

Docket Nos. 50-272  
and 50-311 June 21, 1985

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:

By letter dated May 28, 1985, we issued Amendment Nos. 63 and 34 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Nuclear Generating Station, Unit Nos. 1 and 2, respectively.

Through an administrative error an incorrect amendment number was used for License No. DPR-75. The correct number should be Amendment No. 35. Please correct your copy of the amendment to reflect the correction.

Also several changes in Amendment Nos. 64 and 36 to Facility Operating License Nos. DPR-70 and DPR-75 were inadvertently omitted from the package. These additional changes, together with the corrected pages for Amendments 63 and 34, are enclosed. The affected pages should be replaced as follows:

Amendment Nos. 63 and 34

- ° discard page 3/4 11-16 with the word "delete" written diagonally across.

Amendment No. 34

- ° replace pages 3/4 3-54, 3/4 3-55, 3/4 3-56 and 3/4 11-16 with corrected pages enclosed.

Amendment No. 64

- ° replace pages 3/4 11-10, 3/4 11-11, 3/4 11-15, and B3/4 11-6, with corrected pages enclosed.

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Mr. C. A. McNeill, Jr.

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June 21, 1985

Amendment No. 36

- ° replace pages 3/4 3-54, 3/4 11-10, 3/4 11-11, 3/4 11-15, and B3/4 11-6, with corrected pages enclosed.

Sincerely,  
/s/DFischer

Donald C. Fischer, Project Manager  
Operating Reactors Branch #1  
Division of Licensing

Enclosure:  
As stated

cc w/enclosure:  
See next page

ORB#1:DL  
CParrish  
6/24/85

ORB#1:DL  
DFischer;ps  
6/20/85

BC-ORB#1:DL  
SVarga  
6/21/85

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

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PDR

SALEM - UNIT 2

3/4 3-54

Amendment No. 35

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line (2-R18)	1	26
b. Steam Generator Blowdown Line (2-R19 A, B, C, and D)	4	27
2. GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Containment Fan Coolers - Service Water Line (2-R13 A, B, C) Discharge	5	28
b. Chemical Waste Basin Line (R37)	1	31
3. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	29
b. Steam Generator Blowdown Line	4	29
4. TANK LEVEL INDICATING DEVICES		
a. Temporary Outside Storage Tanks as Required	1	30

TABLE 3.3-12 (Continued)

TABLE NOTATION

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases may continue provided that prior to initiating a release:

- a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and
- b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 27 - 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 analyzed for gross radioactivity (beta or gamma) at a limit of detection of at least  $10^{-7}$  microcuries/gram:

- a. At least once per 8 hours when the specific activity of the secondary coolant is greater than 0.01 microcuries/gram DOSE EQUIVALENT I-131.
- b. At least once per 24 hours when the specific activity of the secondary coolant is less than or equal to 0.01 microcuries/gram DOSE EQUIVALENT I-131.

ACTION 28 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that:

- a. At least once per 8 hours, local monitor readouts for the affected channels are verified to be below their alarm setpoints, or
- b. With a Service Water System leak on the Containment Fan Coil Unit associated with the inoperable monitor either:
  1. Grab samples are to be collected and analyzed for gross radioactivity (beta or gamma) at a limit of detection of at least  $10^{-7}$  uCi/gram at least once per 8 hours, or
  2. Isolate the release pathway.
- c. With no identified service water leakage on the Containment Fan Coil Unit associated with the inoperable monitor collect grab samples and analyze for gross radioactivity (beta or gamma) at a limit of detection of at least  $10^{-7}$  uCi/gram at least once per 24 hours.

TABLE 3.3-12 (Continued)

TABLE NOTATION

- ACTION 29 - 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 during actual releases. Pump performance curves may be used to estimate flow.
- ACTION 30 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, liquid additions to this tank may continue for up to 30 days provided the tank liquid level is estimated during all liquid additions to the tank.
- ACTION 31 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that sampling is conducted in accordance with the following table:

<u>Frequency</u>	<u>Condition</u>
1/week	During normal operation (all MODES)
1/day	During operation with an identified primary to secondary leak on either Salem Unit.

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TABLE 4.11-2 (Continued)

TABLE NOTATION

- a. The LLD is defined in Table 4.11.1
- b. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks that are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- c. Sampling and analysis shall also be performed following shutdown, startup or a THERMAL POWER change that, within one hour, exceeds 15 percent of RATED THERMAL POWER unless:
  1. Analysis shows that the DOSE EQUIVALENT I-131 concentration in the primary coolant has not increased more than a factor of three.
  2. The noble gas activity monitor shows that effluent activity has not increased by more than a factor of three.
- d. Tritium grab samples shall be taken at least once per 24 hours when the refueling canal is flooded.
- e. Tritium grab samples shall be taken at least once per 7 days from the ventilation exhaust from the spent fuel pool area whenever spent fuel is in the spent fuel pool.
- f. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specifications 3.11.2.1, 3.11.2.2 and 3.11.2.3.



