

August 17, 1987

Docket No. 50-387

Mr. Harold W. Keiser  
Vice President  
Nuclear Operations  
Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

DISTRIBUTION:

Docket File	EJordan	JWiggins
NRC PDR	JPartlow	BClayton
Local PDR	TBarnhart (4)	
PDI-2 Rdg.	Wanda Jones	
SVarga	EButcher	
BBoger	JCraig	
WButler	ACRS (10)	
MThadani/DFischer	CMiles, GPA/PA	
MO'Brien	RDiggs, ARM/LFMB	
OGC - Bethesda	DHagan	

Dear Mr. Keiser:

SUBJECT: REVISE TECHNICAL SPECIFICATIONS TO SUPPORT MODIFICATIONS WHICH IMPROVE THE CONTAINMENT ISOLATION FUNCTION AND TESTABILITY OF THE FEEDWATER SYSTEM (TAC NO. 64391)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Commission has issued the enclosed Amendment No. 68 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. This amendment is in response to your letter dated December 9, 1986.

This amendment revises the Susquehanna Steam Electric Station, Unit 1 Technical Specifications to include operational control on modifications to improve the containment isolation function and testability of the feedwater system.

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/

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

Enclosures:

1. Amendment No. 68 to License No. NPF-14
2. Safety Evaluation

cc w/enclosures:  
See next page

8708260377 870817  
PDR ADDCK 05000387  
P PDR

PDI-2/PA  
WButler  
7/21/87

MThadani:ca  
7/21/87

JCraig  
7/25/87

PDI-2/D  
WButler  
8/6/87

OGC  
7/24/87



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

August 17, 1987

Docket No. 50-387

Mr. Harold W. Keiser  
Vice President  
Nuclear Operations  
Pennsylvania Power and Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Dear Mr. Keiser:

SUBJECT: REVISE TECHNICAL SPECIFICATIONS TO SUPPORT MODIFICATIONS WHICH  
IMPROVE THE CONTAINMENT ISOLATION FUNCTION AND TESTABILITY OF THE  
FEEDWATER SYSTEM (TAC NO. 64391)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Commission has issued the enclosed Amendment No. 68 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. This amendment is in response to your letter dated December 9, 1986.

This amendment revises the Susquehanna Steam Electric Station, Unit 1 Technical Specifications to include operational control on modifications to improve the containment isolation function and testability of the feedwater system.

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 "Walter R. Butler".

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

Enclosures:

1. Amendment No. 68 to License No. NPF-14
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Harold W. Keiser  
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

Mr. W. H. Hirst, Manager  
Joint Generation  
Projects Department  
Atlantic Electric  
P.O. Box 1500  
1199 Black Horse Pike  
Pleasantville, New Jersey 08232

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

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

Mr. E. A. Heckman  
Licensing Group Supervisor  
Pennsylvania Power & Light Company  
2 North Ninth Street  
Allentown, Pennsylvania 18101

Mr. Loren Plisco  
Resident Inspector  
P.O. Box 52  
Shickshinny, Pennsylvania 18655

Mr. R. J. Benich  
Services Project Manager  
General Electric Company  
1000 First Avenue  
King of Prussia, Pennsylvania 19406

Mr. Thomas M. Gerusky, Director  
Bureau of Radiation Protection  
Resources  
Commonwealth of Pennsylvania  
P. O. Box 2063  
Harrisburg, Pennsylvania 17120

Robert W. Alder, Esquire  
Office of Attorney General  
P.O. Box 2357  
Harrisburg, Pennsylvania 17120

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



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

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. 68  
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 December 9, 1986, 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-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. 68 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.

