

January 23, 1997

Mr. Leon R. Eliason
Chief Nuclear Officer & President-
Nuclear Business Unit
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2 (TAC NOS. M96938 AND M96939)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment Nos. 188 and 171 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Nuclear Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated October 24, 1996, as supplemented December 23, 1996.

These amendments revise TS 3/4.7.1.2, "Auxiliary Feedwater System," to change the 18-month surveillances performed on the system's pumps and valves because testing of the turbine driven Auxiliary Feedwater pump can only be performed in higher modes when sufficient secondary steam pressure exists.

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

Sincerely,
original signed by
Leonard N. Olshan, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-272/311

- Enclosures: 1. Amendment No. 188 to License No. DPR-70
- 2. Amendment No. 171 to License No. DPR-75
- 3. Safety Evaluation

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NAME	MO'Brien	LOlshan:rb <i>fr</i>	TMarsh	<i>EHOLLER</i>	JStolz
DATE	<i>1/1/97</i>	<i>1/8/97</i>	12/16/96	<i>1/17/97</i>	<i>1/22/97</i>

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 23, 1997

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Chief Nuclear Officer & President-
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These amendments revise TS 3/4.7.1.2, "Auxiliary Feedwater System," to change the 18-month surveillances performed on the system's pumps and valves because testing of the turbine driven Auxiliary Feedwater pump can only be performed in higher modes when sufficient secondary steam pressure exists.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "L. N. Olshan".

Leonard N. Olshan, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-272/311

Enclosures: 1. Amendment No. 188 to
License No. DPR-70
2. Amendment No. 171 to
License No. DPR-75
3. Safety Evaluation

cc w/encls: See next page

Mr. Leon R. Eliason
Public Service Electric & Gas
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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. 188
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 October 24, 1996, supplemented December 23, 1996, 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:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 188, 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: January 23, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 188

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Page

3/4 3-14

3/4 7-6

Insert Page

3/4 3-14

3/4 7-6

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

=====

3.3.2.1 The Engineered Safety Feature Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-3 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 and with RESPONSE TIMES as shown in Table 3.3-5.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

- a. With an ESFAS instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION requirement of Table 3.3-3 until the channel is restored to OPERABLE status with the trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With an ESFAS instrumentation channel inoperable, take the ACTION shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

=====

4.3.2.1.1 Each ESFAS instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the interlocks shall be demonstrated OPERABLE during the automatic actuation logic test. The total interlock function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by interlock operation.

4.3.2.1.3 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" Column of Table 3.3-3. The provisions of Specification 4.0.4 are not applicable to MSIV closure time testing. The provisions of Specification 4.0.4 are not applicable to the turbine driven auxiliary feedwater pump provided the surveillance is performed within 24 hours after the secondary steam generator pressure is greater than 680 psig.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (continued)

- b. At least once per 92 days on a STAGGERED TEST BASIS by:
1. Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1275 psig on recirculation flow.
 2. Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1500 psig on recirculation flow when the secondary steam generator pressure is greater than 680 psig. The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 24 hours after secondary side pressure is greater than 680 psig.

- c. At least once per 18 months by:
1. Verifying that each auxiliary feedwater automatic valve that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.
 2. Verifying that each auxiliary feedwater pump starts automatically on an actual or simulated actuation signal.

The provisions of Specification 4.0.4 are not applicable to the turbine driven auxiliary feedwater pump provided the surveillance is performed within 24 hours after the secondary steam generator pressure is greater than 680 psig.



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. 50-311

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 171
License No. DPR-75

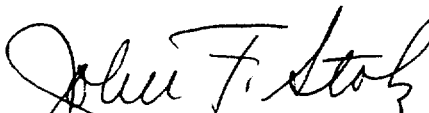
1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated October 24, 1996, supplemented December 23, 1996, 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-75 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 171, 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, 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: January 23, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 171

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Page

3/4 3-14

3/4 7-6

Insert Page

3/4 3-14

3/4 7-6

INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

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APPLICABILITY: As shown in Table 3.3-3.

ACTION:

- a. With an ESFAS instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable ACTION requirement of Table 3.3-3 until the channel is restored to OPERABLE status with the trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With an ESFAS instrumentation channel inoperable, take the ACTION shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

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4.3.2.1.1 Each ESFAS instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations for the MODES and at frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the interlocks shall be demonstrated OPERABLE during the automatic actuation logic test. The total interlock function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by interlock operation.

