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

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2 (TAC NO. M92362)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 123 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station (SSES), Unit 2. This amendment is in response to your letter dated May 5, 1995, as supplemented by letter dated August 18, 1995.

This amendment deletes from SSES Technical Specification Table 3.6.3-1, "Primary Containment Isolation Valves," three relief valves in the residual heat removal system. These specific valves which were originally intended to support the steam condensing mode, were previously eliminated from the plant design. The valves are being replaced during the September Unit 2 refueling outage and will be replaced by blind flanges.

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/

Chester Poslusny, Senior Project Manager Project Directorate I-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket No. 50-388

Enclosures: 1. Amendment No. 123 to

License No. NPF-22

Safety Evaluation

cc w/encls: See next page

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#### **UNITED STATES NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

September 11, 1995

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

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Tipluen Chester Poslusny, Senior Project Manager

Project Directorate I-2

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket No. 50-388

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Safety Evaluation

cc w/encls: 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. 20555-0001

#### 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. 123 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 May 5, 1995, as supplemented by letter dated August 18, 1995, 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.123, 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 within 45 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Director

(Project Directorate 1/2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: September 11, 1995

## ATTACHMENT TO LICENSE AMENDMENT NO.123

## 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 pages are identified by Amendment number and contain vertical lines indicating the area of change.

**REMOVE** 

**INSERT** 

3/4 6-25

3/4 6-25

#### TABLE 3.6.3-1 (Continued)

#### PRIMARY CONTAINMENT ISOLATION VALVES

#### Valve Function and Number

#### Other Valves (Continued)

#### RHR - RELIEF VALVE DISCHARGE (G)

PSV-25106 A,B

CS INJECTION

HV-252F006 A,B

CS MINIMUM RECIRCULATION FLOW (g)(c)

HV-252F031 A,B

#### **CONTAINMENT INSTRUMENT GAS**

2-26-164

2-26-072

2-26-074

2-26-152

2-26-154

#### RECIRCULATION PUMP SEAL WATER

243F013

A,B

XV-243F017 A,B

## TIP SHEAR VALVES (d)

C51-J004 A,B,C,D,E

CS(b)

248F007

## HPCI TURBINE EXHAUST (b)

255F049

## HPCI MINIMUM RECIRCULATION FLOW (9)(c)

HV-255F012

255F046

## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO.123TO FACILITY OPERATING LICENSE NO. NPF-22

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE INC.

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

**DOCKET NO. 50-388** 

#### 1.0 INTRODUCTION

WICLEAR REGULAN

By letter dated May 5, 1995, as supplemented by letter dated August 18, 1995, the Pennsylvania Power and Light Company (PP&L) (the licensee) submitted a request for changes to the Susquehanna Steam Electric Station (SSES), Unit 2, Technical Specifications (TS). The requested changes would delete from SSES Technical Specification Table 3.6.3-1, "Primary Containment Isolation Valves," three relief valves in the residual heat removal system. The August 18, 1995, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination or expand the scope of the original Federal Register notice.

#### 2.0 BACKGROUND

In its submittal, PP&L indicated that in the original design of the SSES, the residual heat removal (RHR) system included a steam condensing mode. Since the time of licensing, this mode for the RHR system was eliminated from the plant. After the mode was eliminated, not all piping and valving was removed. A design change package has been developed which would remove three RHR system relief valves and would replace the valves with blind flanges or the equivalent. The proposed TS change would reflect this design change implementation by removing these three valves from the list of containment isolation valves from TS Table 3.6.3-1.