8708260384 870817  
PDR ADOCK 05000387  
P PDR

3. This license amendment is effective upon startup following the third refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 17, 1987

PDI-2/VA  
WButler  
7/2/87

PDI-2/PM  
Mhadani:ca  
7/2/87

OGC  
WButler  
7/2/87

PDI-2/D  
WButler  
8/16/87

3. This license amendment is effective upon startup following the third refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: **August 17, 1987**

ATTACHMENT TO LICENSE AMENDMENT NO. 68

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. The overleaf pages are provided to maintain document completeness.\*

REMOVE

3/4 6-21\*  
3/4 6-22

3/4 8-31\*  
3/4 8-32

INSERT

3/4 6-21\*  
3/4 6-22

3/4 8-31\*  
3/4 8-32

TABLE 3.6.3-1 (Continued)  
PRIMARY CONTAINMENT ISOLATION VALVES

<u>VALVE FUNCTION AND NUMBER</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>	<u>ISOLATION SIGNAL(s)<sup>(a)</sup></u>
<u>Automatic Isolation Valves (Continued)</u>		
<u>Containment Atmosphere Sample</u>		
SV-15734 A,B	N/A	B,Y
SV-15736 A	N/A	B,Y
SV-15736 B	N/A	B,Y
SV-15740 A,B	N/A	B,Y
SV-15742 A,B	N/A	B,Y
SV-15750 A,B	N/A	B,Y
SV-15752 A,B	N/A	B,Y
SV-15774 A,B	N/A	B,Y
SV-15776 A	N/A	B,Y
SV-15776 B	N/A	B,Y
SV-15780 A,B	N/A	B,Y
SV-15782 A,B	N/A	B,Y
<u>Nitrogen Makeup</u>		
SV-15737	N/A	B,Y,R
SV-15738	N/A	B,Y,R
SV-15767	N/A	B,Y,R
SV-15789	N/A	B,Y,R
<u>Reactor Coolant Sample</u>		
HV-143F019	2	B,C
HV-143F020	2	B,C
<u>Liquid Radwaste</u>		
HV-16108 A1,A2	15	B,Z
HV-16116 A1,A2	15	B,Z
<u>RHR - Suppression Pool</u>		
<u>Cooling/Spray<sup>(c)</sup></u>		
HV-151F011 A,B	23	X,Z
HV-151F028 A,B	90	X,Z
<u>CS Test<sup>(b)(c)</sup></u>		
HV-152F015 A,B	60	X,Z
<u>WPCI Suction<sup>(b)(c)</sup></u>		
HV-155F042	90	L, LB

*effective upon startup following the Unit 1 second refueling outage.*

TABLE 3.6.3-1 (Continued)  
PRIMARY CONTAINMENT ISOLATION VALVES

<u>VALVE FUNCTION AND NUMBER</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>	<u>ISOLATION SIGNAL(s)<sup>(a)</sup></u>
<u>Automatic Isolation Valves (Continued)</u>		
<u>Suppression Pool Cleanup<sup>(b)</sup></u>		
HV-15766	30	A,Z
HV-15768	30	A,Z
<u>HPCI Vacuum Breaker</u>		
HV-155F075	15	LB,Z
HV-155F079	15	LB,Z
<u>RCIC Vacuum Breaker</u>		
HV-149F062	10	KB,Z
HV-149F084	10	KB,Z
<u>TIP Ball Valves<sup>(d)</sup></u>		
C51-J004 A,B,C,D,E	5	A,Z
b. <u>Manual Isolation Valves</u>		
<u>MSIV-LCS Bleed Valve</u>		
HV-139F001 B,F,K,P		
<u>Feedwater<sup>(e)</sup></u>		
HV-141F032 A,B		
<u>RWCU Return</u>		
HV-14182 A,B		
<u>RCIC Injection</u>		
HV-149F013		
1-49-020		



TABLE 3.8.4.2.1-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION CONTINUOUS

<u>VALVE NUMBER</u>	<u>SYSTEM(S) AFFECTED</u>
HV-E51-1F019	RCIC
HV-E51-1F060	RCIC
HV-E51-1F059	RCIC
HV-E51-1F022	RCIC
HV-E51-1F062	RCIC
HV-E41-1F012	HPCI
HV-E41-1F001	HPCI
HV-E41-1F011	HPCI
HV-E41-1F006	HPCI
HV-E41-1F079	HPCI
HV-E41-1F059	HPCI
HV-E41-1F004	HPCI
HV-E41-1F003	HPCI
HV-E41-1F042	HPCI
HV-E41-1F075	HPCI
HV-E41-1F008	HPCI
HV-E41-1F007	HPCI
HV-E41-1F066	HPCI
HV-G33-1F004	HPCI
HV-B21-1F019	RWCU
HV-E11-1F008	NSSS
HV-E11-1F023	RHR
HV-E11-1F049	RHR
HV-B31-1F032A	RHR
HV-B31-1F032BB	RX RECIRC
HV-B31-1F031A	RX RECIRC
HV-B31-1F031B	RX RECIRC
HV-14182A	RX RECIRC
HV-14182B	RWCU
	RWCU



