



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

APR 10 1987

Docket Nos. 50-272  
and 50-311

Posted  
Ammt. 79  
to DPR-70  
(See Collection letter  
of 3-12-90)

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

Dear Mr. McNeill:

The Commission has issued the enclosed Amendment Nos. 79 and 53 to Facility Operating License Nos. DPR-70 and DPR-75 for Salem Nuclear Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications in response to your application dated September 21, 1984 and supplemented by letter dated August 8, 1986.

The amendments revise the technical specifications Appendix A sections regarding accident monitoring Instrumentation and Radiation Monitoring Instrumentation.

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

Sincerely,

A handwritten signature in cursive script that reads "Donald C. Fischer".

Donald C. Fischer, Senior Project Manager  
PWR Project Directorate #5  
Division of PWR Licensing-A

## Enclosures:

1. Amendment No. 79 to DPR-70
2. Amendment No. 53 to DPR-75
3. Safety Evaluation

cc w/enclosure:  
See next page

Mr. C. A. McNeill  
Public Service Electric & Gas Company

Salem Nuclear Generating Station

cc:

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

Richard B. McGlynn, Commission  
Department of Public Utilities  
State of New Jersey  
101 Commerce Street  
Newark, New Jersey 07102

Richard Fryling, Jr., Esquire  
Assistant General Solicitor  
Public Service Electric & Gas Company  
P. O. Box 570 - Mail Code T5E  
Newark, New Jersey 07101

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Gene Fisher, Bureau of Chief  
Bureau of Radiation Protection  
380 Scotch Road  
Trenton, New Jersey 08628

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

Mr. John M. Zupko, Jr.  
General Manager - Salem Operations  
Public Service Electric & Gas Company  
Post Office Box E  
Hancocks Bridge, New Jersey 08038

Mr. Bruce A. Preston, Manager  
Nuclear Licensing & Regulation  
Public Service Electric & Gas Company  
P. O. Box 236  
Hancocks Bridge, New Jersey 08038

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

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

Thomas Kenny, Resident Inspector  
Salem Nuclear Generating Station  
U.S. Nuclear Regulatory Commission  
Drawer I  
Hancocks Bridge, New Jersey 08038

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

Frank Casolito, Action Chief  
Bureau of Radiation Protection  
Department of Environmental Protection  
380 Scotch Road  
Trenton, New Jersey 08628



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. 79  
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 September 21, 1984 as supplemented by letter dated August 8, 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;
  - 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

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 79, 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



Victor Nerses, Acting Director  
PWR Project Directorate #5  
Division of PWR Licensing-A

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: APR 10 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 79

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages.

Remove Pages

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TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACT</u>
b. Phase "B" Isolation					
1) Manual	2 sets of 2	1 set of 2	2 sets of 2	1, 2, 3, 4	18
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
3) Containment Pressure--High-High	4	2	3	1, 2, 3	16
c. Purge and Exhaust Isolation					
1) Manual	2	1	2	1, 2, 3, 4	17
2) Containment Atmosphere Radioactivity-High		per table 3.3-6			

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Amendment No. 79

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
2. Containment Atmosphere Gaseous Radioactivity		per Table 3.3-6
4. STEAM LINE ISOLATION		
a. Manual	Not Applicable	Not Applicable
b. Automatic Actuation Logic	Not Applicable	Not Applicable
c. Containment Pressure--High-High	$\leq 23.5$ psig	$\leq 24$ psig
d. Steam Flow in Two Steam Lines -- High Coincident with $T_{avg}$ -- low-low or Steam Line Pressure--low	$\leq$ A function defined as follows: A $\Delta p$ corresponding to 40% of full steam flow between 0% and 20% load and then a $\Delta p$ increasing linearly to a $\Delta p$ corresponding to 110% of full steam flow at full load  $T_{avg} \geq 543^\circ\text{F}$ $\geq 500$ psig steam line pressure	$\leq$ A function defined as follows: A $\Delta p$ corresponding to 44% of full steam flow between 0% and 20% load and then a $\Delta p$ increasing linearly to a $\Delta p$ corresponding to 111.5% of full steam flow at full load  $T_{avg} \geq 541^\circ\text{F}$ $\geq 480$ psig steam line pressure

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNELS CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) From Safety Injection Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
b. Phase "B" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
3) Containment Pressure-- High-High	S	R	M(3)	1, 2, 3
c. Containment Ventilation Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
3) Containment Radioactivity -- High	per table 4.3-3			

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TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
<b>1. AREA MONITORS</b>					
a. Fuel Storage Area - R5/R9	1	*	$< 15 \text{ mR/hr}$	$10^{-1} - 10^4 \text{ mR/hr}$	19
b. Containment Area - R44	2	1, 2, 3 & 4	$< 10^3 \text{ R/hr}$	$1 - 10^7 \text{ R/hr}$	23
<b>2. PROCESS MONITORS</b>					
<b>a. Containment</b>					
<b>1) Gaseous Activity</b>					
a) Purge & Pressure - Vacuum Relief Isolation - R12a	1#	6 and 1, 2, 3, 4 & 5	$\leq 2 \times \text{background}$ per Specification 3.3.3.9	$10^1 - 10^6 \text{ cpm}$	22 & 23
b) RCS Leakage Detection - R12a		1, 2, 3 & 4	N/A	$10^1 - 10^6 \text{ cpm}$	20
<b>2) Air Particulate Activity</b>					
a) Purge & Pressure - Vacuum Relief Isolation - R11a	1	6	$\leq 2 \times \text{background}$	$10^1 - 10^6 \text{ cpm}$	22
b) RCS Leakage Detection - R11a		1, 2, 3 & 4	N/A	$10^1 - 10^6 \text{ cpm}$	20
<b>b. Noble Gas Effluent Monitors</b>					
<b>1) Medium Range Auxiliary Building Exhaust System (Plant Vent) - R45B</b>					
	1	1, 2, 3 & 4	$\leq 3.0 \times 10^{-2} \text{ uCi/cm}^3$ (Alarm only)	$10^{-3} - 10^1 \text{ uCi/cm}^3$	23
<b>2) High Range Auxiliary Building Exhaust System (Plant Vent) - R45C</b>					
	1	1, 2, 3 & 4	$\leq 1.0 \times 10^2 \text{ uCi/cm}^3$ (Alarm only)	$10^{-1} - 10^5 \text{ uCi/cm}^3$	23

\*With fuel in the storage pool or building.

