

July 2, 1996

Mr. Robert G. Byram  
Senior Vice President-Nuclear  
Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, PA 18101

SUBJECT: ADOPTION OF 10 CFR PART 50, APPENDIX J, OPTION B, SUSQUEHANNA STEAM  
ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M94818 AND M94819)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 158 to Facility  
Operating License No. NPF-14 and Amendment No. 129 to Facility Operating  
License No. NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1  
and 2. These amendments are in response to your letter dated February 12,  
1996.

These amendments revise the Technical Specifications (TSs) to establish and  
reference a Primary Containment Leak Rate Testing Program in order to  
implement the requirements of 10 CFR Part 50, Appendix J, Option B. Option B  
of Appendix J permits implementation of a performance based leak rate test  
schedule in lieu of the prescriptive requirements contained in Appendix J,  
Option A. The Program will be established, implemented, and maintained in the  
Administrative Controls portion of the TSs under Specification 6.8, Procedures  
and Programs. A new Specification 6.8.5, Primary Containment Leakage Rate  
Testing Program, is being established under this change.

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/

Chester Poslusny, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

- Enclosures: 1. Amendment No. 158 to License No. NPF-14
- 2. Amendment No. 129 to License No. NPF-22
- 3. Safety Evaluation

cc w/encls: See next page

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NAME	MO'Brien	TLiu:mw	CPoslusny	CBerlinger	Wollen	JStolz
DATE	6/1/96	6/4/96	6/4/96	6/4/96	6/11/96	7/12/96

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 2, 1996

Mr. Robert G. Byram  
Senior Vice President-Nuclear  
Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, PA 18101

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ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M94818 AND M94819)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 158 to Facility Operating License No. NPF-14 and Amendment No. 129 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. These amendments are in response to your letter dated February 12, 1996.

These amendments revise the Technical Specifications (TSs) to establish and reference a Primary Containment Leak Rate Testing Program in order to implement the requirements of 10 CFR Part 50, Appendix J, Option B. Option B of Appendix J permits implementation of a performance based leak rate test schedule in lieu of the prescriptive requirements contained in Appendix J, Option A. The Program will be established, implemented, and maintained in the Administrative Controls portion of the TSs under Specification 6.8, Procedures and Programs. A new Specification 6.8.5, Primary Containment Leakage Rate Testing Program, is being established under this change.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly Federal Register Notice.

Sincerely,

A handwritten signature in cursive script that reads "Chester Poslusny".

Chester Poslusny, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

Enclosures: 1. Amendment No. 158 to  
License No. NPF-14  
2. Amendment No. 129 to  
License No. NPF-22  
3. Safety Evaluation

cc w/encls: See next page

Mr. Robert G. Byram  
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station,  
Units 1 & 2

cc:

Jay Silberg, Esq.  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street N.W.  
Washington, D.C. 20037

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Bryan A. Snapp, Esq.  
Assistant Corporate Counsel  
Pennsylvania Power & Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Mr. Harold G. Stanley  
Vice President-Nuclear Operations  
Susquehanna Steam Electric Station  
Pennsylvania Power and Light Company  
Box 467  
Berwick, Pennsylvania 18603

Mr. J. M. Kenny  
Licensing Group Supervisor  
Pennsylvania Power & Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Mr. Herbert D. Woodeshick  
Special Office of the President  
Pennsylvania Power and Light Company  
Rural Route 1, Box 1797  
Berwick, Pennsylvania 18603

Mrs. Maitri Banerjee  
Senior Resident Inspector  
U. S. Nuclear Regulatory Commission  
P.O. Box 35  
Berwick, Pennsylvania 18603-0035

George T. Jones  
Vice President-Nuclear Engineering  
Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Mr. William P. Dornsife, Director  
Bureau of Radiation Protection  
Pennsylvania Department of  
Environmental Resources  
P. O. Box 8469  
Harrisburg, Pennsylvania 17105-8469

Dr. Judith Johnsrud  
National Energy Committee  
Sierra Club  
433 Orlando Avenue  
State College, PA 16803

Mr. Jesse C. Tilton, III  
Allegheny Elec. Cooperative, Inc.  
212 Locust Street  
P.O. Box 1266  
Harrisburg, Pennsylvania 17108-1266

Chairman  
Board of Supervisors  
738 East Third Street  
Berwick, PA 18603



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 158  
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated February 12, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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.

