May 31, 1989

Docket Nos. 50-272/311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: REACTOR TRIP SYSTEM INSTRUMENTATION AND SURVEILLANCE (TAC NOS. 55374/55375 AND 60313/60314)

RE: SALEM GENERATING STATION, UNIT NOS. 1 AND 2

The Commission has issued the enclosed Amendment Nos. 97 and 74 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated October 17, 1985 and supplemented by letter dated December 18, 1986.

These amendments change the Technical Specifications pertaining to the reactor trip system instrumentation and surveillance.

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/

James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 97 to License No. DPR-70
2. Amendment No. 74 to License No. DPR-75
3. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION w/enclosures:

Docket File	MO'Brien (2)	Wanda Jones	Brent Clayton
NRC PDR	OGC	EButcher	EWenzinger
Local PDR	DHagan	AToalston	
PDI-2 Reading	EJordan	ACRS (10)	
WButler	BGrimes	CMiles, GPA/PA	
JStone/MThadani	TMeek (8)	RDiggs, ARM/LFMB	

[STEVE MILT]

CP-1
DF01 cc
1/1

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D	
MO'Brien	JStone		WButler	
4/27/89	4/22/89	5/14/89	5/30/89	

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

May 31, 1989

Docket Nos. 50-272/311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: REACTOR TRIP SYSTEM INSTRUMENTATION AND SURVEILLANCE
(TAC NOS. 55374/55375 AND 60313/60314)

RE: SALEM GENERATING STATION, UNIT NOS. 1 AND 2

The Commission has issued the enclosed Amendment Nos. 97 and 74 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated October 17, 1985 and supplemented by letter dated December 18, 1986.

These amendments change the Technical Specifications pertaining to the reactor trip system instrumentation and surveillance.

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

Sincerely,

James C. Stone

James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 97 to
License No. DPR-70
2. Amendment No. 74 to
License No. DPR-75
3. Safety Evaluation

cc w/enclosures:
See next page

cc:

Mark J. Wetterhahn, Esquire
Conner and Wetterhahn
Suite 1050
1747 Pennsylvania Avenue, NW
Washington, DC 20006

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

Mr. L. K. Miller
General Manager - Salem Operations
Salem Generating Station
P.O. Box 236
Hancocks Bridge, NJ 08038

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

Robert Traee, Mayor
Lower Alloways Creek Township
Municipal Hall
Hancocks Bridge, NJ 08038

Kathy Halvey Gibson, Resident Inspector
Salem Nuclear Generating Station
U.S. Nuclear Regulatory Commission
Drawer I
Hancocks Bridge, NJ 08038

Richard F. Engel
Deputy Attorney General
Department of Law and Public Safety
CN-112
State House Annex
Trenton, NJ 08625

Mr. David M. Scott, Chief
Bureau of Nuclear Engineering
Department of Environmental Protection
State of New Jersey
CN 411
Trenton, NJ 08625

Richard B. McGlynn, Commission
Department of Public Utilities
State of New Jersey
101 Commerce Street
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. Bruce A. Preston, 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

Scott B. Ungerer
MGR. - Joint Generation Projects
Atlantic Electric
P.O. Box 1500
1199 Black Horse Pike
Pleasantville, NJ 08232

Delmarva Power & Light Company
c/o Jack Urban
General Manager, Fuel Supply
800 King Street
P.O. Box 231
Wilmington, DE 19899

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

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-272

SALEM GENERATING STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 97
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 17, 1985, and supplemented on December 18, 1986, 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. 97 , 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 of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1989

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	for JStone:tr		WButler
4/27/89	4/27/89	5/14/89	5/30/89

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 97 , 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 of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 97

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages	Insert Pages
3/4 3-4	3/4 3-4
3/4 3-7	3/4 3-7
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
-	3/4 3-13a

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NUMBER OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
18. Turbine Trip					
Low Autostop Oil Pressure	3	2	2	1	7#
Turbine Stop Valve Closure	4	4	3	1	6#
19. Safety Injection Input from SSPS	2	1	2	1,2	1
20. Reactor Coolant Pump Breaker Position Trip (above P-7)	1/breaker	2	1/breaker per operating loop	1	11
21. Reactor Trip Breakers	2	1	2	1, 2	1###, 14
				3*,4*,5*	13
22. Automatic Trip Logic	2	1	2	1, 2	1
				3*,4*,5*	13

ACTION 9 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in HOT STANDBY within the next 6 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.