#The unit vent sampling monitor (R-41c) may also function in this capacity when the purge/pressure-vacuum relief isolation valves are open.

TABLE 3.3-6 (CONTINUED)

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
2. PROCESS MONITORS					
b. Noble Gas Effluent Monitors					
3) Main Steamline Discharge (Safety Valves and Atmospheric Steam Dumps) - R46	1/ MS Line	1, 2, 3 & 4	< 10 mR/hr (alarm only)	1 - 10 <sup>4</sup> mR/hr	23
4) Condenser Exhaust System - R15	1	1, 2, 3 & 4	< 1.27 x 10 <sup>4</sup> cpm (alarm only)	1 - 10 <sup>6</sup> cpm	23

TABLE 3.3-6 (Continued)

TABLE NOTATION

- ACTION 19 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 20 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 23 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:
- 1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or
  - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	<u>INSTRUMENT</u>	<u>CHANNELS CHECKS</u>	<u>SOURCE CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1.	AREA MONITORS					
a.	Fuel Storage Area - R5/R9	S	M	R	Q	*
b.	Containment Area - R44	S	M	R	Q	1, 2, 3 & 4
2.	PROCESS MONITORS					
a.	Containment Monitors					
1)	Gaseous Activity					
a)	Purge & Pressure Vacuum Relief Isolation - R12a	S	M	R	Q	1, 2, 3, 4, 5 & 6
b)	RCS Leakage Detection - R12a	S	M	R	Q	1, 2, 3 & 4
2)	Air Particulate Activity					
a)	Purge & Pressure - Vacuum Relief Isolation - R11a	S	M	R	Q	1, 2, 3, 4 & 6
b)	RCS Leakage Detection - R11a	S	M	R	Q	1, 2, 3 & 4
b.	Noble Gas Effluent Monitors					
1)	Medium Range Auxiliary Building Exhaust System (plant vent) - R45B	S	M	R	Q	1, 2, 3 & 4
2)	High Range Auxiliary Building Exhaust System (plant vent) - R45C	S	M	R	Q	1, 2, 3 & 4

\*With fuel in the storage pool or building.

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TABLE 4.3-3 (CONTINUED)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	<u>INSTRUMENT</u>	<u>CHANNELS CHECKS</u>	<u>SOURCE CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
2.	PROCESS MONITORS					
b.	Noble Gas Effluent Monitors					
	3) Main Steamline Discharge (Safety valves & atmospheric dumps) - R46	S	M	R	Q	1, 2, 3 & 4
	4) Condenser Exh. Sys. - R15	S	M	R	Q	1, 2, 3 & 4

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7 The accident monitoring instrumentation channels shown in Table 3.3-11a and Table 3.3-11b shall be operable.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. As shown in Table 3.3-11a and Table 3.3-11b.
- b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.7 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK AND CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-11.

TABLE 3.3-11a

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>ACTION</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	4 (1/loop)	2	1
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	4 (1/loop)	2	1
3. Reactor Coolant Pressure (Wide Range)	2	2	1
4. Pressurizer Water Level	3 (hot)	2	1
5. Steam Line Pressure	3/Steam Generator	2/Steam Generator	1
6. Steam Generator Water Level (Narrow Range)	3/Steam Generator	2/Steam Generator	1
7. Steam Generator Water Level (Wide Range)	4/(1/Steam Generator)	4 (1/Steam Generator)	1
8. Refueling Water Storage Tank Water Level	2	2	1
9. Boric Acid Tank Solution Level	2 (1/tank)	2 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	4 (1/Steam Generator)	4
11. Reactor Coolant System Subcooling Margin Monitor	2*	2*	5
12. PORV Position Indicator	2/valve**	2/valve**	1

TABLE 3.3-11a (CONTINUED)  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>ACTION</u>
13. PORV Block Valve Position Indicator	2/valve**	2/valve**	1
14. Pressurizer Safety Valve Position Indicator	2/valve**	2/valve**	1
15. Containment Pressure - Narrow Range	4	2	1
16. Containment Pressure - Wide Range	2	2	7
17. Containment Water Level - Wide Range	2	2	7
18. Core Exit Thermocouples	65	4/core quadrant	1

(\*) Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.

(\*\*) Total number of channels is considered to be two (2) with one (1) of the channels being any one (1) of the following alternate means of determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level Operable.



TABLE 3.3-11b

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>MINIMUM NO. OF CHANNELS</u>	<u>ACTION</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	4 (1/loop)	1	2
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	4 (1/loop)	1	2
3. Reactor Coolant Pressure (Wide Range)	2	1	2
4. Pressurizer Water Level	3 (hot)	1	2
5. Steam Line Pressure	3/Steam Generator	1/Steam Generator	2
6. Steam Generator Water Level (Narrow Range)	3/Steam Generator	1/Steam Generator	2
7. Steam Generator Water Level (Wide Range)	4/(1/Steam Generator)	3 (1/Steam Generator)	2
8. Refueling Water Storage Tank Water Level	2	1	2
9. Boric Acid Tank Solution Level	2 (1/tank)	1 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	3 (1/Steam Generator)	6
11. Reactor Coolant System Subcooling Margin Monitor	2*	1	6
12. PORV Position Indicator	2/valve**	1	2

TABLE 3.3-11b (CONTINUED)

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>MINIMUM NO. OF CHANNELS</u>	<u>ACTION</u>
13. PORV Block Valve Position Indicator	2/valve**	1	2
14. Pressurizer Safety Valve Position Indicator	2/valve**	1	2
15. Containment Pressure - Narrow Range	4	1	2
16. Containment Pressure - Wide Range	2	1	2
17. Containment Water Level - Wide Range	2	1	2
18. Core Exit Thermocouples	65	2/core quadrant	2

(\*) Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.