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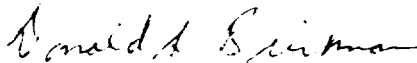
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-14 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 158 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
for John F. Stolz, Director  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 2, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 158

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

<u>REMOVE</u>	<u>INSERT</u>
3/4 6-1	3/4 6-1
3/4 6-2	3/4 6-2
3/4 6-3	3/4 6-3
3/4 6-4	3/4 6-4
3/4 6-5	3/4 6-5
3/4 6-6	3/4 6-6
3/4 6-8	3/4 6-8
3/4 6-11	3/4 6-11
B 3/4 6-1	B 3/4 6-1
B 3/4 6-2	B 3/4 6-2
-	6-16a

## 3/4.6 CONTAINMENT SYSTEMS

### 3/4.6.1 PRIMARY CONTAINMENT

#### PRIMARY CONTAINMENT INTEGRITY

##### LIMITING CONDITION FOR OPERATION

---

3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\* and 3.

##### ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##### SURVEILLANCE REQUIREMENTS

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4.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

- a. After each closing of each penetration subject to Type B testing, except the primary containment air locks, if opened following Type A or B test, by leak rate testing in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- b. At least once per 31 days by verifying that all primary containment penetrations\*\* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in position, except as provided in Table 3.6.3-1 of Specification 3.6.3.
- c. By verifying each primary containment air lock OPERABLE per Specification 3.6.1.3.
- d. By verifying the suppression chamber OPERABLE per Specification 3.6.2.1.

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\* See Special Test Exception 3.10.1

\*\* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment, and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been de-inerted since the last verification or more often than once per 92 days.

## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.6.1.2 Primary containment leakage rates shall be limited to:

- a. An overall integrated leakage rate (Type A test) in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- b. A combined leakage rate in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests.
- #c. \*Less than or equal to 100 scf per hour for any one main steam isolation valve and a combined maximum pathway leakage rate of  $\leq 300$  scf per hour for all four main steam lines through the isolation valves when tested at  $P_1$ , 22.5 psig.
- d. \*Less than or equal to 1.2 scf per hour for any one main steam line drain valve when tested in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- e. A combined leakage rate of less than or equal to 3.3 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at  $1.10 P_a$ .

**APPLICABILITY:** When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1.

#### ACTION:

With:

- a. The measured overall integrated primary containment leakage rate (Type A test) not in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, or
- b. The measured combined leakage rate for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests not in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, or
- #c. The measured leakage rate exceeding 100 scf per hour for any one main steam isolation valve or a total maximum pathway leakage rate of  $> 300$  scf per hour for all four main steam lines through the isolation valves, or
- d. The measured leak rate exceeding 1.2 scf per hour for any one main steam line drain valve, or
- e. The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 3.3 gpm,

\* Exemption to Appendix "J" of 10 CFR 50.

# Deletion of the MSIV Leakage Control System was approved in Amendment No. 151 and implemented during the U1 9RIO.



## CONTAINMENT SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION (Continued)

restore:

- a. The overall integrated leakage rate (Type A test) to be in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, and
- b. The combined leakage rate for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests to be in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, and
- #c. The leakage rate to less than or equal to 11.5 scf per hour for any main steam isolation valve that exceeds 100 scf per hour, and restore the combined maximum pathway leakage rate to  $\leq 300$  scf per hour for all four main steam lines through the isolation valves, and
- d. The leakage rate to less than or equal to 1.2 scf per hour for any one main steam line drain valve, and
- e. The combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment to less than or equal to 3.3 gpm,

prior to increasing reactor coolant system temperature above 200°F.