TABLE 4.11-2 (Continued)

TABLE NOTATION

- g. Samples shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing (or after removal from sampler). Sampling shall also be performed at least once per 24 hours for at least 7 days following each shutdown, startup or THERMAL POWER change that, within one hour, exceeds 15 percent of RATED THERMAL POWER and analyses shall be completed within 48 hours of changing. When samples collected for 24 hours are analyzed, the corresponding LLDs may be increased by a factor of 10. This requirement does not apply if (1) analysis shows that the DOSE EQUIVALENT I-131 concentration in the primary coolant has not increased more than a factor of 3; and (2) the noble gas monitor shows that effluent activity has not increased by more than a factor of three.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

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3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to less than or equal to 2% by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the waste gas holdup system greater than 2% by volume but less than or equal 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.
- b. With the concentration of oxygen in the waste gas holdup system greater than 4% by volume immediately suspend all additions of waste gases to the system and reduce the concentration of oxygen to less than or equal to 2% by volume without delay.
- c. The provision of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.11.2.5 The concentrations of hydrogen and oxygen in the waste gas holdup system shall be determined to be within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitor required OPERABLE by Table 3.3-13. If hydrogen is not measured, the concentration of hydrogen shall be assumed to exceed 4% by volume.

## RADIOACTIVE EFFLUENTS

### BASES

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#### 3/4.11.2.5 EXPLOSIVE GAS MIXTURE

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the waste gas holdup system is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

#### 3/4.11.3 SOLID RADIOACTIVE WASTE

This specification implements the requirements of 10 CFR Part 50.36a and General Design Criterion 60 of Appendix A to 10 CFR Part 50. The process parameters included in establishing the PROCESS CONTROL PROGRAM may include, but are not limited to waste type, waste pH, waste/liquid/solidification agent/catalyst ratios, waste oil content, waste principal chemical constituents, mixing and curing times.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line (2-R18)	1	26
b. Steam Generator Blowdown Line (2-R19 A, B, C, and D)	4	27
2. GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Containment Fan Coolers - Service Water Line (2-R13 A, B, C) Discharge	3	28
b. Chemical Waste Basin Line (R37)	1	31
3. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	29
b. Steam Generator Blowdown Line	4	29
4. TANK LEVEL INDICATING DEVICES		
a. Temporary Outside Storage Tanks as Required	1	30

TABLE 4.11-2 (Continued)

TABLE NOTATION

- a. The LLD is defined in Table 4.11.1
- b. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135, Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-134, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks that are measurable and identifiable, together with the above nuclides, shall also be identified and reported.
- c. Sampling and analysis shall also be performed following shutdown, startup or a THERMAL POWER change that, within one hour, exceeds 15 percent of RATED THERMAL POWER unless:
  1. Analysis shows that the DOSE EQUIVALENT I-131 concentration in the primary coolant has not increased more than a factor of three.
  2. The noble gas activity monitor shows that effluent activity has not increased by more than a factor of three.
- d. Tritium grab samples shall be taken at least once per 24 hours when the refueling canal is flooded.
- e. Tritium grab samples shall be taken at least once per 7 days from the ventilation exhaust from the spent fuel pool area whenever spent fuel is in the spent fuel pool.
- f. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specifications 3.11.2.1, 3.11.2.2 and 3.11.2.3.

TABLE 4.11-2 (Continued)

TABLE NOTATION

- g. Samples shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing (or after removal from sampler). Sampling shall also be performed at least once per 24 hours for at least 7 days following each shutdown, startup or THERMAL POWER change that, within one hour, exceeds 15 percent of RATED THERMAL POWER and analyses shall be completed within 48 hours of changing. When samples collected for 24 hours are analyzed, the corresponding LLDs may be increased by a factor of 10. This requirement does not apply if (1) analysis shows that the DOSE EQUIVALENT I-131 concentration in the primary coolant has not increased more than a factor of 3; and (2) the noble gas monitor shows that effluent activity has not increased by more than a factor of three.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

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3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to less than or equal to 2% by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the waste gas holdup system greater than 2% by volume but less than or equal 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.
- b. With the concentration of oxygen in the waste gas holdup system greater than 4% by volume immediately suspend all additions of waste gases to the system and reduce the concentration of oxygen to less than or equal to 2% by volume without delay.
- c. The provision of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.11.2.5 The concentrations of hydrogen and oxygen in the waste gas holdup system shall be determined to be within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitor required OPERABLE by Table 3.3-13. If hydrogen is not measured, the concentration of hydrogen shall be assumed to exceed 4% by volume.

## RADIOACTIVE EFFLUENTS

### BASES

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#### 3/4.11.2.5 EXPLOSIVE GAS MIXTURE

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the waste gas holdup system is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

#### 3/4.11.3 SOLID RADIOACTIVE WASTE

This specification implements the requirements of 10 CFR Part 50.36a and General Design Criterion 60 of Appendix A to 10 CFR Part 50. The process parameters included in establishing the PROCESS CONTROL PROGRAM may include, but are not limited to waste type, waste pH, waste/liquid/solidification agent/catalyst ratios, waste oil content, waste principal chemical constituents, mixing and curing times.