

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

5 1989

- MEMORANDUM FOR: Chairman Palladino Commissioner Gilinsky Commissioner Ahearne Commissioner Roberts Commissioner Asselstine
- FROM: William J. Dircks Executive Director for Operations

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1 FULL POWER LICENSE PACKAGE

Enclosed are copies of the staff's briefing package for the forthcoming meeting with the Commission regarding full power operation of Susquehanna Steam Electric Station, Unit 1. The briefing slide, the proposed license Amendment authorizing full power operation and the draft Supplement No. 4 to the Susquehanna Safety Evaluation Report are included.

Recently the NRC staff was advised by Pennsylvania Power & Light Company concerning a potential problem with the Emergency Service Water System in meeting Emergency Core Cooling System criteria. A meeting with PP&L is being held on November 5 to discuss this potential problem. The resolution of this issue will be documented in a supplement to the Susquehanna Safety Evaluation Report and will be addressed at the briefing on November 12.

William J. Dircks Executive Director for Operations

Enclosures:

- 1. Briefing Slide
- 2. Proposed full power Amendment
- Draft Supplement No. 4 Susquehanna SER

CC: SECY OPE OGC

CONTACT: R. Perch, NRR x28136

# INDEPENDENT DESIGN REVIEW

- MEETINGS AND DISCUSSIONS PRIOR TO ISSUANCE OF FINAL REPORT
- . ASSESSMENT BY TELEDYNE FOR FINAL REPORT
- . ASSESSMENT BY THE NRC STAFF OF THE FINAL REPORT
- . EVENTS LEADING TO ADDENDUM TO FINAL REPORT
- . ADDENDUM TO FINAL REPORT
- . ANCHOR PROGRAM

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## OPERATING EXPERIENCE UPDATE



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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. 5 License No. NPF-14

- The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for a license filed by the Pennsylvania Power & Light Company and the Alleghany Electric Cooperative, Inc. (the licensees) 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: (1) 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 paragraphs 2.C.(1), 2.C.(5), 2.C.(13), 2.C.(16), 2.C.(18)(a), 2.C.(20), 2.C.(23), 2.G.(a), 2.I and the addition of paragraphs 2.C.(18)(d), 2.C.(18)(e), 2.C.(29), 2.C.(30), 2.C.(31), and 2.J to the Facility Operating License No. NPF-14 to read as follows:
  - (1) Maximum Power Level

Pennsylvania Power & Light Company (PP&L) is authorized to operate the facility at reactor core power levels not in excess of 3293 megawatts thermal in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

- (5) Qualification of Purge Valves (Section 6.2.4, SSER#1; 22, SSER#4)
  - a) PP&L shall block valves HV-15703 and HV-15713 so as not to permit opening by more than 50 degrees and shall lock-close all other nonqualified vent and purge valves in lines greater than 2-in. in

diameter, pending satisfactory qualification of the affected valves.

- b) By December 31, 1982, PP&L shall submit purge valve qualification documentation which shows the maximum opening of 18-in. and 24-in. valves for which the top pin shear stress will be within conservative allowables (<0.4 Sy) during the maximum torque loads of a LOCA and seismic event. PP&L shall implement changes approved by the staff after the completion of the staff's review of these documents.
- (13) Nearby Facilities (Section 2.2.2, SSER#3, SSER#4)

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- (a) PP&L shall submit a complete report for NRC review and approval delineating interim gas line flow restrictions to 39 m<sup>3</sup>/sec of natural gas.
- (b) By December 31, 1982, the approved interim gas line flow restrictions and procedures addressing system configuration changes shall be implemented.
- (c) By February 28, 1983, PP&L shall submit a report for NRC review and approval describing either:
  - Permanent modifications which limit flow to 39 m<sup>3</sup>/sec, or
    Relocation of the pipeline to a safe distance from the facility.
- (d) By September 30, 1984, the selected modification or relocation of the pipeline shall be completed.
- (16) Wetwell to Drywell Vacuum Breakers (Section 6.2.1.8, SSER#3, SSER#4)

Prior to startup following the first refueling outage, PP&L shall implement design modification on the wetwell/drywell vacuum breaker valves that include:

- a) installation of new disc assemblies, new shaft bearing caps; and
- replacement of the shaft, keys and turnbuckle with stronger materials.
- (18) Environmental Qualification (Section 3.11, SER, SSER#1, SSER#2, SSER#3, SSER#4)
  - (a) PP&L shall complete all actions related to environmental qualification of equipment on a schedule specified in Section 3.11 and Appendix 3.B of Supplement No. 3 of the Safety Evaluation Report with the exceptions of Section 3.11.5.(1) and Section 3.11.5.(2)(e).