ACTION 10 - Deleted.

ACTION 11 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 12 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the reactor trip breakers.

ACTION 13 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the reactor trip breakers within the next hour.

ACTION 14 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and be in at least HOT STANDBY within 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

REACTOR TRIP SYSTEM INTERLOCKS

DESIGNATION	CONDITION AND SETPOINT	FUNCTION
P-6	With 2 of 2 Intermediate Range Neutron Flux Channels $< 6 \times 10^{-11}$ amps.	P-6 prevents or defeats the manual block of source range reactor trip.
P-7	With 2 of 4 Power Range Neutron Flux Channels $\geq$ 11% of RATED THERMAL POWER or 1 of 2 Turbine impulse chamber pressure channels $\geq$ a pressure equivalent to 11% of RATED THERMAL POWER.	P-7 prevents or defeats the automatic block of reactor trip on: Low flow in more than one primary coolant loop, reactor coolant pump undervoltage and under-frequency, pressurizer low pressure, pressurizer high level, and the opening of more than one reactor coolant pump breaker.

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
13. Loss of Flow - Two Loops	S	R	N.A.	1
14. Steam Generator Water Level--Low-Low	S	R	M	1, 2
15. Steam/Feedwater Flow Mismatch & Low Steam Generator Water Level	S	R	M	1, 2
16. Undervoltage - Reactor Coolant Pumps	N.A.	R	M	1
17. Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18. Turbine Trip				
A. Low Autostop Oil Pressure	N.A.	N.A.	S/U(1)	1, 2
B. Turbine Stop Valve Closure	N.A.	N.A.	S/U(1)	1, 2
19. Safety Injection Input from SSPS	N.A.	N.A.	M(4)	1, 2
20. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21. Reactor Trip Breaker	N.A.	N.A.	S/U(10), M(11,13), SA(12,13) and R(14)	1, 2 and *
22. Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2 and *

NOTATION

* - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.

(1) - If not performed in previous 7 days.

(2) - Heat balance only, above 15% of RATED THERMAL POWER.

(3) - Compare incore to excore axial offset above 15% of RATED THERMAL POWER. Recalibrate if absolute difference ≥ 3 percent.

(4) - Manual SSPS functional input check every 18 months.

(5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(7) - Below P-6 (Block of Source Range Reactor Trip) setpoint.

(8) - Deleted

(9) - If not performed in the previous 24 hours, conduct a functional test of the Manual Reactor Trip Switches to verify the Manual Reactor Trip Switch and the independent operation of the U.V. and shunt trip wiring.

(10) - If not performed in the previous 24 hours, conduct a functional test of:

- Reactor Trip Breaker independent operation of U.V. and Shunt Trip (via SSPS)
- Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)

(11) - Perform a functional test of:

- Reactor Trip Breaker independent operation of U.V. Trip and Shunt Trip (via SSPS) and conduct response time testing of U.V. and Shunt Trip/Breakers (event recorders)
- Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)

(12) - Perform periodic maintenance on Reactor Trip Breakers and Reactor Trip Bypass Breakers semiannually as follows:

a. response time testing, (3 times) (visicorder) trend data
b. trip bar lift force measurements
c. UV output force measurement
d. dropout voltage check
e. servicing/lubrication/adjustments (See Table 3.3-1 Notation ###)
f. repeat testing steps (a-d) following any necessary actions at step (e)

TABLE 4.3-1 (Continued)

NOTATION

(13) - Verify operation of Bypass Breakers Shunt Trip function from local pushbutton while breaker is in the test position prior to placing breaker in service.

(14) - Perform a functional test of the Bypass Breakers U.V. Attachment via the SSPS.