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 68 TO FACILITY OPERATING LICENSE NO. NPF-14

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

1.0 INTRODUCTION

By letter dated December 9, 1986, Pennsylvania Power & Light Company requested an amendment to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station (SSES), Unit 1. The proposed amendment would revise the SSES, Unit 1 Technical Specifications to support modifications which would improve the containment isolation function and the testability of the feedwater system.

Specifically, the proposed changes consist of:

(1) a change to Table 3.6.3-1 (Primary Containment Isolation Valves) replacing two reactor water cleanup (RWCU) manual isolation valves with two new gate valves. The valves being replaced (HV-144F042 and HV-144F104) are not being removed from the plant, but will not serve as containment isolation valves; and

(2) two new containment isolation valves, HV-14182A&B, are being added to the list of valves in Table 3.8.4.2-1 (Motor-Operated Valves Thermal Overload Protection). These valves are equipped with thermal overload bypass circuitry.

The licensee, by a letter dated April 4, 1986, requested an identical change for SSES Unit No. 2. The Commission approved that request in Amendment No. 28 to Facility Operating License No. NPF-22, dated August 27, 1986.

2.0 EVALUATION

As stated above, the changes proposed by the licensee from SSES Unit No. 1 are identical to changes approved by the staff for SSES Unit No. 2 in Amendment No. 28. In that Amendment the staff found the proposed changes acceptable for the following reasons.

8708260390 870817  
PDR ADDCK 05000387  
P PDR

1. The new manual isolation valves HV-14182A&B are gate valves and will provide improved long term leakage control capability for the RWCU system in comparison with the previously existing globe valves HV-144F042 and HV-144F104.
2. The new valves will be remote manually operated from the control room like the existing valves.
3. The new gate valves will be located downstream of the check valves G33-1F039A&B, and will be closer to the containment than the existing globe valves. This will eliminate long piping run between the test point and the valve in each branch connection to the feedwater penetration and consequently will improve the leak testability of the feedwater system.
4. The addition of two new gate valves will not alter the present function of instantaneous reverse flow isolation provided by the check valves mentioned above. Therefore, two barriers, i.e., the check valve and the new manual isolation valve will continue to be available for performing the isolation of each branch connection of the RWCU system return line to the feedwater penetration, as present in the previous design.
5. The safety-related function of the existing feedwater isolation valves for the feedwater lines as approved in Susquehanna, Units 1 and 2, Safety Evaluation Report Section 6.2.4.1, dated April 1981, will not be altered by the proposed addition of the two aforementioned valves.
6. The new valves will be equipped with thermal overload bypass circuits and thus are protected against possible thermal overloads. These valves have been added to Table 3.8.4.2-1. These valves also receive emergency power from the diesel generators. The additional load to the diesels has been incorporated in the plant design.

Based on the above, the staff concludes that the proposed changes to Tables 3.6.3-1 and 3.8.4.2-1 of the Unit 1 Technical Specifications are acceptable. Our acceptance is based on our findings that the design changes associated with the Technical Specifications changes will: 1) improve the containment isolation function and the testability of the feedwater penetration during local leak rate testing, 2) continue to provide dual barriers for the RWCU return lines as previously available, 3) retain the existing throttling function of the RWCU flow as appropriate to support the RWCU operation, and 4) protect the new motor-operated manual isolation valves against possible thermal overload.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets 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 nor environmental assessment need be prepared in connection with the issuance of this amendment.

#### 4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (52 FR 26592) on July 15, 1987 and consulted with the State of Pennsylvania. No public comments were received, and the State of Pennsylvania did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: Mohan C. Thadani

Dated: August 17, 1987