No. DPR-70

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated March 26, 1998, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-70 is hereby amended to read as follows:

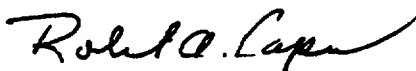
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 211, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance to be implemented within 60 days..

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: June 4, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 211

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages

3/4 1-21

Insert Pages

3/4 1-21

REACTIVITY CONTROL SYSTEMS

ROD DROP TIME

LIMITING CONDITION FOR OPERATION

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3.1.3.3 The individual full length (shutdown and control) rod drop time from 228 steps withdrawn shall be \leq 2.7 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry with:

- a. $T_{avg} \geq 541^{\circ}\text{F}$, and
- b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 & 2.

ACTION:

- a. With the drop time of any full length rod determined to exceed the above limit, restore the rod drop time to within the above limit prior to proceeding to MODE 1 or 2.
- b. With the rod drop times within limits but determined with 3 reactor coolant pumps operating, operation may proceed provided THERMAL POWER is restricted to $\leq 71\%$ of RATED THERMAL POWER.

SURVEILLANCE REQUIREMENTS

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4.1.3.3 The rod drop time of full length rods shall be demonstrated through measurement prior to reactor criticality:

- a. For all rods following each removal of the reactor vessel head,
- b. For specifically affected individual rods following any maintenance on or modification to the control rod drive system which could affect the drop time of those specific rods, and
- c. At least once per 18 months.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 211 TO FACILITY OPERATING LICENSE NO. DPR-70

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-272

1.0 INTRODUCTION

By letter dated March 26, 1998, the Public Service Electric & Gas Company (the licensee) submitted a request for changes to the Salem Nuclear Generating Station, Unit No. 1, Technical Specifications (TSs). The requested change would revise TS 3.1.3.3, "Rod Drop Time," to change the applicability from Mode 3 (hot shutdown) to Modes 1 and 2 (startup and power operation).

2.0 EVALUATION

The control rod drive mechanism is an electromagnetic jacking device that accomplishes holding and motion for a control rod and rod cluster control assembly (RCCA). Control rod movement takes place by sequentially energizing an arrangement of electromagnets (coils) that operate the stationary and moveable grippers and latches and the lifting armature. The control rod is held stationary by applying electrical power to the stationary gripper coil. When electrical power is removed from the stationary gripper coil either by manual initiation, or by the reactor protection system, the control rod is released and allowed to fall by gravity into the reactor core.

To ensure that the control rods with attached RCCAs will insert within the time assumed in the applicable accident analyses, a surveillance test is periodically performed before the reactor is brought critical (Mode 2). This surveillance, TS 4.1.3.3, requires that rod drop time of full-length rods be demonstrated through measurement prior to criticality. The Rod Drop Time Limiting Condition for Operation (LCO) in TS 3.1.3.3 states that individual full-length (shutdown and control) rod drop time from 228 steps withdrawn shall be ≤ 2.7 seconds as measured from the beginning of stationary gripper coil voltage decay to dashpot entry. To ensure that the as-tested rod drop times are consistent with the assumption in the analyses and are representative of insertion times experienced during a reactor trip at operating conditions, TS 4.1.3.3 requires the test to be done when average reactor coolant system temperature (T_{ave}) ≥ 541 °F. and all reactor coolant pumps are in operation. Thus, the test must be conducted when the plant is in Mode 3 (hot shutdown).

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TS Bases 3/4.0, "APPLICABILITY" states that TS 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the LCO is required for safe operation of the facility. The current Applicability statement in TS 3.1.3.3 states the requirement is applicable only in Mode 3. Although the rod drop time verification for TS 3.1.3.3 is performed in Mode 3, the conformance to this LCO ensures safe operation when the reactor is in startup or power operation (Modes 1 and 2). Therefore, TS 3.1.3.3 Applicability should be Modes 1 and 2. Furthermore, the licensee stated in its March 26, 1998, letter that it had committed to submitting this change request as a corrective action in Licensee Event Report No. 272/96-005-10. The proposed change will also make this Salem Unit 1 Applicability statement consistent with the same statement in the Salem Unit 2 TSs.

On the basis of the above, the NRC staff finds that the proposed change to the TS 3.1.3.3 Applicability statement is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (63 FR 19978). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: P. Milano

Date: June 4, 1998