### SURVEILLANCE REQUIREMENTS

- 4.6.1.2 The primary containment leakage rates shall be demonstrated in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, for the following:
- a. Type A Test
  - b. Type B and C Tests (including air locks and purge supply and exhaust isolation valves)
  - c. Air Locks
  - d. Main Steam Line Isolation Valves
  - e. Hydrostatically Tested Containment Isolation Valves
  - f. Purge Supply and Exhaust Isolation Valves

# Deletion of the MSIV Leakage Control System was approved in Amendment No. 151 and implemented during the U1 9 RIO.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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**THE SURVEILLANCE REQUIREMENTS PREVIOUSLY ON THIS PAGE HAVE BEEN  
DELETED**

## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each primary containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\* and 3.

ACTION:

- a. With one primary containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
  2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days.
  3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With the primary containment air lock inoperable, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

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\* See Special Test Exception 3.10.1.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.6.1.3 Each primary containment air lock shall be demonstrated OPERABLE:

- a. By verifying seal leakage rate is in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- b. By conducting an overall air lock leakage test in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time. \*\*

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\*\* Except that the inner door need not be opened to verify interlock OPERABILITY when the primary containment is inerted, provided that the inner door interlock is tested upon initial entry after the primary containment has been de-inerted.

## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

---

3.6.1.5 The structural integrity of the primary containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.5.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

#### ACTION:

With the structural integrity of the primary containment not conforming to the above requirements, restore the structural integrity to within the limits within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.5.1 The structural integrity of the exposed accessible interior and exterior surfaces or the primary containment, including the liner plate, shall be visually inspected in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

4.6.1.5.2 Reports Any abnormal degradation of the primary containment structure detected during the required inspection shall be reported in a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days. This report shall include a description of the condition of the concrete, the inspection procedure, the tolerances on cracking, and the corrective actions taken.

## CONTAINMENT SYSTEMS

### DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.1.8 The drywell and suppression chamber purge system may be in operation for up to 90 hours each 365 days with the supply and exhaust isolation valves in one supply line and one exhaust line open for inerting, deinerting or pressure control.\*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With a drywell and/or suppression chamber purge supply and/or exhaust isolation valve open, except as permitted above, close the valve(s) within four hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With a containment purge supply and/or exhaust isolation valve(s) with resilient material seals having a measured leakage rate exceeding the limit of Surveillance Requirement 4.6.1.8.2, restore the inoperable valve(s) to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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- 4.6.1.8.1 Before being opened, the drywell and suppression chamber purge supply and exhaust butterfly isolation valves shall be verified not to have been open for more than 90 hours in the previous 365 days. \*
- 4.6.1.8.2 Each 18 inch and 24 inch drywell and suppression chamber purge supply and exhaust with resilient material seals shall be demonstrated OPERABLE by verifying that the measured leakage rate is in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, at least once per 6 months.

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\* Valves open for pressure control are not subject to the 90 hour per 365 day limit provided the 2-inch bypass line is being utilized.

## 3/4.6 CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.1 PRIMARY CONTAINMENT

##### 3/4.6.1.1 PRIMARY CONTAINMENT INTEGRITY

PRIMARY CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR Part 100 during accident conditions.

##### 3/4.6.1.2 PRIMARY CONTAINMENT LEAKAGE

The limitations on primary containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the accident analyses at the design basis LOCA maximum peak containment pressure of 45.0 psig,  $P_a$ . As an added conservatism, the measured overall integrated leakage rate (Type A test) is further limited to less than or equal to  $0.75 L_a$  during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leakage tests.

Operating experience with main steam line isolation valves and main steam line drain valves has indicated that degradation has occasionally occurred in the leak tightness of the valves; therefore the special requirement for testing these valves.

The surveillance testing for measuring leakage rates is consistent with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

The frequency for performing the Type A tests is consistent with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

##### 3/4.6.1.3 PRIMARY CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the primary containment air locks are required to meet the restrictions on PRIMARY CONTAINMENT INTEGRITY and Specification 6.8.5, Primary Containment Leakage Rate Testing Program. Only one closed door in each air lock is required to maintain the integrity of the containment.

##### #3/4.6.1.4 MSIV LEAKAGE CONTROL SYSTEM

# Deletion of the MSIV Leakage Control System was approved in Amendment No. 151 and implemented during the U1 9 RIO.

## CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.1.5 PRIMARY CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the unit. Structural integrity is required to ensure that the containment will withstand the maximum pressure of 45.0 psig in the event of a LOCA. A visual inspection in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, is sufficient to demonstrate this capability.