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

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-311

SALEM GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 74
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 17, 1985, and supplemented on December 18, 1986, 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. 74 , 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 of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1989

PDI-2/LA MO'Brien 4/27/89	PDI-2/PM JStone:tr 4/27/89	OGC 5/4/89	PDI-2/D WButler 5/30/89

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 74 , 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 of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 74

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Pages	Insert Pages
3/4 3-4	3/4 3-4
3/4 3-7	3/4 3-7
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
-	3/4 3-13a

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NUMBER OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
18. Turbine Trip					
a. Low Autostop Oil Pressure	3	2	2	1	7#
b. Turbine Stop Valve Closure	4	4	4	1	7#
19. Safety Injection Input from SSPS	2	1	2	1,2	1
20. Reactor Coolant Pump Breaker Position Trip (above P-7)	1/breaker	2	1/breaker per operating loop	1	11
21. Reactor Trip Breakers	2	1	2	1, 2	1###, 14
				3*,4*,5*	13
22. Automatic Trip Logic	2	1	2	1, 2	1
				3*,4*,5*	13

ACTION 9 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in HOT STANDBY within the next 6 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.

ACTION 10 - Deleted.

ACTION 11 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 12 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the reactor trip breakers.

ACTION 13 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the reactor trip breakers within the next hour.

ACTION 14 - With one of the diverse trip features (Undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and be in at least HOT STANDBY within 6 hours. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

REACTOR TRIP SYSTEM INTERLOCKS

DESIGNATION	CONDITION AND SETPOINT	FUNCTION
P-6	With 2 of 2 Intermediate Range Neutron Flux Channels $< 6 \times 10^{-11}$ amps.	P-6 prevents or defeats the manual block of source range reactor trip.
P-7	With 2 of 4 Power Range Neutron Flux Channels $\geq$ 11% of RATED THERMAL POWER or 1 of 2 Turbine impulse chamber pressure channels $\geq$ a pressure equivalent to 11% of RATED THERMAL POWER.	P-7 prevents or defeats the automatic block of reactor trip on: Low flow in more than one primary coolant loop, reactor coolant pump undervoltage and under-frequency, pressurizer low pressure, pressurizer high level, and the opening of more than one reactor coolant pump breaker.

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
13. Loss of Flow - Two Loops	S	R	N.A.	1
14. Steam Generator Water Level--Low-Low	S	R	M	1, 2
15. Steam/Feedwater Flow Mismatch & Low Steam Generator Water Level	S	R	M	1, 2
16. Undervoltage - Reactor Coolant Pumps	N.A.	R	M	1
17. Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18. Turbine Trip				
a. Low Autostop Oil Pressure	N.A.	N.A.	S/U(1)	N.A.
b. Turbine Stop Valve Closure	N.A.	N.A.	S/U(1)	N.A.
19. Safety Injection Input from SSPS	N.A.	N.A.	M(4)	1, 2
20. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21. Reactor Trip Breaker	N.A.	N.A.	S/U(10), M(11,13), SA(12,13) and R(14)	1, 2 and *
22. Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2 and *

NOTATION

* - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.

(1) - If not performed in previous 7 days.

(2) - Heat balance only, above 15% of RATED THERMAL POWER.

(3) - Compare incore to excore axial offset above 15% of RATED THERMAL POWER. Recalibrate if absolute difference ≥ 3 percent.

(4) - Manual SSPS functional input check every 18 months.

(5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(7) - Below P-6 (Block of Source Range Reactor Trip) setpoint.

(8) - Deleted

(9) - If not performed in the previous 24 hours, conduct a functional test of the Manual Reactor Trip Switches to verify the Manual Reactor Trip Switch and the independent operation of the U.V. and shunt trip wiring.

(10) - If not performed in the previous 24 hours, conduct a functional test of:

- Reactor Trip Breaker independent operation of U.V. and Shunt Trip (via SSPS)
- Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)

(11) - Perform a functional test of:

- Reactor Trip Breaker independent operation of U.V. Trip and Shunt Trip (via SSPS) and conduct response time testing of U.V. and Shunt Trip/Breakers (event recorders)
- Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)

(12) - Perform periodic maintenance on Reactor Trip Breakers and Reactor Trip Bypass Breakers semiannually as follows:

a. response time testing, (3 times) (visicorder) trend data
b. trip bar lift force measurements
c. U.V. output force measurement
d. dropout voltage check

NOTATION

e. servicing/lubrication/adjustments (See Table 3.3-1 Notation ###)
f. repeat testing steps (a-d) following any necessary actions at step (e)

(13) - Verify operation of Bypass Breakers Shunt Trip function from local pushbutton while breaker is in the test position prior to placing breaker in service.

