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

OCT 30 1985

Docket No. 50-387

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

Dear Mr. Keiser:

SUBJECT: AMENDMENT NO. 50 TO FACILITY OPERATING LICENSE NO. NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 50 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. This amendment is in response to your letter dated August 6, 1985. This amendment revises the Unit 1 Technical Specifications to reflect the incorporation of the nitrogen makeup system plant modifications.

A copy of the related safety evaluation supporting Amendment No. 50 to Facility Operating License NPF-14 is enclosed.

Sincerely,

Walter R. Butler

Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Enclosures:
1. Amendment No. 50 to NPF-14
2. Safety Evaluation

cc w/enclosure:
See next page

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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. 50
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:

   A. The application for an amendment filed by the Pennsylvania Power & Light Company, dated August 6, 1985 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 the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. 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. 50, 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.

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3. This amendment is effective upon startup following the Unit 1 second refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: OCT 30 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 50
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.

REMOVE	INSERT
3/4 6-21	3/4 6-21
3/4 6-22	3/4 6-22

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER		MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNAL(s)[a]
Automatic Isolation Valves (Continued)			
Containment Atmosphere Sample			
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
Nitrogen Makeup			
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
Reactor Coolant Sample			
HV-143F019		2	B,C
HV-143F020		2	B,C
Liquid Radwaste			
HV-16108	A1,A2	15	B,Z
HV-16116	A1,A2	15	B,Z
RHR - Suppression Pool Cooling/Spray[c]			
HV-151F011	A,B	23	X,Z
HV-151F028	A,B	90	X,Z
CS Test[b][c]			
HV-152F015	A,B	60	X,Z
HPCI Suction [b][c]			
HV-155F042		90	L,LB

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNAL(s)[a]
Automatic Isolation Valves (Continued)		
Suppression Pool Cleanup[b]		
HV-15766	30	A,Z
HV-15768	30	A,Z
HPCI Vacuum Breaker		
HV-155F075	15	LB,Z
HV-155F079	15	LB,Z
RCIC Vacuum Breaker		
HV-149F062	10	KB,Z
HV-149F084	10	KB,Z
TIP Ball Valves [d]		
C51-J004 A,B,C,D,E	5	A,Z
b. Manual Isolation Valves		
MSIV-LCS Bleed Valve		
HV-139F001 B,F,K,P		
Feedwater[e]		
HV-141F032 A,B		
RWCU Return		
HV-144F042		
HV-144F104		
RCIC Injection		
HV-149F013		
1-49-020		

UNITED STATES
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SAFETY EVALUATION

AMENDMENT NO. 50 TO NPF-14

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

DOCKET NO. 50-387

Introduction

In a letter dated August 6, 1985, the Pennsylvania Power and Light Company, proposed a change to the Susquehanna Steam Electric Station Unit 1 Technical Specifications to reflect physical plant changes in the nitrogen makeup system to be completed during the Unit 1 second refueling outage.

Evaluation

The requested amendment would change the Technical Specifications for Susquehanna SES, Unit 1 to correspond with certain proposed design changes to the nitrogen makeup system.

In License Event Report No. 83-114, dated September 13, 1983, PP&L notified the NRC staff of the discovery of a postulated single failure event in the Division II Primary Containment Isolation System (PCIS) logic that could have resulted in the failure to isolate the nitrogen supply line. The PCIS Division II relay provides a closure signal to the outboard isolation valve of the drywell nitrogen supply system and the inboard isolation valve of the containment atmosphere control sample system. The drywell nitrogen supply line taps into the containment atmosphere sample line between the inboard valve and the outboard valve. With the nitrogen makeup system in service coincident with a loss of coolant accident (LOCA), the PCIS Division II relay could fail in such a manner as to maintain the outboard isolation valve of the drywell nitrogen supply system and the inboard isolation valve of the containment atmosphere control sample system in the open position. This configuration could create a direct path from the primary containment to the outside environment given the postulated single failure concurrent with a LOCA. A similar scenario can be postulated for the isolation valve in the suppression chamber nitrogen supply system and the inboard isolation valve for the containment atmosphere return line.

The licensee proposed design changes to correct this deficiency. These changes consist of rerouting the drywell and wetwell makeup lines to spare penetrations and installing divisionalized isolation valves. The inboard valves will have Division I power and logic, and the outboard valves will be with Division II.

To ensure that the Technical Specification properly reflect the installation of the modifications to the nitrogen makeup system the licensee had proposed changes to Table 3.6.3-1. These changes included the addition of two new isolation valves, SV-15738 and SV-15789. Two valves currently listed under

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the Containment Atmosphere Sample category, SV-15737 and SV-15767, have been deleted and moved to the newly formed category "Nitrogen Makeup", since in this new configuration, they are no longer in the atmosphere sampling lines. The isolation signals for this new category are "B", Reactor Vessel Water Level - Low, Low Level 2; "Y", Drywell Pressure - High; and "R", SGTS Exhaust Radiation - High.

Valves SV-15736B and SV-15776B are now dedicated to the sampling lines. Therefore the "R" isolation signal, SGTS Exhaust Radiation-High, is no longer applicable and is being deleted from the Technical Specifications for these valves.

The licensee has stated that all engineering has been performed in accordance with plant design criteria and assures that the required installation will not impact safety-related systems. The results of the most recent integrated leak rate test will be adjusted based on local leak rate testing of the new nitrogen makeup system configuration, when it is installed. Bypass leakage effects discussed in FSAR Subsections 6.2.3 and 6.2.1.1.5 will not be changed due to this modification.

Design of the new penetrations, isolation valves and isolation circuitry is in accordance with the existing design basis of the plant.

The licensee has also stated that this change will increase the safety margin of the plant by ensuring that a single failure in the nitrogen makeup system isolation logic will not allow an uncontrolled release of radiation to the environment following a design basis accident.

Based on the NRC staff's review of the licensee's proposed changes, the staff finds these changes acceptable. Additionally the staff finds that this change will enhance safety and agrees with the licensee's assessment in this regard.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the 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 or environmental assessment need be prepared in connection with the issuance of this amendment.

Conclusions

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: OCT 30 1985

Docket No. 50-387

OCT 3 1 1985

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3. This amendment is effective upon startup following the Unit 1 second refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

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