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Docket No.: 50-387

Mr. Norman W. Curtis
Vice President
Engineering and Construction Nuclear
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

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Region I

Dear Mr. Curtis:

Subject: Amendment No. 12 to Facility Operating License No. NPF-14 - Susquehanna Steam Electric Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 12 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letter dated September 14, 1982 as amended by licensee letter dated October 29, 1982. The amendment modifies the license condition regarding qualification and operation of containment vent and purge valves.

A copy of the related safety evaluation supporting Amendment No.12 to Facility Operating License NPF-14 is enclosed. Also enclosed is a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No.12 to NPF-14
- 2. Safety Evaluation
- 3. Federal Register Notice

cc: See next page

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SURNAME	RPerch:pt	EHylton	CUTCHIN	ASchvencer	TNovak	DEisenhut	
DATE	12/21/82	1/16/83	1/31/83	2/10/83	2/17/83	3/9/83	

Susquehanna

Mr. Norman W. Curtis
Vice President
Engineering and Construction
Pennsylvania Power & Light Company
Allentown, Pennsylvania 18101

ccs: Jay Silberg, Esquire
Shaw, Pittman, Potts & Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

Edward M. Nagel, Esquire
General Counsel and Secretary
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Mr. William E. Barberich
Nuclear Licensing Group Supervisor
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Mr. G. Rhodes
Resident Inspector
P. O. Box 52
Shickshinny, Pennsylvania 18655

Gerald R. Schultz, Esquire
Susquehanna Environmental Advocates
P. O. Box 1560
Wilkes-Barre, Pennsylvania 18703

Mr. E. B. Poser
Project Engineer
Bechtel Power Corporation
P. O. Box 3965
San Francisco, California 94119

Dr. Judith H. Johnsrud
Co-Director
Environmental Coalition on Nuclear Power
433 Orlando Avenue
State College, Pennsylvania 16801

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

Ms. Colleen Marsh
P. O. Box 538A, RD #4
Mountain Top, Pennsylvania 18707

Mr. Thomas J. Halligan
Correspondent
The Citizens Against Nuclear Dangers
P. O. Box 5
Scranton, Pennsylvania 18501

Mr. J. W. Millard
Project Manager
Mail Code 395
General Electric Company
175 Curtner Avenue
San Jose, California 95125

Robert W. Adler, Esquire
Office of Attorney General
505 Executive House
P. O. Box 2357
Harrisburg, Pennsylvania 17120

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. 12
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 Septemeber 14, 1982 as amended by licensee letter dated October 29, 1982 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;
 - 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 in paragraph 2.C.(5) of the Facility Operating License No. NPF-14 to read as follows:

(5) Qualification of Purge Valves

Whenever the operational condition is other than cold shutdown or refueling, PP&L shall maintain each containment purge and vent isolation valve greater than 2-in. nominal diameter in one of the following conditions:

- a) Closed and electrically prohibited from opening,
- b) Blocked so as not to permit opening by more than 50 degrees, or
- c) Operated to permit opening by more than 50 degrees after demonstrating that the valves are qualified to close from the full open position against peak LOCA pressure, and are also qualified per the criteria of Branch Technical Position CSB 6-4. Purge

valve qualification documentation must be approved by the NRC prior to operating valves in this mode.

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3. This amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance:

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SURNAME	RPerch:pt	EH	OBICHIN	ASchwencer	T	Eisenhut	
DATE	1/26/83	1/26/83	1/31/83	2/7/83	2/9/83	3/9/83	

No objection to this amendment SER review not requested.

SAFETY EVALUATION
AMENDMENT NO. 12 TO NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-387

Introduction

In letters dated August 25, 1982 and September 14, 1982, the licensee identified the following as the Containment Vent and Purge System Valves. For clarification, these valves are grouped by line sizes:

Valves in lines no greater than 2 inches in diameter:

HV-15705, HV-15711, SV-15736A, SV-15737, SV-15767, and SV-15776A

Valves in 6-inch lines:

HV-15721

Valves in 18-inch lines:

HV-15703, HV-15704, HV-15724, and HV-15725

Valves in 24-inch lines:

HV-15713, HV-15714, HV-15722, and HV-15723

The licensee, in the September 14, 1982 letter, as amended by the licensee letter dated October 29, 1982 (PLA-1372), proposed an amendment to License Condition 2.C.(5) to the operating license for Susquehanna Steam Electric Station, Unit 1 to:

- a) permit the operation of purge valves HV-15704, HV-15714, HV-15721, HV-15722, HV-15723, HV-15724, and HV-15725 after these valves have been blocked so as not to permit opening by more than 50 degrees,
- b) clarify the blocking of valves to a maximum opening or maintenance of valves in the closed position as only required for operational conditions other than cold shutdown or refueling, and
- c) provide, prior to startup following the first refueling outage, purge valve qualification documentation which demonstrates the purge supply and exhaust isolation valves are qualified to close from the full open position against peak LOCA pressure.

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Safety Evaluation

For the valves listed above in lines no greater than 2 inches in diameter, the licensee has stated that these valves have been qualified. Since these valves are in lines less than 3 inches in diameter, the staff accepts the licensee's statement of qualification as being consistent with NRC staff requirements as stated in NUREG-0737, Action Item II.E.4.2.

For the 6-inch valve, the staff previously accepted the qualification of this valve as stated in Supplement No. 4 to the Susquehanna Safety Evaluation Report.