(\*\*) Total number of channels is considered to be two (2) with one (1) of the channels being any one (1) of the following alternate means of determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level Operable.

TABLE 3.3-11a & b (continued)

TABLE NOTATION

- ACTION 1 With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11a, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- ACTION 2 With the number of OPERABLE accident monitoring channels less than the MINIMUM Number of Channels shown in Table 3.3-11b, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.
- ACTION 3 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed provided that the Boric Acid Tank associated with the remaining OPERABLE channel satisfies all requirements of Specification 3.1.2.8.a.
- ACTION 4 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operations may proceed provided that an OPERABLE Steam Generator Wide Range Level channel is available as an alternate means of indication for the Steam Generator with no OPERABLE Auxiliary Feedwater Flow Rate channel.
- ACTION 5 With the number of OPERABLE channels less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed provided that Steam Tables are available in the Control Room and the following Required Channels shown in Table 3.3-11a are OPERABLE to provide an alternate means of calculating Reactor Coolant System subcooling margin:
- a. Reactor Coolant Outlet Temperature - THOT (Wide Range)
  - b. Reactor Coolant Pressure (Wide Range)

TABLE 3.3-11a & b (continued)

TABLE NOTATION

ACTION 6 With the number of OPERABLE channels less than the Minimum Number of channels shown in Table 3.3-11b, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 7 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed until the next CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

TABLE 4.3-11  
SURVEILLANCE REQUIREMENTS FOR  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>CHANNEL CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	M	R	NA
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	M	R	NA
3. Reactor Coolant Pressure (Wide Range)	M	R	NA
4. Pressurizer Water Level	M	R	NA
5. Steam Line Pressure	M	R	NA
6. Steam Generator Water Level (Narrow Range)	M	R	NA
7. Steam Generator Water Level (Wide Range)	M	R	NA
8. Refueling Water Storage Tank Water Level	M	R	NA
9. Boric Acid Tank Solution Level	M	R	NA
10. Auxiliary Feedwater Flow Rate	SU#	R	NA
11. Reactor Coolant System Subcooling Margin Monitor	M	N/A*	NA

#Auxiliary Feedwater System is used on each startup and flow rate indication is verified at that time.

\*The instruments used to develop RCS subcooling margin are calibrated on an 18 month cycle; the monitor will be compared quarterly with calculated subcooling margin for known input values.

TABLE 4.3-11 (CONTINUED)  
SURVEILLANCE REQUIREMENTS FOR  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
12. PORV Position Indicator	M	NA	Q
13. PORV Block Valve Position Indicator	M	NA	Q
14. Pressurizer Safety Valve Position Indicator	M	NA	R
15. Containment Pressure - Narrow Range	M	NA	NA
16. Containment Pressure - Wide Range	M	R	NA
17. Containment Water Level - Wide Range	M	R	NA
18. Core Exit Thermocouples	M	R	NA

## INSTRUMENTATION

### RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.9 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the (ODCM).

APPLICABILITY: As shown in Table 3.3-13

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semi-annual radioactive effluent release report why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3, 3.0.4, and 6.9.1.9.b are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.9 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, AND CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. WASTE GAS HOLDUP SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (1-R41C)	1	*	31
b. Oxygen Monitor	1	**	35
2. CONTAINMENT PURGE AND PRESSURE - VACUUM RELIEF			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (1-R41C or 1-R12A)	1	***	34
3. PLANT VENT HEADER SYSTEM#			
a. Noble Gas Activity Monitor (1-R16 or 1-R41C)	1	*	33
b. Iodine Sampler	1	*	5
c. Particulate Sampler	1	*	36
d. Flow Rate Monitor	1	*	32
e. Sampler Flow Rate Monitor	1	*	32

# The following process streams are routed to the plant vent where they are effectively monitored by the instruments described:

- (a) Condenser Air Removal System
- (b) Auxiliary Building Ventilation System
- (c) Fuel Handling Building Ventilation System
- (d) Radwaste Area Ventilation System
- (e) Containment Purges

Action item #34 applies to the purging of the containment only.



TABLE 3.3-13 (Continued)

TABLE NOTATION

ACTION 31 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

- a. At least two independent samples of the tank's contents are analyzed, and
- b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valving lineup;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 32 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours.

ACTION 33 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 8 hours and these samples are analyzed for gross activity within 24 hours.

ACTION 34 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.

\* At all times, other than when the line is valved out and locked.

\*\* During waste gas holdup system operation.

\*\*\* During containment purges or containment pressure - vacuum reliefs.

TABLE 3.3-13 (Continued)

TABLE NOTATION

- ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the waste gas holdup system may continue provided grab samples are collected at least once per 24 hours and analyzed within the following 4 hours.
- ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

TABLE 4.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNELS OPERABLE</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. WASTE GAS HOLDUP SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (1-R41C)	P	P	R(3)	Q(1)	*
b. Oxygen Monitor	D	N.A.	Q(4)	M	**
2. CONTAINMENT PURGE AND PRESSURE - VACUUM RELIEF					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (1-R41C or 1-R12A)	P	P	R(3)	Q(1)	***
3. PLANT VENT HEADER SYSTEM#					
a. Noble Gas Activity Monitor (1-R16 or 1-R41C)	D	M	R(3)	Q(2)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate Monitor	D	N.A.	R	N.A.	*
e. Sampler Flow Rate Monitor	W	N.A.	R	N.A.	*

# The following process streams are routed to the plant vent where they are effectively monitored by the instruments described:

