

February 28, 1989

Docket No. 50-387

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

Dear Mr. Keiser:

SUBJECT: TECHNICAL SPECIFICATION CHANGES TO REFLECT REVISED 250 V DC BATTERY
PROFILES (TAC NO. 66920)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Commission has issued the enclosed Amendment No. 86 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station (SSES), Unit 1. This amendment is in response to your letter dated December 15, 1987.

This amendment changes the SSES, Unit 1 Technical Specifications reflecting the revised load profiles for 250 V dc battery banks 1D650 and 1D660.

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
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 86 to License No. NPF-14
2. Safety Evaluation

cc w/enclosures:
See next page

[Signature]
MO'Brien
2/1/89

[Signature]
PDI-2/PM
MThadani:tr
10/27/88

[Signature]
SELB/BC
FRosa
2/2/89

[Signature]
PDI-2/D
WButler
2/23/89

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DEC
R Bachmann
2/16/89

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

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

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

Enclosures:

1. Amendment No. 86 to
License No. NPF-14
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Harold W. Keiser
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station
Units 1 & 2

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King of Prussia, Pennsylvania 19406



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. 86
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 December 15, 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. 86 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.

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P PDC

3. This license amendment is effective as of its date of issuance.

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: February 28, 1989

REVISED
NOV 1989
2/28/89

ML
PDI-2/PM
MThadani:tr
10/27/88

ESB
OGC
R Bachmann
2/16/89

PDI-2/D
WRutler
2/23/89 *WB*

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 28, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 86

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

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

REMOVE

3/4 8-13
3/4 8-14

INSERT

3/4 8-13
3/4 8-14*

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 5) Channel "A" battery 2D612:
338 amperes for 60 seconds
112 amperes for the remainder of the 4 hour test.
 - 6) Channel "B" battery 2D622:
346 amperes for 60 seconds
121 amperes for the remainder of the 4 hour test.
 - 7) Channel "C" battery 2D632:
326 amperes for 60 seconds
107 amperes for the remainder of the 4 hour test.
 - 8) Channel "D" battery 2D642:
326 amperes for 60 seconds
107 amperes for the remainder of the 4 hour test.
 - 9) Channel "H" battery 0D595:
286 amperes for the first 60 seconds
95 amperes for the next 238 minutes
155 amperes for the last minute of the 4 hour test.
- c) For 250-volt batteries:
- 1) Battery bank 1D650:
1120 amperes for 60.0 seconds
599 amperes for 29.0 minutes
99 amperes for 120.0 minutes
27 amperes for 90.0 minutes
 - 2) Battery bank 1D660:
887 amperes for 60.0 seconds
396 amperes for 9.0 minutes
366 amperes for 20.0 minutes
325 amperes for 90.0 minutes
187 amperes for 119.0 minutes
229 amperes for 60.0 seconds
- e. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test.
- f. Annual performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

TABLE 4.8.2.1-1
BATTERY SURVEILLANCE REQUIREMENTS

Parameter	CATEGORY A ⁽¹⁾	CATEGORY B ⁽²⁾	
	Limits for each designated pilot cell	Limits for each connected cell	Allowable ⁽³⁾ value for each connected cell
Electrolyte Level	>Minimum level indication mark, and $\leq \frac{1}{4}$ " above maximum level indication mark	>Minimum level indication mark, and $\leq \frac{1}{4}$ " above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	> 2.13 volts	≥ 2.13 volts ^(c)	> 2.07 volts
Specific Gravity ^(a)	≥ 1.200 ^(b)	≥ 1.195 ^(b) Average of all connected cells > 1.205 ^(b)	Not more than .020 below the average of all connected cells Average of all connected cells ≥ 1.195 ^(b)

(a) Corrected for electrolyte temperature and level.

(b) Or battery charging current is less than 0.01, 0.1 and 0.25 amperes for the ± 24 , 125 and 250 volt batteries, respectively, when on float charge.

(c) May be corrected for average electrolyte temperature.

(1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 6 days.

(2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.

(3) Any Category B parameter not within its allowable value indicates an inoperable battery.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 86 TO FACILITY OPERATING LICENSE NO. NPF-14

PENNSYLVANIA POWER & LIGHT COMPANY
ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

1.0 INTRODUCTION

By letter dated December 15, 1987, Pennsylvania Power & Light Company (the licensee) requested an amendment to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station (SSES), Unit 1. The proposed amendment would revise the Technical Specifications for 250 V dc battery profiles to reflect the current load configuration determined by the licensee as a result of revised calculations. In response to the staff questions, the licensee provided clarification of the load profiles used for testing. The licensee's clarifications were documented in a letter dated January 23, 1989.

2.0 EVALUATION

The SSES, Unit 1 250 V dc batteries' dummy loads are adjusted to envelope the duty cycle of the current load configuration as calculated by the licensee. Since the Technical Specifications will continue to require that the dummy load profiles exceed the duty cycle of actual emergency loads, the proposed adjustments will have no significant safety impact and merely reflect an adjustment of loads to correspond to changed conditions. As indicated in the December 15, 1987 submittal, the licensee has successfully tested the 250 V dc batteries to the revised load profiles. Therefore, based on the relatively small changes in dummy loads and the fact that the new load profiles were successfully tested, the staff concludes that the emergency loads requirements will continue to be met and the proposed changes have no significant safety impact. The changes proposed to 250 V dc battery profiles are 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 and changes to the surveillance requirements. 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 (53 FR 30140) on August 10, 1988 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: Mohan C. Thadani

Dated: February 28, 1989