#### 3.0 **EVALUATION**

As indicated in the SSES Final Safety Analysis Report (FSAR), Valves PSV-251F055 A & B are pressure relief valves located on the RHR system steam supply line from HPCI steam supply between the RHR heat exchanger and the steam supply pressure control valves. This steam supply line was previously isolated by welded caps between the pressure control valves and the RHR system. As per the original design of the SSES units, these relief valves were originally provided to protect the RHR heat exchanger and its shell side inlet piping in the event both pressure control valves failed to open during the steam condensing mode of RHR. The discharge of the relief valves is directed to the suppression pool. As noted in the licensee's submittal, these valves were designed to remain closed to maintain RHR system integrity during

setpoint that could occur during the steam condensing mode. The size of these valves was established based on the design pressure of the piping and heat exchanger such that the design pressure would not be exceeded by more than 10% during the pressure transient with the pressure control valves in the full open position. PP&L also stated that these valves are no longer required for the following reasons:

- The steam condensing mode has been eliminated from the RHR system. Since
  the HPCI steam supply piping to the RHR heat exchangers was cut and
  capped, the potential for the overpressure condition due to pressure
  control valve failure in the steam line no longer exists.
- The RHR heat exchanger and associated piping are still protected from a pressure transient caused by thermal expansion by the thermal relief valves provided as part of the original design. The protection is provided by the heat exchanger shell relief valve when the RHR heat exchanger is isolated and by an additional relief valve when the heat exchanger is not isolated.
- The system and containment boundary integrity will be maintained by installing blind flanges or equivalent.

The third pressure relief valve which the licensee plans to remove is PSV-251F097. This valve is located on the RHR system condensate discharge line to RCIC pump suction. This valve was provided for overpressure protection in the event either control valve failed open during the steam condensing mode of operation. This valve was designed to remain closed to maintain the pressure integrity of the piping and to open when the pressure in the piping exceeds the relief setpoint. The size of this valve was established based on the design pressure of the RCIC pump suction piping such that the piping design pressure would not be exceeded by more than 10% during the pressure transient with the control valve in the full open position. As indicated in the PP&L submittal, this valve is no longer required for the following reasons:

- The steam condensing mode has been eliminated from the RHR system. The
  potential for an overpressure condition during or following a steam
  condensing mode of operation does not exist.
- In order to eliminate the potential for RHR pressurizing RCIC pump suction piping, the piping between the two systems will be isolated via blind flange or cut and cap.
- The RCIC suction piping is still protected from an overpressure condition by a pressure relief valve. This relief valve was provided to protect the RCIC pump suction piping from over-pressurization during standby conditions due to leakage into the RCIC system from higher pressure systems such as the Feedwater System.
- The system and containment boundary integrity will be maintained by installing a blind flange or equivalent.

In the staff's safety evaluation for the original containment isolation system design, NUREG-0776, April 1981, the staff reflected the results of the review of the containment isolation valves and associated piping and penetrations necessary to isolate the primary containment in the event of a loss-of coolant accident. The objective of the containment isolation system is to allow the normal or emergency passage of fluids through the containment boundary while preserving the integrity of the containment boundary to prevent or limit the escape of fission products from a postulated loss-of-coolant accident. The staff concluded in its evaluation that the proposed design of the containment isolation system satisfies the requirements of General Design Criteria 54, 55, 56, and 57 and was found to be acceptable.

As discussed above, the modifications made to delete the RHR steam condensing mode have been made. This has eliminated the need to allow the passage of fluids through these three containment boundaries and the need to open the isolation valves PSV-251F055A, PSV-251F055B, and PSV-251F097. The existing design with the valves maintained in a closed position meets the GDC listed above and therefore the replacement of each valve with a blind flange or equivalent will also meet these criteria. Further, in a letter dated August 18, 1995, the licensee indicated that these flanges will be local leak rate tested after installation and will be included in subsequent Type B local leak rate testing by virtue of their design. Based on the information discussed above and the fact that each of the penetrations will continue to maintain containment boundary integrity, the staff finds the proposed TS change deleting these three RHR valves from Table 3.6.3-1 to be acceptable.

#### 4.0 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.

#### 5.0 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 (60 FR 35083) and (60 FR 36449). 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.

#### 6.0 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 Contributor: C. Poslusny

Date: September 11, 1995