#### 3/4.6.1.6 DRYWELL AND SUPPRESSION CHAMBER INTERNAL PRESSURE

The limitations on drywell and suppression in chamber internal pressure ensure that the containment peak pressure of 45.0 psig does not exceed the design pressure of 53 psig during LOCA conditions or that the external pressure differential does not exceed the design maximum external pressure differential of 5 psid. The limit of 2.0 psig for initial positive containment pressure will limit the total pressure to 45.0 psig which is less than the design pressure and is consistent with the safety analysis.

#### 3/4.6.1.7 DRYWELL AVERAGE AIR TEMPERATURE

The limitation on drywell average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 340°F during LOCA conditions and is consistent with the safety analysis.

#### 3/4.6.1.8 DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

The drywell and suppression chamber purge supply and exhaust isolation valves are required to be closed during plant operation except as required for inerting, de-inerting and pressure control. Until these valves have been demonstrated capable of closing during a LOCA or steam line break accident, they shall be blocked so as not to open more than 50°. Until these valves have been demonstrated capable of closing within the times assumed in the safety analysis, they shall not be open more than 90 hours in any consecutive 365 days.

Leakage integrity tests with a maximum allowable leakage rate for purge supply and exhaust isolation valves will provide early indication of resilient material seal degradation and will allow the opportunity for repair before gross leakage failure develops. The 0.60 La leakage limit shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.



PROCEDURES AND PROGRAMS (Continued)

**6.8.5 Primary Containment Leakage Rate Testing Program**

A program shall be established, implemented, and maintained to comply with the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program", dated September 1995.

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 45.0 psig.

The maximum allowable primary containment leakage rate,  $L_a$ , at  $P_a$ , shall be 1% of the primary containment air weight per day.

Leakage Rate Acceptance Criteria are:

- a. Primary Containment leakage rate acceptance criterion is  $\leq 1.0 L_a$ . During each unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for Type B and Type C tests and  $\leq 0.75 L_a$  for Type A tests;
- b. Air lock testing acceptance criteria are:
  - 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ ,
  - 2) For each door, leakage rate is  $\leq 5$  scfh when pressurized to  $\geq 10$  psig.

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provision of Specification 4.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 129  
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated February 12, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 the Facility Operating License No. NPF-22 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 129 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Ronald A. Brinkman*  
for John F. Stolz, Director  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 2, 1996

ATTACHMENT TO LICENSE AMENDMENT NO.129

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

<u>REMOVE</u>	<u>INSERT</u>
3/4 6-1	3/4 6-1
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B 3/4 6-1	B 3/4 6-1
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-	6-16a

## 3/4.6 CONTAINMENT SYSTEMS

### 3/4.6.1 PRIMARY CONTAINMENT

#### PRIMARY CONTAINMENT INTEGRITY

##### LIMITING CONDITION FOR OPERATION

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3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\* and 3.

##### ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##### SURVEILLANCE REQUIREMENTS

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4.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

- a. After each closing of each penetration subject to Type B testing, except the primary containment air locks, if opened following Type A or B test, by leak rate testing in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- b. At least once per 31 days by verifying that all primary containment penetrations\*\* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in position, except as provided in Table 3.6.3-1 of Specification 3.6.3.
- c. By verifying each primary containment air lock OPERABLE per Specification 3.6.1.3.
- d. By verifying the suppression chamber OPERABLE per Specification 3.6.2.1.

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\* See Special Test Exception 3.10.1

\*\* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment, and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been de-inerted since the last verification or more often than once per 92 days.

## **CONTAINMENT SYSTEMS**

### **PRIMARY CONTAINMENT LEAKAGE**

#### **LIMITING CONDITION FOR OPERATION**

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- 3.6.1.2 Primary containment leakage rates shall be limited to:
- a. An overall integrated leakage rate (Type A test) in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
  - b. A combined leakage rate in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests.
  - c. \*Less than or equal to 100 scf per hour for any one main steam isolation valve and a combined maximum pathway leakage rate of  $\leq 300$  scf per hour for all four main steam lines through the isolation valves when tested at  $P_i$ , 22.5 psig.
  - d. \*Less than or equal to 1.2 scf per hour for any one main steam line drain valve when tested in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
  - e. A combined leakage rate of less than or equal to 3.3 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at 1.10  $P_a$ .

