

December 30, 1985

Docket Nos. 50-272  
and 50-311

Mr. C. A. McNeill, Jr.  
Vice President - Nuclear  
Public Service Electric and Gas Company  
Post Office Box 236  
Hancocks Bridge, New Jersey 08038

DISTRIBUTION

Docket File  
L PDR  
PWR#3-A Gray 4  
C. Parrish  
OELD  
E. Jordan  
T. Barnhart 4  
ACRS 10  
LFMB  
NRC PDR  
PWR#3-A Rdg  
H. Thompson  
D. Fischer  
L. Harmon  
B. Grimes  
W. Jones  
OPA

Dear Mr. McNeill:

The Commission has issued the enclosed Amendment No. 69 to Facility Operating License No. DPR-70 and Amendment No. 44 to Facility Operating License No. DPR-75 for the Salem Nuclear Generating Station, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated October 15, 1984.

These amendments revise the technical specifications regarding coolant loop operability requirements while in mode 3.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,

/s/DFischer

Donald Fischer, Senior Project Manager  
PWR Project Directorate #3  
Division of PWR Licensing-A

Enclosures:

1. Amendment No. 69 to DPR-70
2. Amendment No. 44 to DPR-75
3. Safety Evaluation

cc: w/enclosures  
See next page

PWR#3-A CP PWR#3-A DF  
CParrish DFischer;ps  
12/9/85 12/9/85

D/PWR#3-A  
SVarga  
12/9/85

OELD  
Jh. Karman  
12/12/85

B601130521 851230  
PDR ADDCK 05000272  
PDR

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Donald Fischer, Senior Project Manager  
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See next page

PWR#3-A	PWR#3-A	D/PWR#3-A	OELD
CParrish	DFischer;ps	SVarga	
12/6/85	11/ /85	11/ /85	11/ /85

Mr. C. A. McNeill  
Public Service Electric & Gas Company    Salem Nuclear Generating Station

cc:

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Lower Alloways Creek Township  
Municipal Hall  
Hancocks Bridge, New Jersey 08038

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Salem Nuclear Generating Station  
U.S. Nuclear Regulatory Commission  
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General Manager  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

PUBLIC SERVICE ELECTRIC AND 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.69  
License No. DPR-70

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Public Service Electric and Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated October 15, 1984, 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;
  - 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:

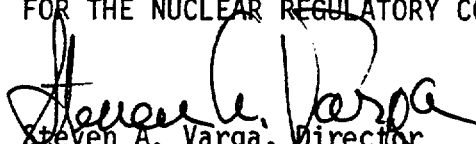
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PDR ADOCK 05000272  
P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.69 , 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Director  
PWR Project Directorate #3  
Division of PWR Licensing A

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 30, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages

3/4 4-2

3/4 4-2a

Insert Pages

3/4 4-2

3/4 4-2a

REACTOR COOLANT SYSTEM

HOT STANDBY

LIMITING CONDITION FOR OPERATION

---

- 3.4.1.2 a. At least two of the reactor coolant loops listed below shall be OPERABLE:
1. Reactor Coolant Loop 11 and its associated steam generator and reactor coolant pump,
  2. Reactor Coolant Loop 12 and its associated steam generator and reactor coolant pump,
  3. Reactor Coolant Loop 13 and its associated steam generator and reactor coolant pump,
  4. Reactor Coolant Loop 14 and its associated steam generator and reactor coolant pump.
- b. At least one of the above coolant loops shall be in operation\* when the rod control system is deenergized\*\*.
- c. All of the above coolant loops shall be in operation when the rod control system is energized\*\*.

APPLICABILITY:    MODE 3

ACTION:

- a. With less than the above required reactor coolant loops OPERABLE, restore the required loops to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. With no reactor coolant loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required coolant loop to operation.

## REACTOR COOLANT SYSTEM

### HOT STANDBY

#### SURVEILLANCE REQUIREMENTS

---

- 4.4.1.2.1 At least the above required reactor coolant pumps, if not in operation, shall be determined to be OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.
- 4.4.1.2.2 At least one cooling loop shall be verified to be in operation and circulating reactor coolant at least once per 12 hours.
- 4.4.1.2.3 The required steam generator(s) shall be determined OPERABLE by verifying secondary side water level to be greater than or equal to 5% (narrow range) at least once per 12 hours.

