

April 17, 1995

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. M90551
AND M90552)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment Nos. 165 and 146 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
September 20, 1994.

These amendments modify the TSs for auxiliary feedwater to reduce the
secondary side steam pressure required for testing the turbine driven
auxiliary feedwater pump and to allow 24 hours to perform the test after
reaching the minimum test pressure.

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/

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

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PDR

Docket Nos. 50-272/50-311

Enclosures: 1. Amendment No. 165 to
License No. DPR-70
2. Amendment No. 146 to
License No. DPR-75
3. Safety Evaluation

cc w/encls: See next page

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

April 17, 1995

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. M90551 AND M90552)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment Nos. 165 and 146 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 September 20, 1994.

These amendments modify the TSs for auxiliary feedwater to reduce the secondary side steam pressure required for testing the turbine driven auxiliary feedwater pump and to allow 24 hours to perform the test after reaching the minimum test pressure.

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 "Leonard N. Olshan", is written over the typed name.

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

Docket Nos. 50-272/50-311

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License No. DPR-70
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3. Safety Evaluation

cc w/encls: See next page

Mr. Leon R. Eliason
Public Service Electric & Gas
Company

cc:

Mark J. Wetterhahn, Esquire
Winston & Strawn
1400 L Street NW
Washington, DC 20005-3502

Richard Fryling, Jr., Esquire
Law Department - Tower 5E
80 Park Place
Newark, NJ 07101

Mr. John Summers
General Manager - Salem Operations
Salem Generating Station
P.O. Box 236
Hancocks Bridge, NJ 08038

Mr. J. Hagan
Vice President - Nuclear Operations
Nuclear Department
P.O. Box 236
Hancocks Bridge, New Jersey 08038

Mr. Charles S. Marschall, Senior
Resident Inspector
Salem Generating Station
U.S. Nuclear Regulatory Commission
Drawer I
Hancocks Bridge, NJ 08038

Dr. Jill Lipoti, Asst. Director
Radiation Protection Programs
NJ Department of Environmental
Protection and Energy
CN 415
Trenton, NJ 08625-0415

Maryland Office of People's Counsel
6 St. Paul Street, 21st Floor
Suite 2102
Baltimore, Maryland 21202

Ms. R. A. Kankus
Joint Owner Affairs
PECO Energy Company
965 Chesterbrook Blvd., 63C-5
Wayne, PA 19087

Mr. S. LaBruna
Vice President - Nuclear Engineering
Nuclear Department
P.O. Box 236
Hancocks Bridge, New Jersey 08038

Salem Nuclear Generating Station,
Units 1 and 2

Richard Hartung
Electric Service Evaluation
Board of Regulatory Commissioners
2 Gateway Center, Tenth Floor
Newark, NJ 07102

Regional Administrator, Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Lower Alloways Creek Township
c/o Mary O. Henderson, Clerk
Municipal Building, P.O. Box 157
Hancocks Bridge, NJ 08038

Mr. Frank X. Thomson, Jr., Manager
Licensing and Regulation
Nuclear Department
P.O. Box 236
Hancocks Bridge, NJ 08038

Mr. David Wersan
Assistant Consumer Advocate
Office of Consumer Advocate
1425 Strawberry Square
Harrisburg, PA 17120

Ms. P. J. Curham
MGR. Joint Generation Department
Atlantic Electric Company
P.O. Box 1500
6801 Black Horse Pike
Pleasantville, NJ 08232

Carl D. Schaefer
External Operations - Nuclear
Delmarva Power & Light Company
P.O. Box 231
Wilmington, DE 19899

Public Service Commission of Maryland
Engineering Division
Chief Engineer
6 St. Paul Centre
Baltimore, MD 21202-6806



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. 165
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 September 20, 1994, 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:

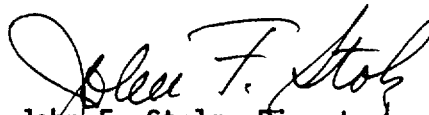
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 165, 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



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: April 17, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 165

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages

3/4 7-6

Insert Pages

3/4 7-6

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 during shutdown by:
 - 1. Verifying that each automatic valve in the motor driven pump flow path actuates to its correct position on a pump discharge pressure test signal.
 - 2. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of each auxiliary feedwater actuation test signal.