**APPLICABILITY:** When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1.

#### **ACTION:**

With:

- a. The measured overall integrated primary containment leakage rate (Type A test) not in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, or
- b. The measured combined leakage rate for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests not in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, or
- c. The measured leakage rate exceeding 100 scf per hour for any one main steam isolation valve or a total maximum pathway leakage rate of  $> 300$  scf per hour for all four main steam lines through the isolation valves, or
- d. The measured leak rate exceeding 1.2 scf per hour for any one main steam line drain valve, or
- e. The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 3.3 gpm,

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\* Exemption to Appendix "J" of 10 CFR 50.

## **CONTAINMENT SYSTEMS**

### **LIMITING CONDITION FOR OPERATION (Continued)**

#### **ACTION (Continued)**

restore:

- a. The overall integrated leakage rate (Type A test) to be in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, and
- b. The combined leakage rate for all penetrations and all valves listed in Table 3.6.3-1, except for main steam line isolation valves\*, main steam line drain valves\* and valves which are hydrostatically leak tested per Table 3.6.3-1, subject to Type B and C tests to be in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, and
- c. The leakage rate to less than or equal to 11.5 scf per hour for any main steam isolation valve that exceeds 100 scf per hour, and restore the combined maximum pathway leakage rate to  $\leq 300$  scf per hour for all four main steam lines through the isolation valves, and
- d. The leakage rate to less than or equal to 1.2 scf per hour for any one main steam line drain valve, and
- e. The combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment to less than or equal to 3.3 gpm,

prior to increasing reactor coolant system temperature above 200°F.

#### **SURVEILLANCE REQUIREMENTS**

- 4.6.1.2 The primary containment leakage rates shall be demonstrated in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, for the following:
- a. Type A Test
  - b. Type B and C Tests (including air locks and purge supply and exhaust isolation valve)
  - c. Air Locks
  - d. Main Steam Line Isolation Valves
  - e. Hydrostatically Tested Containment Isolation Valves
  - f. Purge Supply and Exhaust Isolation Valves

**THE SURVEILLANCE REQUIREMENTS PREVIOUSLY ON THIS PAGE HAVE BEEN  
DELETED**



## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each primary containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\* and 3.

#### ACTION:

- a. With one primary containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
  2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days.
  3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With the primary containment air lock inoperable, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

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\*See Special Test Exception 3.10.1.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.6.1.3 Each primary containment air lock shall be demonstrated OPERABLE:

- a. By verifying seal leakage rate is in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- b. By conducting an overall air lock leakage test in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.
- c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time. \*\*

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\*\* Except that the inner door need not be opened to verify interlock OPERABILITY when the primary containment is inerted, provided that the inner door interlock is tested upon initial entry after the primary containment has been deinerted.

## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT STRUCTURAL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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3.6.1.5 The structural integrity of the primary containment shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.5

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

#### ACTION:

With the structural integrity of the primary containment not conforming to the above requirements, restore the structural integrity to within the limits within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.5.1 The structural integrity of the exposed accessible interior and exterior surfaces of the primary containment, including the liner plate, shall be visually inspected in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

4.6.1.5.2 Reports Any abnormal degradation of the primary containment structure detected during the required inspection shall be reported in a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days. This report shall include a description of the condition of the concrete, the inspection procedure, the tolerances on cracking, and the corrective actions taken.

## CONTAINMENT SYSTEMS

### DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.1.8 The drywell and suppression chamber purge system may be in operation for up to 90 hours each 365 days with the supply and exhaust isolation valves in one supply line and one exhaust line open for inerting, deinerting or pressure control. \*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

- a. With a drywell and/or suppression chamber purge supply and/or exhaust isolation valve open, except as permitted above, close the valve(s) within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With a containment purge supply and/or exhaust isolation valve(s) with resilient material seals having a measured leakage rate exceeding the limit of Surveillance Requirement 4.6.1.8.2, restore the inoperable valve(s) to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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- 4.6.1.8.1 Before being opened, the drywell and suppression chamber purge supply and exhaust butterfly isolation valves shall be verified not to have been open for more than 90 hours in the previous 365 days. \*
- 4.6.1.8.2 Each 18-inch and 24-inch drywell and suppression chamber purge supply and exhaust with resilient material seals shall be demonstrated OPERABLE by verifying that the measured leakage rate is in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program at least once per 6 months.