4.3.2.1.3 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" Column of Table 3.3-3. The provisions of Specification 4.0.4 are not applicable to MSIV closure time testing. The provisions of Specification 4.0.4 are not applicable to the turbine driven auxiliary feedwater pump provided the surveillance is performed within 24 hours after the secondary steam generator pressure is greater than 680 psig.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 92 days on a STAGGERED TEST BASIS by:
1. Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1275 psig on recirculation flow.
 2. Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1500 psig on recirculation flow when the secondary steam generator supply pressure is greater than 680 psig. The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 24 hours after secondary side pressure is greater than 680 psig.
- c. At least once per 18 months by:
1. Verifying that each auxiliary feedwater automatic valve that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.
 2. Verifying that each auxiliary feedwater pump starts automatically on an actual or simulated actuation signal.

The provisions of Specification 4.0.4 are not applicable to the turbine driven auxiliary feedwater pump, provided the surveillance is performed within 24 hours after the secondary steam generator pressure is greater than 680 psig.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 188 AND 171 TO FACILITY OPERATING

LICENSE NOS. DPR-70 AND DPR-75

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-272 AND 50-311

1.0 INTRODUCTION

By letter dated October 24, 1996, supplemented December 23, 1996, the Public Service Electric & Gas Company (the licensee) submitted a request for changes to the Salem Nuclear Generating Station, Unit Nos. 1 and 2, Technical Specifications (TSs). The requested changes would revise TS 3/4.7.1.2, "Auxiliary Feedwater System," by changing the 18-month surveillances performed on the system's pumps and valves because testing of the turbine driven Auxiliary Feedwater (AFW) pump can only be performed in higher modes when sufficient secondary steam pressure exists. The December 23, 1996, letter proposed changes to TS 3/4.3.2 to provide consistency with those proposed in the October 24, 1996, letter and therefore did not change the initial proposed no significant hazards consideration determination and was within the scope of the initial Federal Register notice.

2.0 EVALUATION

TS 4.7.1.2.c.2 is performed to verify that the AFW pumps start automatically upon receipt of an actuation signal. The motor-driven pumps can be tested in the shutdown condition. However, since steam is needed to drive the turbine driven AFW pump (TDAFWP), it cannot be tested until the necessary secondary steam pressure is available, which occurs in Mode 3. TS 4.0.4 prohibits entry into an OPERATIONAL MODE without having performed the required surveillances. Thus, the licensee proposed a change to TS 4.7.1.2.c.2 which states that the provisions of TS 4.0.4 are not applicable to the TDAFWP provided that the surveillance is performed within 24 hours after the secondary steam pressure is greater than 680 pounds per square inch (psig). This is consistent with the changes approved by the staff in Amendment 165 for Unit 1 and Amendment 146 for Unit 2, dated April 17, 1995. Since the exception to TS 4.0.4 is necessary to accommodate testing of the TDAFWP and the proposed change is consistent with previously approved amendments, the staff finds this change acceptable.

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The licensee proposed to delete "during shutdown" from TS 4.7.1.2.c. As explained above, the TDAFWP cannot be tested during shutdown. Therefore, the staff finds the change acceptable.

The licensee also proposed a change to TS 4.7.1.2.c.2 which allows the automatic start to be initiated by either an actual or a simulated signal, rather than just a simulated signal. (The licensee changed the original wording of "test" signal to "simulated" signal for consistency with NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1, dated April 7, 1995.) The staff concludes that for the purposes of this surveillance, it makes no difference if the automatic start is initiated by an actual or a simulated signal; therefore, the staff finds this change acceptable.

The licensee proposed a change to TS 4.7.1.2.c.1 from "each automatic valve in the motor driven pump flow path" to "each auxiliary feedwater automatic valve that is not locked, sealed, or otherwise secured in position". The change expands the scope of the surveillance to include the TDAFWP start-stop valves. The staff concludes that this change is more conservative (an additional valve is included in the surveillance), that the wording is consistent with NUREG-1431, and it is therefore acceptable.

By letter dated December 23, 1996, the licensee proposed a change to TS 4.3.2.1.3. This change provides consistency with the change in TS 4.7.1.2.c.2 and, therefore, it 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 amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (61 FR 58905). Accordingly, the amendments meet 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 amendments.

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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: L. Olshan

Date: January 23, 1997