

December 12, 1983

Docket No.: 50-387

Mr. Norman W. Curtis
Vice President
Engineering and Construction - Nuclear
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Dear Mr. Curtis:

Subject: Amendment No. 19 to Facility Operating License No. NPF-14 -
Susquehanna Steam Electric Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 19 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letter dated October 20, 1983, as amended by your letter dated November 7, 1983. This amendment changes Technical Specification Table 4.8.1.1.2-2 to modify the start time sequence of two Emergency Service Water (ESW) pumps from 53 and 57 seconds to 44 and 48 seconds, respectively, to support two unit operation and prevent the potential concurrent starts of the Residual Heat Removal or Core Spray pumps with the ESW pumps.

A copy of the related safety evaluation supporting Amendment No. 19 to Facility Operating License NPF-14 is enclosed.

Sincerely,

Original signed by

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Enclosures:

- 1. Amendment No. 19 to NPF-14
- 2. Safety Evaluation

cc w/ enclosures:
See next page

DL:LB#2/PM
RLPerch:pt
12/2/83

DL:LB#2/LA
EGH:ton
12/2/83

DL:LB#2/BC
ASchwencer
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Mellinger
12/8/83

DL:AD/L
TMNovak
12/12/83

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P PDR

Susquehanna

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Susquehanna

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U. S. Environmental Protection Agency
Attn: EIS Coordinator
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Curtis Building
6th and Walnut Streets
Philadelphia, Pennsylvania 19106



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

PENNSYLVANIA POWER AND LIGHT COMPANY
ALLEGHENY ELECTRIC COOPERATIVE, INC.
DOCKET NO. 50-387
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 19
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for amendment filed by the Pennsylvania Power and Light Company, dated October 20, 1983, as amended by PP&L letter dated November 7, 1983, 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;
 - 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. 19, 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 amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 12, 1983

RR
DL:LB#2/PM
RLPerch:pt
12/2/83

EG
DL:LB#2/LA
EGM:ton
12/2/83

AS
DL:LB#2/BC
ASchwencer
12/2/83

MW
OELD
ME Wagner
12/8/83

TN
DL:AD/L
TN Novak
12/2/83

ATTACHMENT TO LICENSE AMENDMENT NO. 19
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 pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE

3/4 8-7
3/4 8-8

INSERT

3/4 8-7
3/4 8-8

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

<u>Number of Failures in Last 100 Valid Tests*</u>	<u>Test Frequency</u>
≤ 1	At least once per 31 days
2	At least once per 14 days
3	At least once per 7 days
≥ 4	At least once per 3 days

*Criteria for determining number of failures and number of valid tests shall be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1, August 1977, where the last 100 tests are determined on a per nuclear unit basis. For the purposes of this test schedule, only valid tests conducted after the OL issuance date shall be included in the computation of the "last 100 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

TABLE 4.8.1.1.2-2
UNIT 1 AND COMMON
DIESEL GENERATOR LOADING TIMERS

<u>DEVICE TAG NO.</u>	<u>SYSTEM</u>	<u>LOCATION</u>	<u>TIME SETTING</u>	
K116A	CS pp 1A	1C626	10.5 sec	
K116B	CS pp 1B	1C627	10.5 sec	
K125A	CS pp 1C	1C626	10.5 sec	
K125B	CS pp 1D	1C627	10.5 sec	
62X-20104	Emerg Switchgear Rm cooler A & RHR SN pp H&V fan A	0C877A	60 sec	
62X-20204	Emerg Switchgear Rm cooler B & RHR SN pp H&V fan B	0C877B	60 sec	
62X1-20304	Control Structure Chillwater System	0C877A	3 min	
62X1-20404	Control Structure Chillwater System	0C877B	3 min	
62X2-20304	Control Structure Chillwater System	0C877A	3.5 min	
62X2-20404	Control Structure Chillwater System	0C877B	3.5 min	
62X3-20304	Control Structure Chillwater System	0C877A	60 sec	
62X3-20404	Control Structure Chillwater System	0C877E	60 sec	
62X2-20310	Control Structure Chillwater System	0C876A	3 min	16
62X2-20410	Control Structure Chillwater System	0C876B	3 min	16
62AX2-20108	Emerg SW	1A201	40 sec	3
62AX2-20208	Emerg SW	1A202	40 sec	
62AX2-20303	Emerg SW	1A203	44 sec	
62AX2-20403	Emerg SW	1A204	48 sec	
62X-516	DG Rm Exh Fan A	0B516	2 min	
62X-526	DG Rm Exh Fan B	0B526	2 min	
62X-536	DG Rm Exh Fan C	0B536	2 min	
62X-546	DG Rm Exh Fan D	0B546	2 min	
62A-20102	RHR Pump 1A	1A201	3 sec	
62A-20202	RHR Pump 1B	1A202	3 sec	
62A-20302	RHR Pump 1C	1A203	3 sec	
62A-20402	RHR Pump 1D	1A204	3 sec	



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

SAFETY EVALUATION
AMENDMENT NO. 19 TO NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-387

Introduction

The licensee in a letter dated October 20, 1983, as amended by licensee letter dated November 7, 1983, proposed changes to Technical Specification Table 4.8.1.1.2-2 of the operating license for Susquehanna Steam Electric Station, Unit 1 to modify the start time sequence of two Emergency Service Water (ESW) pumps from 53 and 57 seconds to 44 and 48 seconds, respectively. The change is proposed to support two unit operation and prevent the potential concurrent starts of the Residual Heat Removal (RHR) or Core Spray (CS) pumps with the ESW pumps due to incorporation of the low vessel pressure interlocks required on the RHR and CS pump initiation signals in order to prevent a LOCA - false LOCA condition during two unit operation.