- (a) Condenser Air Removal System
- (b) Auxiliary Building Ventilation System
- (c) Fuel Handling Building Ventilation System
- (d) Radwaste Area Ventilation System
- (e) Containment Purges

TABLE 4.3-13 (Continued)

TABLE NOTATION

- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exist:
  1. Instrument indicates measured levels at or above the alarm/trip setpoint.
  2. Circuit failure. (Loss of Power)
  3. Instrument indicates a downscale failure. (Alarm Only)
  
- (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:
  1. Instrument indicates measured levels at or above the alarm/trip setpoint.
  2. Circuit failure. (Loss of Power)
  3. Instrument indicates a downscale failure. (Indication on instrument drawer in Control Equipment Room only for 1R16)
  4. Instrument controls not set in operate mode. (Applicable to 1-R16 only)
  
- (3) The initial CHANNEL CALIBRATION was performed using appropriate liquid or gaseous calibration sources obtained from reputable suppliers. The activity of the calibration sources were reconfirmed using a multi-channel analyzer which was calibrated using one or more NBS standards.
  
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
  1. One volume percent oxygen, balance nitrogen, and
  2. Four volume percent oxygen, balance nitrogen.

\* At all times

\*\* During waste gas holdup system operation.

\*\*\* During containment purge or containment pressure-vacuum relief

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. 53  
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 September 21, 1984 as supplemented by letter, dated August 8, 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;
  - 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. 53, 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



Victor Nerses, Acting Director  
PWR Project Directorate #5  
Division of PWR Licensing-A

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: APR 10 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 53

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages.

Remove Pages

Insert Pages

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TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
b. Phase "B" Isolation					
1) Manual	2 sets of 2	1 set of 2	2 sets of 2	1, 2, 3, 4	18
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
3) Containment Pressure--High-High	4	2	3	1, 2, 3	16
c. Containment Ventilation Isolation					
1) Manual	2	1	2	1, 2, 3, 4	17
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
3) Containment Atmosphere Gaseous Radioactivity-High		per table 3.3-6			



TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
4. STEAM LINE ISOLATION					
a. Manual	2/steam line	1/steam line	1/operating steam line	1, 2, 3	21
b. Automatic Actuation Logic	2***	1	2	1, 2, 3	20
c. Containment Pressure-- <u>High-High</u>	4	2	3	1, 2, 3	16
d. Steam Flow in Two Steam Lines--High					
Four Loops Operating	2/steam line	1/steam line any 2 steam lines	1/steam line		14*
COINCIDENT WITH EITHER T <sub>avg</sub> --Low-Low				1, 2, 3##	
Four Loops Operating	1 T <sub>avg</sub> /loop	1 T <sub>avg</sub> in any 2 loops	1 T <sub>avg</sub> in any 3 loops		14*

\*\*\* The automatic actuation logic includes two redundant solenoid operated vent valves for each Main Steam Isolation Valve. One vent valve on any one Main Steam Isolation Valve may be isolated without affecting the function of the automatic actuation logic provided the remaining seven solenoid vent valves remain operable. The isolated MSIV vent valve shall be returned to OPERABLE status upon the first entry into MODE 5 following determination that the vent valve is inoperable. For any condition where more than one of the eight solenoid vent valves are inoperable, entry into ACTION 20 is required.

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
Three Loops	1 T <sub>avg</sub> /operating loop	1### T <sub>avg</sub> in any operating loop	1 T <sub>avg</sub> in any two operating loops		15
OR, COINCIDENT WITH					
Steam Line Pressure-Low				1, 2, 3##	
Four Loops - Operating	1 pressure/loop	1 pressure in any 2 loops	1 pressure in any 3 loops		14*
Three Loops Operating	1 pressure/operating loop	1### pressure in any operating loop	1 pressure in any 2 operating loops		15
5. TURBINE TRIP & FEEDWATER ISOLATION					
a. Steam Generator Water level-- High-High	3/loop	2/loop in any operating loop	2/loop in each operating loop	1, 2, 3	14*
6. SAFEGUARDS EQUIPMENT CONTROL SYSTEM (SEC)	3	2	3	1, 2, 3, 4	13
7. UNDERVOLTAGE, VITAL BUS					
a. Loss of Voltage	3	2	3	1, 2, 3	14*
b. Sustained Degraded Voltage	3	2	3	1, 2, 3	14*

SALEM - UNIT 2

3/4 3-20

Amendment No. 53

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
2. Containment Atmosphere Gaseous Radioactivity		per Table 3.3-6
4. STEAM LINE ISOLATION		
a. Manual	Not Applicable	Not Applicable
b. Automatic Actuation Logic	Not Applicable	Not Applicable
c. Containment Pressure--High-High	$\leq 23.5$ psig	$\leq 24$ psig
d. Steam Flow in Two Steam Lines -- High Coincident with $T_{avg}$ -- low-low or Steam Line Pressure--low	$\leq$ A function defined as follows: A $\Delta p$ corresponding to 40% of full steam flow between 0% and 20% load and then a $\Delta p$ increasing linearly to a $\Delta p$ corresponding to 110% of full steam flow at full load  $T_{avg} \geq 543^\circ\text{F}$ $\geq 500$ psig steam line pressure	$\leq$ A function defined as follows: A $\Delta p$ corresponding to 44% of full steam flow between 0% and 20% load and then a $\Delta p$ increasing linearly to a $\Delta p$ corresponding to 111.5% of full steam flow at full load  $T_{avg} \geq 541^\circ\text{F}$ $\geq 480$ psig steam line pressure

SALEM - UNIT 2

3/4 3-26

Amendment No. 53

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNELS CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) From Safety Injection Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
b. Phase "B" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
3) Containment Pressure-- High-High	S	R	M(3)	1, 2, 3
c. Containment Ventilation Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3, 4
3) Containment Radioactivity -- High	per table 4.3-3			

