

August 25, 1987

Docket Nos. 50-387/388

Mr. Harold W. Keiser
Vice President
Nuclear Operations
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

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CCowgill

Dear Mr. Keiser:

SUBJECT: CHANGES TO TECHNICAL SPECIFICATIONS TO INCREASE MAXIMUM CONCENTRATION
OF SODIUM PENTABORATE (TAC NOS. 65157 AND 65158)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

The Commission has issued the enclosed Amendment No. 69 to Facility Operating License No. NPF-14 and Amendment No. 38 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. These amendments are in response to your letter dated April 8, 1987.

These amendments revise the SSES Unit 1 and Unit 2 Technical Specifications with regard to Sodium Pentaborate concentration in the Standby Liquid Control system.

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/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 69 to License No. NPF-14
2. Amendment No. 38 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

8709030061 870825
PDR ADOCK 05000387
PDR

PDI-2/D
WButler
8/18/87

PDI-2/PM
MThadani:ca
8/18/87

PDI-2/D
WButler
8/24/87

OGC
8/19/87



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

August 25, 1987

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Vice President
Nuclear Operations
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

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Sincerely,

A handwritten signature in cursive script, reading "Walter R. Butler".

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

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1. Amendment No. 69 to
License No. NPF-14
2. Amendment No. 38 to
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3. Safety Evaluation

cc w/enclosures:
See next page

Mr. Harold W. Keiser
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station
Units 1 & 2

cc:

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Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

3. This license amendment is effective upon startup for Cycle 4 operation.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 25, 1987

PDI-2/D
MButler
8/18/87

PDI-2/PM
MThadani:ca
8/18/87

8/18/87

PDI-2/D
WButler
8/24/87

WB



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. 69
License No. NPF-14

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 April 8, 1987, 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-14 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. 69 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 upon startup for Cycle 4 operation.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 25, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

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 areas of change. The overleaf page is provided to maintain document completeness.*