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\* Valves open for pressure control are not subject to the 90 hour per 365 day limit provided the 2-inch bypass line is being utilized.

## **3/4.6 CONTAINMENT SYSTEMS**

### **BASES**

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#### **3/4 6.1 PRIMARY CONTAINMENT**

##### **3/4.6.1.1 PRIMARY CONTAINMENT INTEGRITY**

PRIMARY CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR Part 100 during accident conditions.

##### **3/4.6.1.2 PRIMARY CONTAINMENT LEAKAGE**

The limitations on primary containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the accident analyses at the design basis LOCA maximum peak containment pressure of 45.0 psig,  $P_a$ . As an added conservatism, the measured overall integrated leakage rate (Type A test) is further limited to less than or equal to  $0.75 L_a$  during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leakage tests.

Operating experience with main steam line isolation valves and main steam line drain valves has indicated that degradation has occasionally occurred in the leak tightness of the valves; therefore the special requirement for testing these valves.

The surveillance testing for measuring leakage rates is consistent with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

The frequency for performing the Type A tests is consistent with Specification 6.8.5, Primary Containment Leakage Rate Testing Program.

##### **3/4.6.1.3 PRIMARY CONTAINMENT AIR LOCKS**

The limitations on closure and leak rate for the primary containment air locks are required to meet the restrictions on PRIMARY CONTAINMENT INTEGRITY and Specification 6.8.5, Primary Containment Leakage Rate Testing Program. Only one closed door in each air lock is required to maintain the integrity of the containment.

## CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.1.5 PRIMARY CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the unit. Structural integrity is required to ensure that the containment will withstand the maximum pressure of 45.0 psig in the event of a LOCA. A visual inspection in accordance with Specification 6.8.5, Primary Containment Leakage Rate Testing Program, is sufficient to demonstrate this capability.

#### 3/4.6.1.6 DRYWELL AND SUPPRESSION CHAMBER INTERNAL PRESSURE

The limitations on drywell and suppression chamber internal pressure ensure that the containment peak pressure of 45.0 psig does not exceed the design pressure of 53 psig during LOCA conditions or that the external pressure differential does not exceed the design maximum external pressure differential of 5 psid. The limit of 2.0 psig for initial positive containment pressure will limit the total pressure to 45.0 psig which is less than the design pressure and is consistent with the safety analysis.

#### 3/4.6.1.7 DRYWELL AVERAGE AIR TEMPERATURE

The limitation on drywell average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 340°F during LOCA conditions and is consistent with the safety analysis.

#### 3/4.6.1.8 DRYWELL AND SUPPRESSION CHAMBER PURGE SYSTEM

The drywell and suppression chamber purge supply and exhaust isolation valves are required to be closed during plant operation except as required for inerting, deinerting and pressure control. The 90 hours per 365 day limit on purge valve operation is imposed to protect the integrity of the SGTS filters. Analysis indicates that should a LOCA occur while this pathway is being utilized, the associated pressure surge through the (18 or 24") purge lines will adversely affect the integrity of SGTS. This limit is not imposed, however, on the subject valves when pressure control is being performed through the 2-inch bypass line, since a pressure surge through this line does not threaten the OPERABILITY of SGTS.

Leakage integrity tests with a maximum allowable leakage rate for purge supply and exhaust isolation valves will provide early indication of resilient material seal degradation and will allow the opportunity for repair before gross leakage failure develops. The 0.60 L<sub>a</sub> leakage limit shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

## ADMINISTRATIVE CONTROLS

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### PROCEDURES AND PROGRAMS (Continued)

#### 6.8.5 Primary Containment Leakage Rate Testing Program

A program shall be established, implemented, and maintained to comply with the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program", dated September 1995.

