July 3, 1990

Docket Nos. 50-387/388

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

Dear Mr. Keiser:

SUBJECT: CORRECTION TO TRIP LOGIC FOR ATWS - RPT, SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. 73121 AND 73122)

The Commission has issued the enclosed Amendment No. 98 to Facility Operating License No. NPF-14 and Amendment No. 66 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments are in response to your letter dated February 28, 1989, as revised October 2, 1989.

These amendments change Technical Specifications to correct errors in assumption that the trip logic for the anticipated transients without scram reactor pump trip (ATWS-RPT) was configured as one out of two per trip system instead of the correct logic, which is two out of two per trip system.

During our review, we noted that the Bases for the applicable limiting condition for operation do not reflect the fact that ATWS-RPT has been installed. Accordingly, the Bases should be revised to provide the necessary explanation.

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/

Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 98 to License No. NPF-14
2. Amendment No. 66 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

[73121/2]

PDI-2/LA	PDI-2/PM	PDI-2/D	OGC
MO'Brien	MThadani:mj	Butler	EBachmann
6/ /90	6/20/90	7/3/90	6/21/90

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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. 98
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 28, 1989, as revised October 2, 1989, 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. 98 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 license amendment is effective as of its date of issuance.

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: July 3, 1990

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	MThadani:mj	EGoodman	WButler
6/29/90	6/20/90	6/21/90	7/3/90

ATTACHMENT TO LICENSE AMENDMENT NO. 98

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 page is identified by Amendment number and contains vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE	INSERT
3/4 3-37	3/4 3-37
3/4 3-38	3/4 3-38*

TABLE 3.3.4.1-1

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM(a)
1. Reactor Vessel Water Level - Low Low, Level 2	2
2. Reactor Vessel Steam Dome Pressure - High	2

(a) One channel or trip system may be placed in an inoperable status for up to 2 hours for required surveillance provided the other trip system channel is OPERABLE. Upon determination that a trip setpoint cannot be restored to within its specified value during performance of the CHANNEL CALIBRATION, the appropriate ACTION shall be followed.

TABLE 3.3.4.1-2

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. Reactor Vessel, Water Level - Low Low, Level 2	$\geq$ - 38 inches*	$\geq$ - 45 inches
2. Reactor Vessel Steam Dome Pressure - High	$\leq$ 1135 psig	$\leq$ 1150 psig

*See Bases Figure B3/4 3-1.

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

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. 66
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 28, 1989, as revised October 2, 1989, 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. 66 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.

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: July 3, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 66

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 page is identified by Amendment number and contains vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE	INSERT
3/4 3-37	3/4 3-37
3/4 3-38	3/4 3-38*

TABLE 3.3.4.1-1

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM[a]
1. Reactor Vessel Water Level - Low Low, Level 2	2
2. Reactor Vessel Steam Dome Pressure - High	2

(a) One channel or trip system may be placed in an inoperable status for up to 2 hours for required surveillance provided the other trip system channel is OPERABLE. Upon determination that a trip setpoint cannot be restored to within its specified value during performance of the CHANNEL CALIBRATION, the appropriate ACTION shall be followed.

TABLE 3.3.4.1-2

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. Reactor Vessel, Water Level - Low Low, Level 2	$\geq$ - 38 inches*	$\geq$ - 45 inches
2. Reactor Vessel Steam Dome Pressure - High	$\leq$ 1135 psig	$\leq$ 1150 psig

*See Bases Figure B3/4 3-1.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. NPF-14 AND AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. NPF-22

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NOS. 50-387 AND 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated February 28, 1989, as revised October 2, 1989, Pennsylvania Power & Light Company (the licensee) requested amendments to Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. The proposed amendments would change the Technical Specifications in Table 3.3.6.1-1, to correct an error in trip logic for the ATWS-RPT. The licensee states that the Technical Specifications erroneously reflect the logic to be configured as one out of two per trip system, instead of two out of two.

2.0 EVALUATION

In its letters the licensee points out that the trip logic for the ATWS-RPT was incorrectly assumed to be configured as one out of two per trip system and that footnote "a" to T.S. Table 3.3.4.1-1 was written to reflect that particular logic and could be interpreted to allow a channel of trip system 1 to be made inoperable for testing or maintenance for up to two hours provided the other channel in that trip system is operable. When applied to the existing two out of two logic, this interpretation would immediately disable the one trip system and could allow the redundant trip system to be disabled also because no operability requirements are placed on it thus resulting in the potential complete loss of the ATWS-RPT. The licensee states that the trip logic is two out of two and proposes to change the wording of footnote "a" to reflect the correct logic configuration. The proposed revision of the footnote will require the redundant trip system to be operable during the time the first trip system is inoperable for surveillance or maintenance. The second sentence of the footnote will ensure that the outage time does not exceed the original two hour limitation without entering the required action at the time it is determined that other than normal surveillance test procedures are needed to restore the system to operable status.

Our review of FSAR Sections 7.6.1a.8, 7.7.1.3.3.2.1 and FSAR Figure 7.7-7 (sheet 6) confirms that the trip logic is configured as two out of two per trip system and that each trip system will trip both recirculation pumps. The staff also agrees that the proposed changes to the statement more accurately

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reflect the existing ATWS-RPT logic and that the added sentence will ensure that the appropriate required action begins at the time it is determined that other than normal surveillance test procedures are needed to restore the channel to operable status.

During this effort, the staff reviewed the Bases for the limiting condition for operation (LCO) and found that it needed to be revised to reflect that an ATWS-RPT has been installed and to properly describe the ATWS-RPT trip and actuation logic. Accordingly, the Bases should be revised to provide the appropriate support for this LCO.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to a requirement with respect to 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 these 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (55 FR 6113) on February 21, 1990 and consulted with the Commonwealth of Pennsylvania. No public comments were received, and the Commonwealth 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 these amendments will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: July 3, 1990

Principal Contributor:

D. Lasher