SALEM - UNIT 2

3/4 3-34

Amendment No. 53

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Area - R5/R9	1	*	$\leq 15$ mR/hr	$10^{-1} - 10^4$ mR/h	r (
b. Containment Area - R44	2	1, 2, 3 & 4	$\leq 10^3$ R/hr	1 - $10^7$ R/h	r 2b
2. PROCESS MONITORS					
a. Containment					
1) Gaseous Activity					
a) Purge & Pressure-Vacuum Relief Isolation - R12a	1#	6 and 1, 2, 3, 4 & 5	$\leq 2$ x background per Specification 3.3.3.9	$10^1 - 10^6$ cpm	26
b) RCS Leakage Detection - R12a		1, 2, 3 & 4	N/A	$10^1 - 10^6$ cpm	24
2) Air Particulate Activity					
a) Purge & Pressure Vacuum Relief Isolation - R11a	1	6	$\leq 2$ x background	$10^1 - 10^6$ cpm	25 (
b) RCS Leakage Detection - R11a		1, 2, 3 & 4	N/A	$10^1 - 10^6$ cpm	24
b. Noble Gas Effluent Monitors					
1) Medium Range Auxiliary Building Exhaust System (Plant Vent) - R45B	1	1, 2, 3 & 4	$\leq 3.0 \times 10^{-2}$ uCi/cm <sup>3</sup> (Alarm only)	$10^{-3} - 10^1$ uCi/cm <sup>3</sup>	26
2) High Range Auxiliary Building Exhaust System (Plant Vent) - R45C	1	1, 2, 3 & 4	$\leq 1.0 \times 10^2$ uCi/cm <sup>3</sup> (Alarm only)	$10^{-1} - 10^5$ uCi/cm <sup>3</sup>	26

\*With fuel in the storage pool or building.

#The unit vent sampling monitor (R-41c) may also function in this capacity when the purge/pressure-vacuum relief isolation valves are open.

TABLE 3.3-6 (CONTINUED)  
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
2. PROCESS MONITORS					
b. Noble Gas Effluent Monitors					
3) Main Steamline Discharge (Safety Valves and Atmospheric Steam Dumps) - R46	1/ MS Line	1, 2, 3 & 4	10 mR/hr (alarm only)	1 - 10 <sup>4</sup> mR/hr	7
4) Condenser Exhaust System - R15	1	1, 2, 3 & 4	≤ 7.12 x 10 <sup>4</sup> cpm (alarm only)	1 - 10 <sup>6</sup> cpm	26

SALEM - UNIT 2

3/4 3-39a

Amendment No. 53

TABLE 3.3-6 (Continued)

TABLE NOTATION

- ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 25 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 26 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:
- 1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or
  - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	<u>INSTRUMENT</u>	<u>CHANNELS CHECKS</u>	<u>SOURCE CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1.	AREA MONITORS					
	a. Fuel Storage Area - R5/R9	S	M	R	Q	*
	b. Containment Area - R44	S	M	R	Q	1, 2, 3 & 4
2.	PROCESS MONITORS					
	a. Containment Monitors					
	1) Gaseous Activity					
	a) Purge & Pressure Vacuum Relief Isolation - R12a	S	M	R	Q	1, 2, 3, 4, 5 & 6
	b) RCS Leakage Detection - R12a	S	M	R	Q	1, 2, 3 & 4
	2) Air Particulate Activity					
	a) Purge & Pressure - Vacuum Relief Isolation - R11a	S	M	R	Q	1, 2, 3, 4 & 6
	b) RCS Leakage Detection - R11a	S	M	R	Q	1, 2, 3 & 4
	b. Noble Gas Effluent Monitors					
	1) Medium Range Auxiliary Building Exhaust System (plant vent) - R45B	S	M	R	Q	1, 2, 3 & 4
	2) High Range Auxiliary Building Exhaust System (plant vent) - R45C	S	M	R	Q	1, 2, 3 & 4

\*With fuel in the storage pool or building.



TABLE 4.3-3 (CONTINUED)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	<u>INSTRUMENT</u>	<u>CHANNELS CHECKS</u>	<u>SOURCE CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
2.	PROCESS MONITORS					
b.	Noble Gas Effluent Monitors					
	3) Main Steamline Discharge (Safety valves & atmospheric dumps) - R46	S	M	R	Q	1, 2, 3 & 4
	4) Condenser Exh. Sys. - R15	S	M	R	Q	1, 2, 3 & 4

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7 The accident monitoring instrumentation channels shown in Table 3.3-11a and Table 3.3-11b shall be operable.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. As shown in Table 3.3-11a and Table 3.3-11b.
- b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.7 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK AND CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-11.

TABLE 3.3-11a

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>ACTION</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	4 (1/loop)	2	1
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	4 (1/loop)	2	1
3. Reactor Coolant Pressure (Wide Range)	2	2	1
4. Pressurizer Water Level	3 (hot)	2	1
5. Steam Line Pressure	3/Steam Generator	2/Steam Generator	1
6. Steam Generator Water Level (Narrow Range)	3/Steam Generator	2/Steam Generator	1
7. Steam Generator Water Level (Wide Range)	4/(1/Steam Generator)	4 (1/Steam Generator)	1
8. Refueling Water Storage Tank Water Level	4	2	1
9. Boric Acid Tank Solution Level	2 (1/tank)	2 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	4 (1/Steam Generator)	4
11. Reactor Coolant System Subcooling Margin Monitor	2*	2*	5
12. PORV Position Indicator	2/valve**	2/valve**	1

TABLE 3.3-11a (CONTINUED)  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>ACTION</u>
13. PORV Block Valve Position Indicator	2/valve**	2/valve**	1
14. Pressurizer Safety Valve Position Indicator	2/valve**	2/valve**	1
15. Containment Pressure - Narrow Range	4	2	7
16. Containment Pressure - Wide Range	2	2	7
17. Containment Water Level - Wide Range	2	2	7
18. Core Exit Thermocouples	65	4/core quadrant	1

(\*) Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.