(14) - Perform a functional test of the Bypass Breakers U.V. Attachment via the SSPS.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 97 AND 74 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 GENERATING STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-272 AND 50-311

1.0 INTRODUCTION

By letter dated October 17, 1985 and supplemented December 18, 1986, Public Service Electric & Gas Company submitted proposed changes to the Salem Technical Specifications pertaining to the reactor trip system instrumentation limiting conditions for operation, Table 3.3-1 and surveillance requirements, Table 4.3-1 that were responsive to Item 4.3 of Generic Letter 83-28. Guidance for these changes was provided by Generic Letter 85-09 (MPA B-90). Generic Letter 85-09 concluded that Technical Specification changes should be proposed by licensees to explicitly require independent testing of the undervoltage and shunt trip attachments of the reactor trip breakers during power operation, testing of bypass breakers prior to use, and independent testing of the control room manual switch contacts and wiring during each refueling outage. Operability requirements for the diverse trip features (undervoltage and shunt trip attachments) were also included.

2.0 EVALUATION

The licensee's proposed Technical Specification changes submitted by letter dated October 17, 1985 were evaluated in our Safety Evaluation Report dated June 6, 1986. The proposed changes were found to be consistent with Generic Letter 85-09 and acceptable except as indicated below:

No changes were proposed by the licensee for Reactor Trip Breakers (Functional Unit 21) or Automatic Trip Logic (Function Unit 22) of Table 3.3-1, Reactor Trip System Instrumentation, that defines the

Limiting Conditions for Operation of the Reactor Trip System. However, Generic Letter 85-09, for each of these functional units, requires the ACTION for MODES 3*, 4* and 5* to be separated from the ACTION for MODES 1 and 2. [1/] For MODES 3*, 4* and 5* the ACTION required should be similar to Action 13 of Generic Letter 85-09 (i.e. with one less than the minimum number of required channels operable, restore the inoperable channel to operate within 48 hours or open the reactor trip breakers within one hour). For MODES 1 and 2 the ACTION required is to be in hot standby (MODE 3) within 6 hours. In addition to the indicated ACTION 1 for the Reactor Trip Breakers, an action similar to Action 14 of Generic Letter 85-09 (i.e. action to be taken if the undervoltage or shunt trip is inoperable) should be added, for MODES 1 and 2.

The staff believes the above changes for both Reactor Trip Breakers and Automatic Trip Logic for MODES 3*, 4* and 5* are appropriate because ACTION 1 requires a change to Hot Standby (Mode 3) within 6 hours if the number of OPERABLE channels is one less than the minimum required. A change to Hot Standby is not appropriate when in Modes 3*, 4* and 5* because Hot Standby is Mode 3 and would require going to a higher operating mode if in Mode 4* or 5* (Mode 1 is Power Operation and Mode 5 is Cold Shutdown).

The addition of ACTION 14 to Reactor Trip Breakers in Modes 1 and 2 is necessary to define the Action to be taken when one of the diverse trip features (undervoltage trip or shunt trip) of the reactor trip breakers is inoperable. The ACTION to be taken is to restore to OPERABLE within 48 hours or declare the breaker INOPERABLE and be in Hot Shutdown within 6 hours.

The licensee's December 18, 1986 submittal corrected the deficiencies as discussed above and therefore brought the request into compliance with Generic Letter 85-09. For Table 4.3-1, Reactor Trip System Surveillance Requirements, we find the licensee's proposed changes consistent with, and more exact than, those of Generic Letter 85-09. These proposed changes are therefore acceptable.

We find the Technical Specification changes proposed by Public Service Electric and Gas Company in their letters dated October 17, 1985 and December 18, 1986 for the Salem Generating Station, Units 1 and 2, to be consistent with Generic Letter 85-09 and therefore acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change to a requirement with respect to the installation or use of a facility component located within the restricted

1/ The * means that the action applies when the reactor trip breakers are in the closed position and the control rod drive system is capable of rod withdrawal.

area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The 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. 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.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (51 FR 5277) on February 12, 1986 and (54 FR 28183) on April 27, 1989 and consulted with the State of New Jersey. No public comments were received and the State of New Jersey did not have any comments.

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: A. Toalston and J. Stone

Dated: May 31, 1989