---

\*All reactor coolant pumps may be de-energized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the reactor coolant system boron concentration (2) core outlet temperature is maintained at least 10°F below saturation temperature, and (3) the rod control system is de-energized\*\*

\*\*The rod control system shall be considered de-energized when one or more of the following conditions exist:

- 1) Both Rod Drive MG set motor breakers are open.
- 2) Both Rod Drive MG set generator breakers are open.
- 3) A combination of at least three of the Reactor Trip and/or Reactor Trip Bypass Breakers are open.

If none of the above conditions for de-energizing the rod control system are met; the system shall be considered energized.





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

PUBLIC SERVICE ELECTRIC AND 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.44  
License No. DPR-75

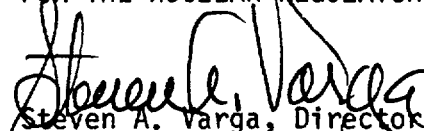
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Public Service Electric and Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated October 15, 1984 complies with 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;
  - 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

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 44 , 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Director  
PWR Project Directorate #3  
Division of PWR Licensing-A

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 30, 1985

ATTACHMENT TO LICENSE AMENDMENT NO.44

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Pages

3/4 4-2

3/4 4-2a

Insert Pages

3/4 4-2

3/4 4-2a

REACTOR COOLANT SYSTEM

HOT STANDBY

LIMITING CONDITION FOR OPERATION

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- 3.4.1.2 a. At least two of the reactor coolant loops listed below shall be OPERABLE:
1. Reactor Coolant Loop 21 and its associated steam generator and reactor coolant pump,
  2. Reactor Coolant Loop 22 and its associated steam generator and reactor coolant pump,
  3. Reactor Coolant Loop 23 and its associated steam generator and reactor coolant pump,
  4. Reactor Coolant Loop 24 and its associated steam generator and reactor coolant pump.
- b. At least one of the above coolant loops shall be in operation\* when the rod control system is deenergized\*\*.
- c. All of the above coolant loops shall be in operation when the rod control system is energized\*\*.

APPLICABILITY:    MODE 3

ACTION:

- a. With less than the above required reactor coolant loops OPERABLE, restore the required loops to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. With no reactor coolant loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required coolant loop to operation.

## REACTOR COOLANT SYSTEM

### HOT STANDBY

#### SURVEILLANCE REQUIREMENTS

---

- 4.4.1.2.1 At least the above required reactor coolant pumps, if not in operation, shall be determined to be OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.
- 4.4.1.2.2 At least one cooling loop shall be verified to be in operation and circulating reactor coolant at least once per 12 hours.
- 4.4.1.2.3 The required steam generator(s) shall be determined OPERABLE by verifying secondary side water level to be greater than or equal to 5% (narrow range) at least once per 12 hours.

---

\*All reactor coolant pumps may be de-energized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the reactor coolant system boron concentration (2) core outlet temperature is maintained at least 10°F below saturation temperature, and (3) the rod control system is de-energized\*\*

\*\*The rod control system shall be considered de-energized when one or more of the following conditions exist:

- 1) Both Rod Drive MG set motor breakers are open.
- 2) Both Rod Drive MG set generator breakers are open.
- 3) A combination of at least three of the Reactor Trip and/or Reactor Trip Bypass Breakers are open.

If none of the above conditions for de-energizing the rod control system are met; the system shall be considered energized.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. DPR-70  
AND AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. DPR-75

PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
PHILADELPHIA ELECTRIC COMPANY  
DELMARVA POWER AND LIGHT COMPANY, AND  
ATLANTIC CITY ELECTRIC COMPANY

SALEM NUCLEAR GENERATION STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-272 AND 50-311

INTRODUCTION

Section 10 CFR 50.36 of the Commission's regulations requires that the technical specifications be consistent with the safety analysis. The licensee discovered an inconsistency between the technical specifications and the FSAR safety analysis in the assumption made for the number of reactor coolant pumps in operation while at hot standby. The number of reactor coolant pumps in operation is important in the event of a control of a control withdrawal accident since increased flow acts to reduce the enthalpy rise in the core and increase the DNBR before reactor trip.

EVALUATIONS AND SUMMARY

The licensee proposed that the number of reactor coolant pumps required to be in operation when the control rods are energized be increased from 1 to 4. Only one reactor coolant pump is required to be in operation when the control rods are not energized since a control rod withdrawal accident could not occur. The proposed change provides for additional conservatism and is acceptable to the staff.

Environmental Consideration

These amendments involve a change in the installation or use of the facilities components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 these amendments.

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Conclusion

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 30, 1985

Principal Contributor:

W. Jensen