



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NO. NPF-14 AND

AMENDMENT NO. 38 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

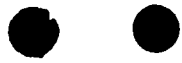
1.0 INTRODUCTION

By letter dated April 8, 1987, Pennsylvania Power & Light Company requested an amendment to Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. The proposed amendments would revise the SSES, Units 1 and 2 Technical Specifications (TSs) for the Sodium Pentaborate concentration in the Standby Liquid Control System (SLCS). The proposed change would permit an increase in the maximum allowable concentration of Sodium Pentaborate in the SLC system from the present value of 13.8% to proposed value of 15.8%. The minimum boron concentration of 660 ppm, which assures adequate shutdown margin, will remain unchanged. Increasing the maximum Sodium Pentaborate concentration from 13.8% would increase the saturation temperature from 59°F to 70°F. Since the liquid temperature must be maintained above the saturation temperature to prevent precipitation (crystallization) of Sodium Pentaborate, the licensee proposes to maintain the liquid at 90°F (10°F above the present 80°F) to maintain the margin above the saturation temperature, and will provide an alarm in the main control room to warn the operators if the liquid temperature drops below 90°F.

2.0 EVALUATION

In order to change the TS maximum allowable sodium pentaborate solution concentration for the SLCS from 13.8 weight percent to 15.8 weight percent to increase the band of design margin for the SLCS concentration, the licensee proposed to raise the piping heat trace setting from 80°F to 90°F. This will account for the increase in saturation temperature of the solution from 59°F at a concentration of 13.8 percent (current value) to 70°F at a concentration of 15.8 percent while maintaining a margin of at least 10°F. The margin is reflected in the solution temperature versus concentration curve. The licensee has also stated in a telecon that a heat trace trouble alarm is located in the main control room to alert operators to low temperature conditions which could lead to precipitation of the poison. The staff finds that the proposed change is consistent with the guideline given in the staff's standard review plan, and is, therefore, acceptable.

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3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change 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 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (52 FR 18984) on May 20, 1987 and consulted with the State of Pennsylvania. No public comments were received, and the State 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 this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: U. Cheh

Dated: August 25, 1987



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