The staff had concerns regarding the qualification of the valves in the 18-inch and 24-inch lines. ASME or American Institute of Steel Construction (AISC) allowable levels should be used for a shear analysis on valve internals and parts that are required for the valve to perform its safety function. In Supplement No. 4 to the Susquehanna Safety Evaluation Report, the licensee was requested to use a conservative allowable shear stress of $0.4S_y + 12,000$ psi (AISC). When the valves are analyzed under full open conditions, the valve top pins for the 18-inch and 24-inch valves were the only components of the valves determined to have stress levels that would exceed conservative allowable levels.

In a letter dated October 29, 1982 (PLA-1371), the licensee provided additional containment vent and purge valve qualification information which provided disc pin stresses for the 18-in. and 24-in. containment purge valves calculated at various blocking angles. The actual top pin stresses calculated with the valves blocked to 50 degrees is 6208 psi for the 18-in. valves and 7160 psi for the 24-in. valves. When blocked to 50 degrees, therefore, the 18-in. and 24-in. valve top pin stress levels were below conservative allowable levels.

Based on the above, all 18-inch, and 24-inch purge and vent valves are acceptable for operation provided they are blocked to a maximum opening of 50 degrees or less. All purge and vent valves 2 inches and smaller, and the 6-inch valve are operable without blocking based on being qualified valves.

The staff proposed alternate language for revising License Condition 2.C.(5) which was discussed with and agreed to by the licensee. The alternate language provides the requested clarification regarding cold shutdown and refueling operations, requires that valves restricted to operation at maximum openings of 50 degrees or less (18-inch and 24-inch valves) be kept closed until physically blocked to 50 degrees or less, and allows the maximum 50 degree opening restriction to be removed based upon approval by the NRC staff of appropriate qualification documentation.

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On the basis of this evaluation, License Condition 2.C.(5) is changed to read:

(5) Qualification of Purge Valves

Whenever the operational condition is other than cold shutdown or refueling, PP&L shall maintain each containment purge and vent isolation valve greater than 2-in. nominal diameter in one of the following conditions:

- a) Closed and electrically prohibited from opening,
- b) Blocked so as not to permit opening by more than 50 degrees, or
- c) Operated to permit opening by more than 50 degrees after demonstrating that the valves are qualified to close from the full open position against peak LOCA pressure, and are also qualified per the criteria of Branch Technical Position CSB 6-4. Purge valve qualification documentation must be approved by the NRC prior to operating valves in this mode.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact, and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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: MAR 9 1983

OFFICE	DL:LB#21PM	DE:EOB/BO	DSI:CSB/B				
SURNAME	RPerch:pt	VNoonan	WButler				
DATE	2/26/83	3/4/83	3/4/83				

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-387

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY

OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 12 to Facility Operating License No. NPF-14, issued to Pennsylvania Power & Light Company and Allegheny Electric Cooperative, Inc., for Susquehanna Steam Electric Station, Unit 1 (the facility) located in Luzerne County, Pennsylvania. This amendment modifies license condition 2.C.(5) to clarify blocking or maintenance of valves in the closed position as only being required in operational conditions other than cold shutdown or refueling, and requires the licensee to maintain each containment purge and vent isolation valve greater than 3-in. nominal diameter in one of the following conditions: 1) closed and electrically prohibited from opening, 2) blocked so as not to permit opening by more than 50 degrees, or 3) operated to permit opening by more than 50 degrees after demonstrating that the valves are qualified to close from the full open position against peak LOCA pressure, and are also qualified per the criteria of Branch Technical Position CSB 6-4. This amendment is effective as of the date of issuance.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for the amendment dated September 14, 1982 as amended by licensee letter dated October 29, 1982; (2) Amendment No. 12 to License HPF-14, dated **MAR 9 1983**; and (3) the Commission's evaluation dated **MAR 9 1983**. All of these items are available for public inspection at the Commission's Public Document Room 1717 H Street, N. W., Washington, D. C. 20555, and at the Osterhout Free Library, Reference Department, 71 South Franklin Street, Wilkes-Barre, Pennsylvania 18701. A copy of items (1), (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 9th day of March 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

OFFICE ▶	DL:LB#2/BA	DL:LB#2/LA	OELD	DL:LB#2/BC			
SURNAME ▶	RPerch:pt	EHolton	CUTCHIN	ASchwencer			
DATE ▶	12/27/82	2/17/83	1/31/83	2/10/83			

No local objections to Bureau of PR notice
[Signature]

Date: 2/10/83

LICENSING BRANCH NO. 2
AMENDMENT ROUTE SLIP

- 1. ~~E. Hyllton - Concur~~ *X 28136 Bob Pouch*
- 2. ~~Project Manager~~ - Concur
- 3. ~~OELD~~ Concur
- 4. A. Schwencer - Concur/Sign *Robert for*
- 5. T. M. Novak - Concur

(OELD review is is not requested for SE)

6. Kerry/Patti - Dispatch

LETTER TO: to love of light TRANSMITTING AMENDMENT NO(S). _____

SUBJECT: Primitives

- (1) (a) No correspondence has been received related to the subject of this amendment, or
 - (b) Correspondence has been received, a copy of which is enclosed, which is or may be related to the subject of this amendment.
- (2) (a) Approval of this amendment will not result in an irreversible impact, or
 - (b) Approval of this amendment will result in an irreversible impact. Describe the irreversible impact.
- (3) (a) Recommend that this amendment be post noticed, or
 - (b) Recommend that this amendment be prenoticed.

Remarks: _____

FROM: LB#2/DL/NRR

MAIL STOP: 330
X27435