(\*\*) Total number of channels is considered to be two (2) with one (1) of the channels being any one (1) of the following alternate means of determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature, Pressurizer Relief Tank Level Operable.

TABLE 3.3-11b

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>MINIMUM NO. OF CHANNELS</u>	<u>ACTION</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	4 (1/loop)	1	2
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	4 (1/loop)	1	2
3. Reactor Coolant Pressure (Wide Range)	2	1	2
4. Pressurizer Water Level	3 (hot)	1	2
5. Steam Line Pressure	3/Steam Generator	1/Steam Generator	2
6. Steam Generator Water Level (Narrow Range)	3/Steam Generator	1/Steam Generator	2
7. Steam Generator Water Level (Wide Range)	4/(1/Steam Generator)	3 (1/Steam Generator)	2
8. Refueling Water Storage Tank Water Level	4	1	
9. Boric Acid Tank Solution Level	2 (1/tank)	1 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	3 (1/Steam Generator)	6
11. Reactor Coolant System Subcooling Margin Monitor	2*	1	6
12. PORV Position Indicator	2/valve**	1	2

TABLE 3.3-11b (CONTINUED)

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>MINIMUM NO. OF CHANNELS</u>	<u>ACTION</u>
13. PORV Block Valve Position Indicator	2/valve**	1	2
14. Pressurizer Safety Valve Position Indicator	2/valve**	1	2
15. Containment Pressure - Narrow Range	4	1	2
16. Containment Pressure - Wide Range	2	1	2
17. Containment Water Level - Wide Range	2	1	2
18. Core Exit Thermocouples	65	2/core quadrant	2

(\*) Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.

(\*\*) Total number of channels is considered to be two (2) with one (1) of the channels being any one (1) of the following alternate means of determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level Operable.

TABLE 3.3-11a & b (continued)

TABLE NOTATION

- ACTION 1 With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11a, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- ACTION 2 With the number of OPERABLE accident monitoring channels less than the MINIMUM Number of Channels shown in Table 3.3-11b, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.
- ACTION 3 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed provided that the Boric Acid Tank associated with the remaining OPERABLE channel satisfies all requirements of Specification 3.1.2.8.a.
- ACTION 4 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operations may proceed provided that an OPERABLE Steam Generator Wide Range Level channel is available as an alternate means of indication for the Steam Generator with no OPERABLE Auxiliary Feedwater Flow Rate channel.
- ACTION 5 With the number of OPERABLE channels less than the Required Number of Channels show in Table 3.3-11a, operation may proceed provided that Steam Tables are available in the Control Room and the following Required Channels shown in Table 3.3-11a are OPERABLE to provide an alternate means of calculating Reactor Coolant System subcooling margin:
- a. Reactor Coolant Outlet Temperature - T<sub>HOT</sub> (Wide Range)
  - b. Reactor Coolant Pressure (Wide Range)

TABLE 3.3-11a & b (continued)

TABLE NOTATION

- ACTION 6 With the number of OPERABLE channels less than the Minimum Number of channels shown in Table 3.3-11b, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- ACTION 7 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11a, operation may proceed until the next CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).



TABLE 4.3-11  
SURVEILLANCE REQUIREMENTS FOR  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>CHANNEL CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Reactor Coolant Outlet Temperature - T HOT (Wide Range)	M	R	NA
2. Reactor Coolant Inlet Temperature - T COLD (Wide Range)	M	R	NA
3. Reactor Coolant Pressure (Wide Range)	M	R	NA
4. Pressurizer Water Level	M	R	NA
5. Steam Line Pressure	M	R	NA
6. Steam Generator Water Level (Narrow Range)	M	R	NA
7. Steam Generator Water Level (Wide Range)	M	R	NA
8. Refueling Water Storage Tank Water Level	M	R	NA
9. Boric Acid Tank Solution Level	M	R	NA
10. Auxiliary Feedwater Flow Rate	SU#	R	NA
11. Reactor Coolant System Subcooling Margin Monitor	M	N/A*	NA

#Auxiliary Feedwater System is used on each startup and flow rate indication is verified at that time.

\*The instruments used to develop RCS subcooling margin are calibrated on an 18 month cycle; the monitor will be compared quarterly with calculated subcooling margin for known input values.

TABLE 4.3-11 (CONTINUED)  
SURVEILLANCE REQUIREMENTS FOR  
ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
12. PORV Position Indicator	M	NA	Q
13. PORV Block Valve Position Indicator	M	NA	Q
14. Pressurizer Safety Valve Position Indicator	M	NA	R
15. Containment Pressure - Narrow Range	M	NA	NA
16. Containment Pressure - Wide Range	M	R	NA
17. Containment Water Level - Wide Range	M	R	NA
18. Core Exit Thermocouples	M	R	NA

## INSTRUMENTATION

### RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.9 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the (ODCM).

APPLICABILITY: As shown in Table 3.3-13

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable or change the setpoint so it is acceptably conservative.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to operable status within 30 days and, if unsuccessful, explain in the next semi-annual radioactive effluent release report why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3, 3.0.4, and 6.9.1.9.b are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.9 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, AND CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. WASTE GAS HOLDUP SYSTEM			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (2-R41C)	1	*	31
b. Oxygen Monitor	1	**	35
2. CONTAINMENT PURGE AND PRESSURE - VACUUM RELIEF			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (2-R41C or 2-R12A)	1	***	34
3. PLANT VENT HEADER SYSTEM#			
a. Noble Gas Activity Monitor (2-R16 or 2-R41C)	1	*	33
b. Iodine Sampler	1	*	36
c. Particulate Sampler	1	*	36
d. Flow Rate Monitor	1	*	32
e. Sampler Flow Rate Monitor	1	*	32

# The following process streams are routed to the plant vent where they are effectively monitored by the instruments described:

- (a) Condenser Air Removal System
- (b) Auxiliary Building Ventilation System
- (c) Fuel Handling Building Ventilation System
- (d) Radwaste Area Ventilation System
- (e) Containment Purges

Action item #34 applies to the purging of the containment only.