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. 146
License No. DPR-75

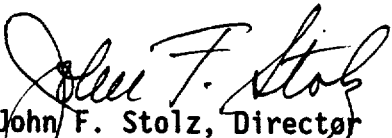
1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated September 20, 1994, 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. 146, 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


John F. Stolz, Director
Project Directorate 1-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 17, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 146

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Pages

3/4 7-6

Insert Pages

3/4 7-6

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 during shutdown by:
 - 1. Verifying that each automatic valve in the motor driven pump flow path actuates to its correct position on a pump discharge pressure test signal.
 - 2. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of each auxiliary feedwater actuation test signal.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 165 AND 146 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 September 20, 1994, Public Service Electric & Gas Company (PSE&G or the licensee) requested changes to the auxiliary feedwater (AFW) system technical specification (TS) for Salem, Units 1 and 2. Specifically, the proposed changes would revise TS surveillance requirement 4.7.1.2.b.2 to reduce the secondary side steam pressure required for testing the steam turbine-driven AFW pump and to clarify the time required to perform the turbine-driven AFW pump surveillance test when entering Mode 3.

The proposed reduction in required steam test pressure is necessary to coincide with the licensee's fuel upgrade and margin recovery project which includes analyses for reduced Tavg (average reactor coolant system temperature) and increased steam generator tube plugging. The new operating parameters reduce the normal operating secondary side steam pressure. However, the zero load secondary side steam pressure is not affected by the new operating parameters. The proposed change to clarify the time for performing the surveillance test after entry into Mode 3 is necessary to assure that the test is performed in a timely manner upon entering Mode 3. Prior to entry into Mode 3, sufficient steam pressure does not exist to perform the required test and, therefore, the current TS includes an exemption to allow entry into Mode 3 without having performed the required turbine-driven pump test.

2.0 EVALUATION

The 92-day surveillance requirement for the turbine-driven AFW pump in the current AFW system TS specifies that the steam supply pressure during testing should be greater than 750 psig (pounds per square inch gauge). The proposed change would reduce this minimum test pressure to 680 psig and clarify that

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the steam "supply" pressure is steam "generator" pressure. The minimum required discharge pressure developed during the test as specified in the existing surveillance requirement is 1500 psig and will remain unaffected by the proposed change. Because the minimum required steam generator test pressure has been reduced by the proposed change while the minimum developed discharge pressure remains the same, the staff concludes that the proposed change is conservative in nature and, therefore, acceptable. The staff also notes that under zero steam load conditions (conditions under which the AFW system will normally operate in an emergency) the minimum steam generator pressure available would still be greater than 750 psig.

The current 92-day surveillance requirement also contains a statement (exception) that the provisions of Specification 4.0.4 (mode change restriction) are not applicable. This exception is required to allow entry into Mode 3 prior to testing the turbine-driven AFW pump because there is insufficient steam generator pressure to perform the test prior to entering Mode 3. However, the plant may be in Mode 3 and still not meet the necessary plant conditions for the test to be performed. The current specification is not clear in this regard and could be interpreted to require the turbine-driven AFW pump to be declared inoperable immediately after entry into Mode 3. The proposed change would specify that the surveillance must be performed within 24 hours after secondary side steam generator pressure is greater than 680 psig. The proposed clarification is acceptable because it retains the necessary operating flexibility by not requiring an unnecessary entry into an action statement (in Mode 3 with the test not yet performed) and at the same time ensures that the test will be performed in a timely manner (24 hours) after the plant conditions required for the test are satisfied. The proposed 24 hour period is also consistent with the time allowed in NUREG-1431, "Standard Technical Specifications - Westinghouse Plants".

Based on its evaluation, the staff concludes that the proposed change to reduce the minimum required steam generator pressure during performance of the 92-day surveillance test of the turbine-driven AFW pump is necessary to be consistent with the licensee's fuel upgrade and margin recovery program and is acceptable because it is conservative in nature (retains the same minimum discharge pressure requirement) and still demonstrates the pump's capability to perform its design safety function. The staff further concludes that the proposed change to allow 24 hours to perform the test after entry into Mode 3 is acceptable because it clarifies the surveillance requirement and ensures that the test will be performed in a timely fashion after suitable plant conditions are reached. The staff, therefore, concludes that the proposed changes to TS surveillance requirement 4.7.1.2.b.2 are acceptable and should be approved.

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 (59 FR 55889). 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: W. LeFave

Date: April 17, 1995