Evaluation

The ESW pump auto start timer is initiated from the diesel-generator start signal. The diesel generators are started by low reactor water level or high drywell pressure or a loss of offsite power. The RHR and CS pumps are initiated by either low reactor water level or both high drywell pressure and low vessel pressure to distinguish the LOCA in one unit from the false LOCA in the other unit for two-unit operation. Coincident starts of the RHR or CS pumps with the ESW pumps would result in unacceptable low voltages during the motor starts and unacceptable motor start times. For the Unit 1 operating license, the deletion of the low vessel pressure interlock from RHR or CS pump start logic was approved to prevent the concurrent start of the RHR or CS pumps with the ESW pumps for single unit operation.

The licensee has proposed to reinstate the low vessel pressure interlocks on RHR and CS pump initiation signals for two unit operation in order to prevent a LOCA - false LOCA condition. The staff has reviewed the offsite power supply capability to power the RHR and CS pump start concurrent with the ESW pump start. The offsite power supply systems have been modified by the installation of two additional ESF transformers. The licensee has re-evaluated the two-unit offsite power supply voltage study. The study demonstrates that the two-unit offsite power supply and the diesel generators are capable of supplying adequate power to the loads required for two unit operation and will not be adversely affected by the proposed change.

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Comments on the proposed change were received from Mr. Marvin Lewis by telephone on November 18, 1983. Mr. Lewis was concerned there was no indication of any testing to be accomplished to verify that the change in ESW pump load sequence timers was conducted properly. The licensee is required by Technical Specification 4.0.4 to ensure that entry into an OPERATIONAL CONDITION or other specified applicable condition shall not be made unless the Surveillance Requirements associated with the Limiting Condition for Operation have been performed within the applicable surveillance interval or as otherwise specified. The intent of this provision is to ensure that surveillance activities have been satisfactorily demonstrated on a current basis as required to meet the OPERABILITY requirements of the Limiting Condition for Operation. Under Technical Specification 4.0.4, testing of the modified timer settings is required to meet OPERABILITY requirements. Additionally, the setting of these timers is verified during the conduct of preoperational testing as part of the Unit 1/Unit 2 tie-in outage. The NRC staff believes that this adequately responds to Mr. Lewis's concern about testing.

The second concern of Mr. Lewis dealt with whether the timer settings could be maintained within its proper setpoint range given the plant environment, maintenance level, etc. Under the provisions of Technical Specification 4.8.1.1.2.d.14, verification of each diesel generator loading sequence timer listed in Table 4.8.1.1.2-2 to be OPERABLE with its setpoint within $\pm 10\%$ of its design setpoint, is required at least once per 18 months. Since the issuance of the Unit 1 license in July 1982, the licensee has not reported any diesel generator loading sequence timer outside the $\pm 10\%$ of its design setpoint. Thus, the staff concludes that there is adequate assurance that the timer settings can be maintained within their proper setpoint range.

The third concern expressed by Mr. Lewis was whether the change in ESW pump load sequence timers had an adverse effect on the ESW pump suction head. The ESW pumps take a suction directly from the spray pond. Therefore, the ESW pump suction head is strictly a function of spray pond level, not the load sequence timer setting, and the change in ESW load sequence timers will have no effect on the ESW pump suction head.

The NRC staff has reviewed the licensee's proposed change and the comments received, and concludes that the proposed change involves no significant hazards considerations. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated because the two unit diesel generator load sequence study and the two unit offsite power supply voltage study are not significantly affected by the proposed change. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed change remains bounded by the constraints of previous design and safety analyses. The proposed change does not involve a significant reduction in a margin of safety because the two unit diesel generator load sequence study and the two unit offsite power supply voltage study are not significantly affected by the change, and no other margin of safety as defined in the basis for any other Technical Specification, is significantly affected by the proposed change. The NRC staff finds the proposed change acceptable.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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 or to the health and safety of the public.

Dated: December 12, 1983

*SEE PREVIOUS CONCURRENCES

DL:LB#2/PM*
RLPerch:pt
12/2/83

DL:LB#2/BC*
ASchwencer
12/2/83

WLL
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DATED: December 12, 1983

AMENDMENT NO. 19 - SUSQUEHANNA

Document Control (50-387)

NRC PDR

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LB#2 File

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