TABLE 3.3-13 (Continued)

TABLE NOTATION

ACTION 31 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

- a. At least two independent samples of the tank's contents are analyzed, and
- b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valving lineup;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 32 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours.

ACTION 33 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 8 hours and these samples are analyzed for gross activity within 24 hours.

ACTION 34 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.

\* At all times, other than when the line is valved out and locked.

\*\* During waste gas holdup system operation.

\*\*\* During containment purges or containment pressure - vacuum reliefs.

TABLE 3.3-13 (Continued)

TABLE NOTATION

- ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the waste gas holdup system may continue provided grab samples are collected at least once per 24 hours and analyzed within the following 4 hours.
- ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

TABLE 4.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNELS OPERABLE</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. WASTE GAS HOLDUP SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (2-R41C)	P	P	R(3)	Q(1)	
b. Oxygen Monitor	D	N.A.	Q(4)	M	**
2. CONTAINMENT PURGE AND PRESSURE - VACUUM RELIEF					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (2-R41C or 2-R12A)	P	P	R(3)	Q(1)	***
3. PLANT VENT HEADER SYSTEM#					
a. Noble Gas Activity Monitor (2-R16 or 2-R41C)	D	M	R(3)	Q(2)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate Monitor	D	N.A.	R	N.A.	*
e. Sampler Flow Rate Monitor	W	N.A.	R	N.A.	*

# The following process streams are routed to the plant vent where they are effectively monitored by the instruments described:

- (a) Condenser Air Removal System
- (b) Auxiliary Building Ventilation System
- (c) Fuel Handling Building Ventilation System
- (d) Radwaste Area Ventilation System
- (e) Containment Purges

TABLE 4.3-13 (Continued)

TABLE NOTATION

- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exist:
  1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Circuit failure. (Loss of Power)
  3. Instrument indicates a downscale failure. (Alarm Only)
  
- (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exist:
  1. Instrument indicates measured levels above the alarm/trip setpoint.
  2. Circuit failure. (Loss of Power)
  3. Instrument indicates a downscale failure.
  4. Instrument controls not set in operate mode.
  
- (3) The initial CHANNEL CALIBRATION was performed using appropriate liquid or gaseous calibration sources obtained from reputable suppliers. The activity of the calibration sources were reconfirmed using a multi-channel analyzer which was calibrated using one or more NBS standards.
  
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
  1. One volume percent oxygen, balance nitrogen, and
  2. Four volume percent oxygen, balance nitrogen.

- \* At all times
- \*\* During waste gas holdup system operation.
- \*\*\* During containment purge or containment pressure - vacuum reliefs.



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



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NOS. 79 AND 53  
TO FACILITY OPERATING LICENSE NOS. DPR-70 AND DPR-75  
PUBLIC SERVICE ELECTRIC AND 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

INTRODUCTION

By letter dated September 21, 1984 and supplemented by a letter dated August 8, 1986, Public Service Electric and Gas Company transmitted a technical specification change request for Salem Units 1 and 2. The licensee requested to:

- (1) add medium and high range noble gas effluent monitors (R45B, R45C, R46 and R15) and high range containment area monitors (R44 A and B) to Radiation Monitoring Instrumentation Tables 3.3-6 and 4.3-3;
- (2) delete containment fixed filter iodine monitor (R12B) from Radiation Monitoring Instrumentation Tables 3.3-6 and 4.3-3 (Unit 1 only as the Unit 2 Tables do not list this monitor);
- (3) delete containment atmosphere radioactivity monitors (item 3.c.2) in Tables 3.3-3 and 3.3-4 by cross referencing them to the same monitors (R12a and R11a) appearing in Tables 3.3-6 and 4.3-3;
- (4) change applicable modes and alarm set points for containment gaseous and particulate radioactivity monitors (R12a and R11a) in Tables 3.3-6 and 4.3-3; and
- (5) add containment noble gas monitor (R12a) to radioactive gaseous effluent monitoring instrumentation Tables 3.3-13 and 4.3-13.

- (6) Modify the format and Action Statements of Technical Specifications 3.3.3.7, Accident Monitoring Instrumentation, for Salem Unit No. 2 so that they agree with the format and Action Statements utilized on Unit No. 1.
- (7) Include Limiting Conditions for Operation and Surveillance Requirements for accident monitoring instrumentation in Tables 3.3-11a, 3.3-11b and 4.3-11 for both units. The instruments to be revised are containment pressure-narrow range, containment pressure-wide range, containment water level-wide range, and core-exit thermocouples.

The licensee's submittal of August 8, 1986, was made as a result of NRC staff request to clarify the language of the original submittal, dated September 21, 1984, and does not contain substantive changes.

#### EVALUATION AND SUMMARY

- (1) Addition of Noble Gas Effluent Monitors to Radiation Monitoring Instrumentation Tables 3.3-6 and 4.3-3

The proposed changes to these Tables are additions to the current Technical Specifications in accordance with NUREG-0737 Technical Specification Generic Letter No. 83-36, dated November 1, 1983. A total of four noble gas effluent monitors (medium range plant vent, high range plant vent, main steam line discharge, and condenser air ejector exhaust) and two high range containment area monitors are added. These monitors would provide information during and following an accident to aid the operator in assessing plant conditions. The measurement ranges and actions required in case of the failure of these monitors are in accordance with the generic letter and NUREG-0737, Item II.F.1, attachment 1. Hence, the staff finds these additions to the current Salem Technical Specifications to be appropriate and acceptable.

