

June 7, 1993

Docket No. 50-387

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

Dear Mr. Byram:

SUBJECT: SUPPRESSION POOL FILTER PUMP AND VALVE ISOLATION LOGIC CHANGES,  
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1 (PLA-3951) (TAC NO.  
M86165)

The Commission has issued the enclosed Amendment No. 125 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. This amendment is in response to your letter dated April 5, 1993.

This amendment revises the Technical Specifications to change the isolation signal for suppression pool cleanup line valves HV-15766 and HV-15768 from reactor vessel low water level 3 (+13") or high drywell pressure to reactor vessel low water level 2 (-38") or high drywell pressure.

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

Sincerely, Original signed by  
Richard J. Clark  
Richard J. Clark, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 125 to License No. NPF-14
2. Safety Evaluation

cc w/enclosures:

See next page

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

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Senior Vice President-Nuclear  
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Sincerely,

A handwritten signature in black ink, appearing to read "Richard J. Clark", written over a circular stamp or seal.

Richard J. Clark, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Robert G. Byram  
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station,  
Units 1 & 2

cc:

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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. 125  
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 April 5, 1993, 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.

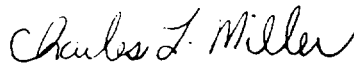
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-14 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 125 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 prior to startup in Fuel Cycle No. 8, currently projected to occur November 4, 1993.

FOR THE NUCLEAR REGULATORY COMMISSION



Charles L. Miller, 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: June 7, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 125

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following page of the Appendix A Technical Specifications with enclosed page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change. The overleaf page is provided to maintain document completeness.\*

REMOVE

3/4 6-21  
3/4 6-22

INSERT

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

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-151F028 A,B	90	X,Z
<u>CS Test<sup>(b)(c)</sup></u>		
HV-152F015 A,B	60	X,Z
<u>HPCI Suction<sup>(b)(c)</sup></u>		
HV-155F042	90	L,LB



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 125 TO FACILITY OPERATING LICENSE NO. NPF-14  
PENNSYLVANIA POWER AND LIGHT COMPANY  
ALLEGHENY ELECTRIC COOPERATIVE, INC.  
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1  
DOCKET NO. 50-354

1.0 INTRODUCTION

By letter dated April 5, 1993, the Pennsylvania Power and Light Company (the licensee) submitted a request for changes to the Susquehanna Steam Electric Station (SSES), Unit 1, Technical Specifications (TS). The requested changes would revise the TSs to change the isolation signal for suppression pool cleanup line valves HV-15766 and HV-15768 from reactor vessel low water level 3 (+13") or high drywell pressure to reactor vessel low water level 2 (-38") or high drywell pressure. The same change was approved for SSES, Unit 2, by Amendment No. 92, issued on October 29, 1992.

The suppression pool is used to absorb the energy released during a Loss of Coolant Accident (LOCA) or safety/relief valve (SRV) operation, and to serve as a source of water for the Emergency Core Cooling Systems (ECCS). Since pool water may be introduced into the reactor vessel, the capability to maintain or improve water quality is provided by a cleanup line. This line is utilized to transfer water from the pool to the condenser hotwell where it can be filtered by passing through the condensate demineralizers. The cleanup line may also be used to lower the suppression pool water level.

This change is being proposed by the licensee to increase the likelihood that the cleanup line will remain available (unisolated) for suppression pool level control following plant transients. This is accomplished by increasing the margin between reactor vessel water levels during normal operation and the water level that results in isolation of the cleanup line. The licensee indicates that this change will also reduce operator burden during plant cooldown by eliminating the need to repeatedly reset the isolation logic should additional isolations of the cleanup line occur.

2.0 EVALUATION

The safety functions of the cleanup line are to automatically isolate, following a LOCA inside containment to limit radiological releases, and to provide the capability to manually isolate following a pipe break outside containment to prevent a loss of water from the suppression pool. The safety

function of the suppression pool is to provide a source of water for ECCS and to absorb energy released during a LOCA or SRV operation. The SSES Final Safety Analysis Report (FSAR), Chapters 6 & 15 and the Design Assessment Report were reviewed by the licensee to determine the effect of changing the isolation signal on the transient and accident analysis. The licensee states that applicable containment analyses were not affected because these analyses are already based on a level 2 cleanup line isolation. The licensee further states that the design basis radiological release analysis remains bounded because this analysis is independent of the isolation signal used.

The licensee also indicated that after the construction of SSES was completed, General Electric Company (GE) specified the design requirement for isolation of the cleanup line as reactor vessel low water level 2 or high drywell pressure (Reference: GE Specification No. 22A7239, Nuclear Steam Supply Shutoff System). Since the proposed modification changes the isolation signal from level 3 to level 2, the design requirement remains satisfied and the safety function of automatic isolation following a LOCA is not impacted. In addition, the hardware used for the level 2 signal is identical in design, material, and construction to that used for level 3. Because the modification only changes the automatic isolation signal, manual isolation is unaffected.

As a positive impact on plant operation due to the proposed change, the licensee indicates that the increase in availability of the cleanup line allows the plant operator to reduce pool water levels should they increase over the high level setpoint. Lower pool water levels result in lower loadings to the suppression pool structure and submerged components in the pool during a LOCA or SRV operation.

Based on the above discussion, the licensee's statements in the submittal that the applicable containment analyses in the FSAR will not be affected due to the proposed change in the TS, and also that the design basis radiological release analysis remains bounded, the staff finds the change acceptable.

### 3.0 STATE CONSULTATION

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

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 the amendment involves no significant hazards consideration, and there has been no

public comment on such finding (58 FR 25862). Accordingly, the 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 or environmental assessment need be prepared in connection with the issuance of the amendment.

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

Principal Contributors: M. Razzaque  
R. Clark

Date: June 7, 1993