

September 13, 1995

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. M92002)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 125 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Unit 2. This amendment is in response to your letter dated March 31, 1995.

This amendment changes Technical Specification Section 6.9.3.2 to allow GE demonstration assemblies to be loaded into Susquehanna Unit 2, Cycle 8 core. The TS change involves adding the reference NEDE-24011-P-A-10, "General Electric Standard Application of Reactor Fuel," February 1991, to TS Section 6.9.3.2.

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
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. 125 to
License No. NPF-22
2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 13, 1995

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Sincerely,

A handwritten signature in cursive script, reading "Chester Poslusny", is positioned above the typed name.

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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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. 125
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 March 31, 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.

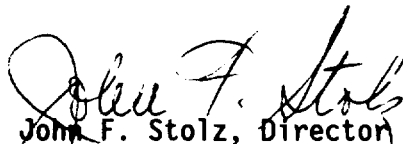
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-22 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 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 within 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, 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: September 13, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 125

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following page of the Appendix A Technical Specifications with enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

REMOVE

6-20b

INSERT

6-20b

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT (Continued)

14. XN-NF-512-P-A, Revision 1 and Supplement 1, Revision 1, "XN-3 Critical Power Correlation," October, 1982.
15. NEDC-32071P, "SAFER/GESTR-LOCA Loss of Coolant Accident Analysis," GE Nuclear Energy, May 1992.
16. NE-092-001A, Revision 1, "Licensing Topical Report for Power Uprate With Increased Core Flow," Pennsylvania Power & Light Company, December 1992.
17. NRC SER on PP&L Power Uprate LTR (November 30, 1993).
18. PL-NF-90-001, Supplement 1-A, "Application of Reactor Analysis Methods for BWR Design and Analysis: Loss of Feedwater Heating Changes and Use of RETRAN MOD 5.1," September 1994.
19. PL-NF-94-005-P-A, "Technical Basis for SPC 9x9-2 Extended Fuel Exposure at Susquehanna SES," January 1995.
20. NEDE-24011-P-A-10, "General Electric Standard Application for Reactor Fuel," February 1991.

6.9.3.3 The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, transient analysis limits and accident analysis limits) of the safety analysis are met.

6.10 RECORD RETENTION

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

- 6.10.1 The following records shall be retained for at least 5 years:
- a. Records and logs of unit operation covering time interval at each power level.



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-22
PENNSYLVANIA POWER & LIGHT COMPANY
ALLEGHENY ELECTRIC COOPERATIVE INC.
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2
DOCKET NO. 50-388

1.0 INTRODUCTION

By letter dated March 31, 1995, Pennsylvania Power & Light Company (PP&L) (the licensee) submitted a request for the Technical Specification (TS) change to allow four GE demonstration assemblies to be loaded into Susquehanna Unit 2, Cycle 8 core. The TS change involves adding the reference NEDE-24011-P-A-10, "General Electric Standard Application for Reactor Fuel," February 1991, to TS Section 6.9.3.2. This reference is the methodology for GE-12 type lead use assemblies approved by the NRC in letters dated March 17, 1989 and July 23, 1990.

The four demonstration assemblies are manufactured by General Electric and will be of the GE-12 fuel design. The GE-12 fuel design includes many features of the accepted GE-10 and GE-11/13 fuel designs, such as two large central water rods, high performance spacers, part length rod, etc.

2.0 EVALUATION

The licensee analyzed the demonstration assemblies in all aspects of safety concerns including neutronic, mechanical, thermal hydraulic, transient, and accident analyses based on the approved fuel licensing acceptance criteria. Because the analyses resulting from the use of the demonstration assemblies are bounded by those done for the remaining fuel in the reactor, the licensee concluded that the use of the GE-12 assemblies will not result in a change in safety margin and the use of GE methodology will ensure to maintain the safety margin for Unit 2, Cycle 8 core. The staff agrees with this conclusion. Inasmuch as these assemblies are test assemblies and the data from these assemblies will be used to achieve improved performance for future fuel design applications, we conclude that the licensee has provided adequate justification for the proposed use of these assemblies in Susquehanna Unit 2, Cycle 8.

The staff considers these demonstration assemblies as lead test assemblies (LTAs). In general, there are two criteria governing the use of LTAs:
(1) the total number of demonstration assemblies in one core should be

limited, and (2) the demonstration assemblies should not be loaded in limiting positions. The staff concludes that the licensee's demonstration program conforms to these criteria, and that these demonstration assemblies are acceptable for Susquehanna Unit 2, Cycle 8.

The licensee has added reference #18 to Section 6.9.3.2. Reference #18 is described as "NEDE-24011-P-A-10, General Electric Standard Application for Reactor Fuel, dated February 1991." Since this document describes the approved methodology used for safety analyses of the demonstration assemblies, we conclude that the reference #18 is acceptable for Section 6.9.3.2.

The staff has reviewed the licensee submittal of a Technical Specification change associated with the use of four demonstration assemblies for Susquehanna Unit 2, Cycle 8. Based on its evaluation, The staff approves the revised Technical Specification for the use of the four demonstration assemblies for Susquehanna Unit 2, Cycle 8.

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 (60 FR 20523). 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 Contributor: S. Wu

Date: September 13, 1995