- (2) Deletion of Containment Fixed Filtered Iodine Monitor from Radiation Monitoring Instrumentation Tables 3.3-6 and 4.3-3

This monitor is not an effluent monitor. Iodine activity in the containment purge and pressure vacuum relief releases are monitored downstream by the plant vent fixed filter iodine monitor. In addition, this monitor is a cumulative sampler (charcoal cartridge) and does not provide instantaneous readouts of containment iodine concentrations for any immediate action. Iodine monitoring in the containment atmosphere is not required in the PWR Standard Technical Specification. This deletion will make the Unit 1 Technical Specifications consistent to that of Unit 2. Hence, the staff finds this deletion to be acceptable.

- (3) Cross-Referencing of Containment Atmosphere Radioactivity Monitors

The specifications for containment atmosphere radioactivity monitors (item 3.2.2) in Tables 3.-3 and 4.3-2 are deleted by cross-referencing to the same monitors (item 2.a.1 and 2) in Tables 3.3-6 and 4.3-3. This change will eliminate duplication and assure consistency in the requirements applicable to these monitors. Hence, the staff finds this proposed cross-referencing to be acceptable.

(4) Changes to Applicable Modes and Alarm Set Points for Containment Atmosphere Radioactivity Monitors -

These changes provide the containment radiation monitoring instrumentation with its dual function: (1) providing the safety function of containment isolation at early indication of abnormal conditions during refueling (at two times background during operational mode 6) and (2) serving as a monitor during periods of allowable containment purge and pressure/vacuum relief with alarm/trip setpoints to ensure maximum discharge rates are not exceeded (specification 3.3.3.9 during operational modes 1, 2, 3, 4 and 5). Hence, the staff finds these changes to be acceptable.

(5) Addition of Containment Gaseous (Noble Gases) Monitor (R12a) to Radioactive Gaseous Effluent Monitoring Instrumentation Tables 3.3-13 and 4.3-13

The licensee stated that they intend to set the containment gaseous monitor (R12a) at a level "equivalent to technical specification ODCM level to isolate containment (also the containment particulate monitor (R11a)). This monitor is not an effluent monitor. The containment releases are further monitored downstream by the plant vent header monitoring system (R41) prior to release to the environment. Since this addition of the containment gaseous monitor (R12a) to Tables 3.3-13 and 4.3-13, Radioactive Gaseous Effluent Monitoring Instrumentation, is an additional requirement requested by the licensee, the staff finds this request to be acceptable.

Based on the foregoing evaluation, the staff concludes that the above changes are acceptable. The basis for the staff's acceptance is that the proposed amendments are consistent with the requirements in NUREG-0737, guidance provided in Generic Letter No. 83-36, PWR Standard Technical Specifications, and SRP Section 11.5.

(6) Modify the format and Action Statements of Unit 2 so that they agree with Unit 1

The proposed modifications to the format and Action Statements for Unit 2 Accident Monitoring Instrumentation Technical Specifications were worded to agree with Unit 1 Technical Specifications. The Technical Specifications issued with Unit No. 2 Facility Operating License and those provided as guidance in Generic Letter 83-27 do not take into consideration alternate plant Accident Monitoring Instrumentation capabilities as was done on Unit No. 1 Technical Specifications. The existing format used on Unit 1 Accident Monitoring was used for this change.

This format provides ACTION STATEMENTS for certain monitoring capabilities for which alternate methods of monitoring have been evaluated by the licensee. The staff has previously reviewed and

approved these same modifications for Salem Unit 1 (Amendment 39 to the Unit 1 license). Hence, the staff finds these revisions to the Salem Unit 2 technical specifications to be appropriate and acceptable.

(7) Inclusion of Limiting Conditions for Operation and Surveillance Requirements for specific accident monitoring instrumentation

The only proposed Technical Specification changes in this area that vary somewhat from the guidance provided by NRC Generic Letter 83-27 and the Standard Technical Specifications are the Limiting Condition for Operations (LCOs) regarding containment wide range water level and containment wide range pressure. A new ACTION (7) is introduced to provide for continued operations with one of the two wide range instruments INOPERABLE until the next CHANNEL CALIBRATION, which must be done during MODE 5, COLD SHUTDOWN.

The licensee has stated that the variance for containment water level is necessary due to the physical design relationship of the containment sump and the level detectors and the pressure transmitters within containment. The removal of the containment sump screen to repair a containment water level instrument would render the containment sump and, consequently, the entire ECCS (recirculation mode) INOPERABLE, requiring plant shutdown within one hour. This action, resulting from only one wide range containment water level instrument out of service, would result in a plant shutdown within one hour while redundant narrow range containment water level indication is still available for post accident information. The staff finds the application of new ACTION (7) acceptable on the basis of the available redundancy for this variable.

For containment wide range pressure, ACTION (7) has also been proposed when the number of OPERABLE channels is one less than the required number of channels (two). For this instrument the licensee has stated that the variance is justified because the standard LCO for the containment narrow range pressure instruments is provided and will require two operable narrow range instruments. In addition, ACTION (2) is required when the number OPERABLE channels is less than the minimum number of channels (one) for the containment wide-range pressure instrumentation.

This action (ACTION 2) requires the restoration of the inoperable channels within 48 hours, or be in HOT SHUTDOWN within the next 12 hours. The staff finds the application of new ACTION (7) for the containment wide-range pressure instrumentation required number of channels acceptable on the basis of the available redundancy and the action required (ACTION 2) when the minimum number of channels is not met.

The Standard Technical Specifications (STS) currently impose limiting conditions for operation and surveillance requirements on the post-accident monitoring instruments and include examples of the

instrumentation that should be included in an applicant's technical specification submittal. Using the guidance contained in the bases section of the STS the licensee has developed plant specific LCOs, as discussed above, to be included in the post-accident monitoring instrumentation technical specifications.

We believe that the proposed STS revisions described herein are appropriate and follow the staff's position with regard to technical specifications on instrumentation to assess plant and environs conditions during and following an accident. Therefore, based on the foregoing evaluation, the staff concludes that the requested revisions are acceptable.

#### ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 published 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 §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.

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

Date: **APR 10 1987**

Principal Contributors:

J. Lee  
J. Mauck