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 45.0 psig.

The maximum allowable primary containment leakage rate,  $L_a$ , at  $P_a$ , shall be 1% of the primary containment air weight per day.

Leakage Rate Acceptance Criteria are:

- a. Primary Containment leakage rate acceptance criterion is  $\leq 1.0 L_a$ . During each unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for Type B and Type C tests and  $\leq 0.75 L_a$  for Type A tests;
- b. Air lock testing acceptance criteria are:
  - 1) Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ ,
  - 2) For each door, leakage rate is  $\leq 5$  scfh when pressurized to  $\geq 10$  psig.

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provision of Specification 4.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 158 TO FACILITY OPERATING LICENSE NO. NPF-14  
AMENDMENT NO. 129 TO FACILITY OPERATING LICENSE NO. NPF-22  
PENNSYLVANIA POWER & LIGHT COMPANY  
ALLEGHENY ELECTRIC COOPERATIVE, INC.  
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2  
DOCKET NOS. 50-387 AND 388

1.0 INTRODUCTION

On September 12, 1995, the U.S. Nuclear Regulatory Commission (NRC) approved issuance of a revision to 10 CFR Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The NRC added Option B, "Performance-Based Requirements," to allow licensees to voluntarily replace the prescriptive testing requirements of 10 CFR Part 50, Appendix J, with testing requirements based on both overall performance and the performance of individual components.

By letter dated February 12, 1996, the Pennsylvania Power and Light Company (the licensee) submitted a request for changes to the Susquehanna Steam Electric Station (SSES), Units 1 and 2, Technical Specifications (TSs). The requested changes would revise the TSs to establish and reference a Primary Containment Leak Rate Testing Program in order to implement the requirements of 10 CFR Part 50, Appendix J, Option B. Option B of Appendix J permits implementation of a performance based leak rate test schedule in lieu of the prescriptive requirements contained in Appendix J, Option A. The Program will be established, implemented, and maintained in the Administrative Controls portion of the TSs under Specification 6.8, Procedures and Programs. A new Specification 6.8.5, Primary Containment Leakage Rate Testing Program, is being established under this change. This specification requires that the Primary Containment Leakage Rate Testing Program shall be in accordance with the guidelines contained in Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995. This specification also includes the definition of  $P_a$  and  $L_a$  for SSES and specifies the Leak Rate Acceptance Criteria for Type A, B, and C tests and air locks.

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## 2.0 BACKGROUND

Compliance with Appendix J provides assurance that the primary containment, including those systems and components which penetrate the primary containment, do not exceed the allowable leakage rate specified in the TSs and Bases. The allowable leakage rate is determined so that the leakage rate assumed in the safety analyses is not exceeded.

On February 4, 1992, the NRC published a notice in the Federal Register (57 FR 4166) discussing a planned initiative to begin eliminating requirements marginal to safety which impose a significant regulatory burden. Appendix J, "Primary Containment Leakage Testing for Water-Cooled Power Reactors," of 10 CFR Part 50 was considered for this initiative and the NRC staff undertook a study of possible changes to this regulation. The study examined the previous performance history of domestic containments and examined the effect on risk of a revision to the requirements of Appendix J. The results of this study are reported in NUREG-1493, "Performance-Based Leak-Test Program".

Based on the results of this study, the NRC staff developed a performance-based approach to containment leakage rate testing. On September 12, 1995, the NRC approved issuance of this revision to 10 CFR Part 50, Appendix J, which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The revision added Option B, "Performance-Based Requirements," to Appendix J to allow licensees to voluntarily replace the prescriptive testing requirements of Appendix J with testing requirements based on both overall and individual component leakage rate performance.

RG 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, was developed as a method acceptable to the NRC staff for implementing Option B. This regulatory guide states that the Nuclear Energy Institute (NEI) guidance document NEI 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," provides methods acceptable to the NRC staff for complying with Option B with four exceptions which are described therein.

Option B requires that the RG, or other implementation document used by a licensee to develop a performance-based leakage testing program, must be included, by general reference, in the plant TSs. The licensee has referenced RG 1.163, dated September 1995, in the proposed SSES TSs.