- (d) By April 15, 1983, PP&L shall implement the maintenance and surveillance schedule for components requiring initial maintenance and surveillance after the first year of operation.
- (e) Prior to startup following the first refueling outage, PP&L shall implement the required equipment qualifications for equipment pursuant to Section 5.3 of NUREG-0803 for and SDV break environment.
- (20) Emergency Preparedness (Appendix D, SSER #1, SSER #2; 13.3, SSER #4)

By March 1, 1983, PP&L shall certify to the NRC staff the completion of the following offsite emergency preparedness items:

- (a) Adequate supplies of KI for offsite emergency workers are obtained by the State of Pennsylvania to fulfill the existing State plan or a contingency plan is reveloped that reflects the inability to obtain supplies to support the existing State plan.
- (b) Adequate supplies of dosimetry for offsite emergency workers are obtained by the State of Pennsylvania to implement the existing State plan or the State plan is revised accordingly.
- (c) State and county plans are modified as necessary to account for the abandonment of the field Emergency Operations Center concept.
- (23) Seismic and Dynamic Qualification (Section 3.10, SER, SSER#1, SSER#3, SSER#4)
  - (b) Prior to commencement of the first refueling outage, PP&L shall perform the nonlinear analysis to qualify the In-Vessel Rack (F22-E006) to the SQRT criteria and provide the qualification documentation to the NRC staff for review and approval.
  - (c) By December 31, 1982, PP&L shall provide the completed final qualification report for Main Steam Isolation Value Actuator (HV-1F022A through D, HV-1F028 A through D) to the NRC staff for review.
  - (d) PP&L shall implement the NRC staff's requirements after completion of the staff's review of the final qualification report for the Main Steam Isolation Valve Leakage Control System Heater (1E-203 A through D).

- (e) Before the 25-cycle operational limit is reached, PP&L shall replace Recirculation Discharge Valve assembly (HV-1F031 A and B) with fully qualified new assemblies including a new Limitorque actuator. The replacement actuators shall be wired for torque seating type operation.
- (f) Prior to startup following the first refueling outage, PP&L shall fully qualify the following items to the SQRT criteria and provide the final qualification reports to the NRC staff for review.
  - 1) CRD vent and drain valves (C12-F010/F011)
  - 2) Power Range Monitor Cabinet (H12-P608)
  - 3) Level Switch (E41-N014)
  - Level Switch Condensate Storage Tanks, Suppression Pool, HCPI Turbine Exhaust Drain Pot (E41-N002/N003, N015, N018)
  - 5) High Pressure Coolant Injection Turbine (15-211)

### (29) SRV Inplant Test (Section 6.2.1.8, SEP; 6.2.1.5, SSER#1)

Within 90 days following the staff receipt of the report providing the results of the inplant SRV test at the LaSalle, Unit 1 facility, PP&L shall furnish the results of its evaluation and application of the LaSalle data to assure that for Susquehanna Unit 1, the T between bulk and local pool temperatures will not exceed 10 F.

- (30) Dynamic Testing and Analysis of Systems, Components, and Equipment (Section 3.9.2, SSER#4)

  - (b) Prior to exceeding five percent of full power, PP&L shall verify that all check valves relied upon for containment isolation, either within or outside containment, are dynamically qualified or PP&L shall provide a basis for continued operation and a program for qualifying such valves.
- (31) Control Room Design Review (Section 22, SSER #4)

Prior to startup following the first refueling outage, PP&L shall provide a report discussing the experience, including demonstrated reliability, of the Display Control System.

- G. Reporting to the Commission:
  - (a) PP&L shall report any violations of the requirements contained in Section 2, Items C(1), C(3) through C(31), and F of this license within twenty-four (24) hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the NRC Regional Administrator, Region I, or designee, not later than the first working day following the violation, with written followup report within fourteen (14) working days.
- I. In accordance with the Commission's direction in its Statement of Policy, Licensing and Regulatory Policy and Procedures for Environmental Protection; Uranium Fuel Cycle Impacts, October 29, 1982. This license is subject to the final resolution of the pending litigation involving Table S-3. See, Natural Resources Defense Council v. NRC, No. 74-1586 (April 27, 1982).
- This license is effective as of the date of issuance and shall expire at midnight on July 17, 2022.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Date of Issuance:

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