REMOVE

3/4 1-21*
3/4 1-22

INSERT

3/4 1-21*
3/4 1-22

SUSQUEHANNA - UNIT 1

3/4 1-21

Temperature, °F

140
130
120
110
100
90
80
70
60
50
40

5

10

15

20

25

30

35

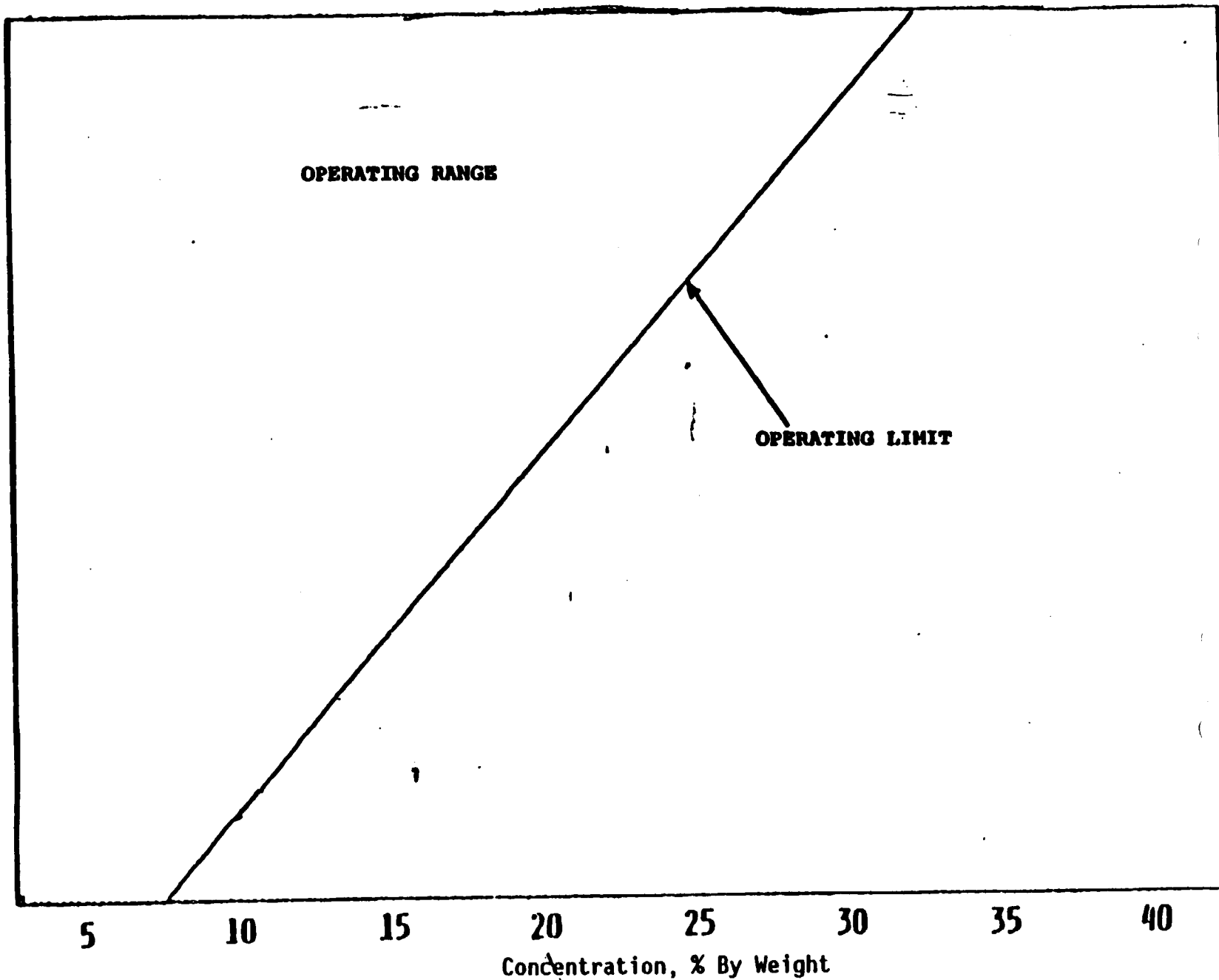
40

OPERATING RANGE

OPERATING LIMIT

SODIUM PENTABORATE SOLUTION
TEMPERATURE/CONCENTRATION REQUIREMENTS

Figure 3.1.5-1



3. This license amendment is effective upon startup for Cycle 4 operation of Unit 1.

FOR THE NUCLEAR REGULATORY COMMISSION


/s/


Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

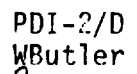
Attachment:
Charges to the Technical
Specifications

Date of Issuance: August 25, 1987


P. J. Pien
8/18/87


PDI-2/PM
MThadani:ca
8/18/87


JGC
8/19/87


PDI-2/D
WButler
8/24/87

B



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

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. 38
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 April 8, 1987, 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. 38 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 upon startup for Cycle 4 operation of Unit 1.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 25, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 38

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

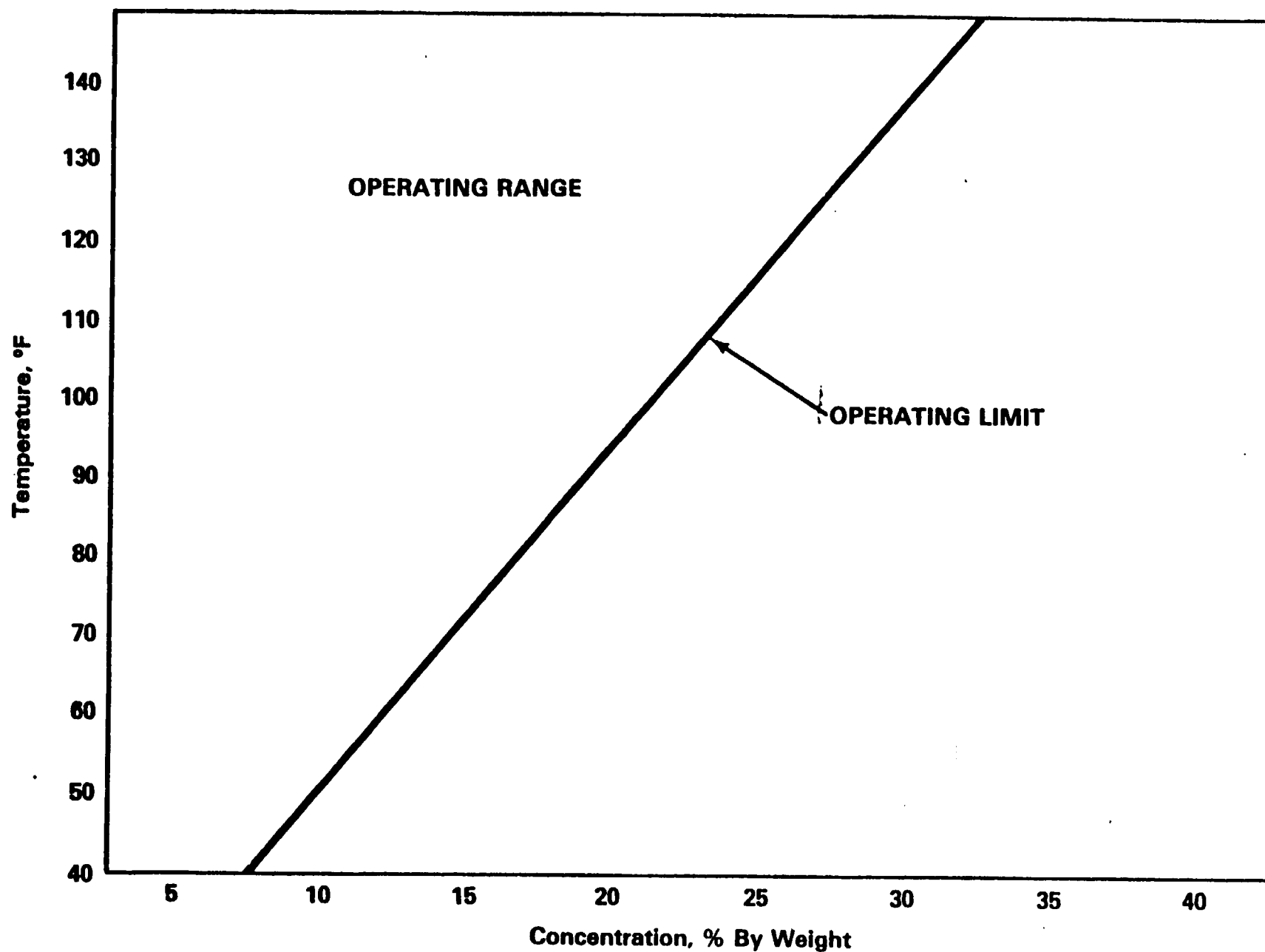
Replace the following page of the Appendix A Technical Specifications with enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change. The overleaf page is provided to maintain document completeness.*

REMOVE

3/4 1-21*
3/4 1-22

INSERT

3/4 1-21*
3/4 1-22



SODIUM PENTABORATE SOLUTION
TEMPERATURE/CONCENTRATION REQUIREMENTS

FIGURE 3.1.5-1



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.

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