



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.60  
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 December 27, 1983 and supplemented February 25, 1985, 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:

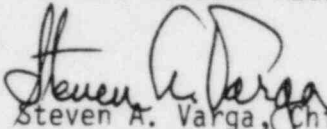
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 60, 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, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 8, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 60

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages

3/4 3-5

3/4 3-9

3/4 3-21

Insert Pages

3/4 3-5

3/4 3-9

3/4 3-21

TABLE 3.3-1 (Continued)

TABLE NOTATION

- \* With the reactor trip system breakers in the closed position and the control rod drive system capable of rod withdrawal.
- \*\* The channel(s) associated with the protective functions derived from the out of service Reactor Coolant Loop shall be placed in the tripped condition.
- # The provisions of Specification 3.0.4 are not applicable.
- ## High voltage to detector may be de-energized above P-6.

ACTION STATEMENTS

- ACTION 1 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1 provided the other channel is OPERABLE.
- ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- The inoperable channel is placed in the tripped condition within 1 hour.
  - The Minimum Channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.
  - Either, THERMAL POWER is restricted to  $< 75\%$  of RATED THERMAL and the Power Range, Neutron Flux trip setpoint is reduced to  $< 85\%$  of RATED THERMAL POWER within 4 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours.
- ACTION 3 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:

TABLE 3.3-2

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME</u>
1. Manual Reactor Trip	NOT APPLICABLE
2. Power Range, Neutron Flux	$\leq 0.5$ seconds*
3. Power Range, Neutron Flux, High Positive Rate	NOT APPLICABLE
4. Power Range, Neutron Flux, High Negative Rate	$\leq 0.5$ seconds*
5. Intermediate Range, Neutron Flux	NOT APPLICABLE
6. Source Range, Neutron Flux	NOT APPLICABLE
7. Overtemperature $\Delta T$	$\leq 4.0$ seconds*
8. Overpower $\Delta T$	NOT APPLICABLE
9. Pressurizer Pressure--Low	$\leq 2.0$ seconds
10. Pressurizer Pressure--High	$\leq 2.0$ seconds
11. Pressurizer Water Level--High	NOT APPLICABLE

\*Neutron detectors are exempt from response time testing. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input of first electronic component in channel.

TABLE 3.3-2 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME</u>
12. Loss of Flow - Single Loop (Above P-8)	$\leq 1.0$ seconds
13. Loss of Flow - Two Loops (Above P-7 and below P-8)	$\leq 1.0$ seconds
14. Steam Generator Water Level--Low-Low	$\leq 2.0$ seconds
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	NOT APPLICABLE
16. Undervoltage-Reactor Coolant Pumps	$\leq 1.2$ seconds
17. Underfrequency-Reactor Coolant Pumps	$\leq 0.6$ seconds
18. Turbine Trip	
A. Low Fluid Oil Pressure	NOT APPLICABLE
B. Turbine Stop Valve	NOT APPLICABLE
19. Safety Injection Input from ESF	NOT APPLICABLE
20. Reactor Coolant Pump Breaker Position Trip	NOT APPLICABLE

TABLE 3.3-3 (Continued)

TABLE NOTATION

- \* Trip function may be bypassed in this MODE below P-11.
- \*\* Trip function may be bypassed in this MODE below P-12.
- \*\*\* The channel(s) associated with the protective functions derived from the out of service Reactor Coolant Loop shall be placed in the tripped mode.
- \* The provisions of Specification 3.0.4 are not applicable.

ACTION STATEMENTS

- ACTION 13 - With the number of OPERABLE Channels one less than the Total Number of Channels, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.
- ACTION 14 - With the number of OPERABLE Channels one less than the Total Number of Channels, operation may proceed until performance of the next required CHANNEL FUNCTIONAL TEST, provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 15 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in HOT SHUTDOWN within the following 12 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.
- ACTION 16 - With the number of OPERABLE Channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is demonstrated within 1 hour; one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.



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PUBLIC SERVICE ELECTRIC AND GAS COMPANY  
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ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-311

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.31  
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 December 27, 1983 and supplemented February 25, 1985, 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:

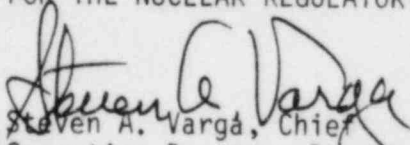


(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.31, 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, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 8, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 31

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Pages

3/4 3-9

3/4 8-4

Insert Pages

3/4 3-9

3/4 8-4

TABLE 3.3-2

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME</u>
1. Manual Reactor Trip	NOT APPLICABLE
2. Power Range, Neutron Flux	$\leq 0.5$ seconds*
3. Power Range, Neutron Flux, High Positive Rate	NOT APPLICABLE
4. Power Range, Neutron Flux, High Negative Rate	$\leq 0.5$ seconds*
5. Intermediate Range, Neutron Flux	NOT APPLICABLE
6. Source Range, Neutron Flux	NOT APPLICABLE
7. Overtemperature $\Delta T$	$\leq 4.0$ seconds*
8. Overpower $\Delta T$	NOT APPLICABLE
9. Pressurizer Pressure--Low	$\leq 2.0$ seconds
10. Pressurizer Pressure--High	$\leq 2.0$ seconds
11. Pressurizer water Level--High	NOT APPLICABLE

\*Neutron detectors are exempt from response time testing. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input of first electronic component in channel.

TABLE 3.3-2 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME</u>
12. Loss of Flow - Single Loop (Above P-8)	$\leq 1.0$ seconds
13. Loss of Flow - Two Loops (Above P-7 and below P-8)	$\leq 1.0$ seconds
14. Steam Generator Water Level--Low-Low	$\leq 2.0$ seconds
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	NOT APPLICABLE
16. Undervoltage-Reactor Coolant Pumps	$\leq 1.2$ seconds
17. Underfrequency-Reactor Coolant Pumps	$\leq 0.6$ seconds
18. Turbine Trip	
A. Low Fluid Oil Pressure	NOT APPLICABLE
B. Turbine Stop Valve	NOT APPLICABLE
19. Safety Injection Input from ESF	NOT APPLICABLE
20. Reactor Coolant Pump Breaker Position Trip	NOT APPLICABLE
21. Reactor Trip Breakers	NOT APPLICABLE
22. Automatic Trip Logic	NOT APPLICABLE

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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5. Verifying that on a simulated loss of the diesel generator (with offsite power not available), the diesel generator cannot be auto-connected to a loaded bus and that subsequent loading of the diesel generator is in accordance with design requirements.
6. Simulating a loss of offsite power in conjunction with an ESF actuation test signal, and
  - a) Verifying de-energization of the vital busses and load shedding from the vital busses.
  - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the vital busses with permanently connected loads within 13 seconds, energizes the auto-connected emergency (accident) loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. The steady state voltage and frequency of the emergency busses shall be maintained at  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz during this test.
  - c) Verifying that all automatic diesel generator trips, except engine overspeed, lube oil pressure low, 4 KV Bus differential and generator differential, are automatically bypassed upon loss of voltage on the vital bus concurrent with a safety injection actuation signal.
7. Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2860 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 2600 kw. Within 5 minutes after completing this 24-hour test, perform Specification 4.8.1.1.2.c.4. The steady state voltage and frequency shall be maintained at  $4160 \pm 420$  volts and  $60 \pm 1.2$  Hz during this test.
8. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 2760 kw.
9. Verifying that with the diesel generator operating in a test mode (connected to its bus), a simulated safety injection signal overrides the test mode by (1) returning the diesel generator to standby operation and (2) automatically energizes the emergency loads with offsite power.