RG 1.163, dated September 1995, specifies an extension in Type A test frequency to at least one test in 10 years based upon two consecutive successful tests. Type B tests may be extended up to a maximum interval of 10 years based upon completion of two consecutive successful tests and Type C tests may be extended up to 5 years based on two consecutive successful tests.

By letter dated October 20, 1995, NEI proposed TSs to implement Option B. After some discussion, the NRC staff and NEI agreed on final TSs which were transmitted to NEI in a letter dated November 2, 1995. These TSs are to serve as a model for licensees to develop plant-specific TSs in preparing amendment requests to implement Option B.

In order for a licensee to determine the performance of each component, factors that are indicative of or affect performance, such as an administrative leakage limit, must be established. The administrative limit is selected to be indicative of the potential onset of component degradation. Although these limits are subject to NRC inspection to assure that they are selected in a reasonable manner, they are not TS requirements. Failure to meet an administrative limit requires the licensee to return to the minimum value of the test interval.

Option B requires that the licensee maintain records to show that the criteria for Type A, B and C tests have been met. In addition, the licensee must maintain comparisons of the performance of the overall containment system and the individual components to show that the test intervals are adequate. These records are subject to NRC inspection.

### 3.0 EVALUATION

The licensee's February 12, 1996, letter to the NRC proposes to establish a "Containment Leakage Rate Testing Program" and proposes to add this program to the TS. The program references RG 1.163, which specifies a method acceptable to the NRC for complying with Option B. This requires a change to existing TS 4.6.1.1, 3.6.1.2, 4.6.1.2, 3.6.1.3, 4.6.1.3, 4.6.1.5.1, 4.6.1.8.2, and the addition of the "Containment Leakage Rate Testing Program" to Section 6.8.5. Corresponding bases, 3/4.6.1.2, 3/4.6.1.3, 3/4.6.1.5, were also modified.

Option B permits a licensee to choose Type A; or Type B and C; or Type A, B and C; testing to be done on performance basis. The licensee has elected to perform Type A, B and C testing on a performance basis.

The effect of SSES's increasing containment leakage rate testing intervals has been evaluated by the Nuclear Energy Institute using the methodology described in NUREG-1493 and historical representative industry leakage rate testing data. The results of this evaluation, as published in NEI 94-01, Revision 0, are that the increased safety risk corresponding to the extended test intervals is small, with less than 0.1 percent of total risk, and compares well to the guidance of the NRC's safety goal. Moreover, as demonstrated by risk analyses contained in NUREG-1482, relaxation of the integrated leak rate test frequency does not significantly increase the probability or consequences of a previously evaluated accident. Integrated leakage rate tests (ILRT) have been demonstrated to be of limited value in detecting significant leakages from penetrations and isolation valves. The licensee stated that the primary containment leak rate data and component performance history at SSES are consistent with the conclusions reached in NUREG-1493 and NEI 94-01.

The licensee stated that the proposed revision will continue to maintain the allowable leak rate ( $L_a$ ) as the Type A test performance criterion. In addition, a requirement to perform a periodic general visual inspection of the containment is part of the performance-based leakage testing program. The revised TS will maintain the allowable leak rate ( $L_a$ ) as the Type B and C tests' performance criterion as before. As supported by the findings of NUREG-1493, the percentage of leakages detected only by integrated leak rate tests is small, by only a few percent, and Type B and C leakage tests are capable of detecting more than 97 percent of containment leakages and virtually all such leakages are identified by local leak rate tests (LLRTs) of containment isolation valves.

The staff has reviewed the changes to the TS and associated Bases proposed by the licensee. The staff agrees that the proposed license amendments adopting a performance based approach for verification of leakage rates for isolation valves, containment penetrations, and the containment overall, will continue to meet the regulatory goal of providing an essentially leak tight containment boundary, and will provide an equivalent level of safety as the current requirements. In addition, the proposed TS changes are in compliance with the requirements of Option B and consistent with the guidance of RG 1.163, and the generic TS of the November 2, 1995, letter and are, therefore, acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC 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 (61 FR 15993). The amendments also relate to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendments meet eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). 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.

6.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: T. Liu

Date: July 2, 1996