



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

APR 23 1985

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. 41 TO FACILITY OPERATING LICENSE NO. NPF-14 -
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 41 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letter dated November 13, 1984. This amendment reflects the TS changes necessary to support modifications required to comply with License Condition 2.C.(17)(b)(2).

The staff has found one of your requested changes, however, to be unacceptable. Specifically, your proposed quarterly surveillance interval for the channel functional test for the SDV float switches has been denied.

A copy of the related safety evaluation supporting Amendment No. 41 to Facility Operating License NPF-14 is enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

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

Enclosures:

1. Amendment No. 41 to NPF-14
2. Safety Evaluation

cc w/Enclosures:
See next page

8504300010 850423
PDR ADOCK 05000387
P PDR

Susquehanna

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

Jay Silberg, Esq.
Shaw, Pittman, Potts, & Trowbridge
1800 M Street, N. W.
Washington, D.C. 20036

Edward M. Nagel, Esq.
General Counsel and Secretary
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Mr. William E. Barberich
Manager-Nuclear Licensing
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Mr. R. Jacobs
Resident Inspector
P.O. Box 52
Shickshinny, Pennsylvania 18655

Mr. E. B. Poser
Project Engineer
Bechtel Power Corporation
P. O. Box 3965
San Francisco, California 94119

Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection Resources
Commonwealth of Pennsylvania
P. O. Box 2063
Harrisburg, Pennsylvania 17120

Mr. N. D. Weiss, Project Manager
Maile Code 391
General Electric Company
175 Curtner Avenue
San Jose, California 95125

Robert W. Alder, Esquire
Office of Attorney General
P.O. Box 2357
Harrisburg, Pennsylvania 17120

Mr. William Matson
Allegheny Elec. Cooperative, Inc.
212 Locust Street
P. O. Box 1266
Harrisburg, PA 17108-1266

Mr. Anthony J. Pietrofitta,
General Manager
Power Production Engineering
and Construction
Atlantic Electric
1199 Black Horse Pike
Pleasantville, NJ 08232

Susquehanna

cc: Governor's Office of State Planning & Development
Attn: Coordinator, State Clearinghouse
P O. Box 1323
Harrisburg, Pennsylvania 17120

Mr. Bruce Thomas, President
Board of Supervisors
R. D. #1
Berwick, Pennsylvania 18603

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

DISTRIBUTION

Docket File
NRC PDR
Local PDR
PRC System
NSIC
LB#2 Reading
EHylton
MCampagnone
TNovak
JSaltzman, SAB
Goldberg, OELD
CMiles
HDenton
JRutberg
AToalston
WMiller, LFMB
JPartlow
BGrimes
EJordan
LHarmon
TBarnhart(4)



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. 41
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for an amendment filed by the Pennsylvania Power & Light Company, dated November 13, 1984 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 a 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 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. 41, 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.

B504300013 B50423
PDR ADOCK 05000387
P PDR

This amendment is effective upon start-up following the first refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Enclosure:
Changes to the Technical
Specifications

Date of Issuance: APR 23 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 41
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

2-3
2-4

3/4 3-3
3/4 3-4

3/4 3-5
3/4 3-6

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

3/4 3-51
3/4 3-52

3/4 8-33
3/4 8-34

INSERT

2-3
2-4

3/4 3-3
3/4 3-4

3/4 3-5
3/4 3-6

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

3/4 3-51
3/4 3-52

3/4 8-33
3/4 8-34

SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.2 LIMITING SAFETY SYSTEM SETTINGS

REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

2.2.1 The reactor protection system instrumentation setpoints shall be set consistent with the Trip Setpoint values shown in Table 2.2.1-1.

APPLICABILITY: As shown in Table 3.3.1-1.

ACTION:

With a reactor protection system instrumentation setpoint less conservative than the value shown in the Allowable Values column of Table 2.2.1-1, declare the channel inoperable and apply the applicable ACTION statement requirement of Specification 3.3.1 until the channel is restored to OPERABLE status with its setpoint adjusted consistent with the Trip Setpoint value.

TABLE 2.2.1-1
REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
1. Intermediate Range Monitor, Neutron Flux-High	$\leq 120/125$ divisions of full scale	$\leq 122/125$ divisions of full scale
2. Average Power Range Monitor:		
a. Neutron Flux-Upscale, Setdown	$\leq 15\%$ of RATED THERMAL POWER	$< 20\%$ of RATED THERMAL POWER
b. Flow Biased Simulated Thermal Power-Upscale		
1) Flow Biased	≤ 0.58 W+59%, with a maximum of $< 113.5\%$ of RATED THERMAL POWER	≤ 0.58 W+62%, with a maximum of $< 115.5\%$ of RATED THERMAL POWER
2) High Flow Clamped		
c. Neutron Flux-Upscale	$\leq 118\%$ of RATED THERMAL POWER	$< 120\%$ of RATED THERMAL POWER
d. Inoperative	NA	NA
3. Reactor Vessel Steam Dome Pressure - High	≤ 1037 psig	≤ 1057 psig
4. Reactor Vessel Water Level - Low, Level 3	> 13.0 inches above Instrument zero*	> 11.5 inches above Instrument zero
5. Main Steam Line Isolation Valve - Closure	$\leq 10\%$ closed	$\leq 11\%$ closed
6. Main Steam Line Radiation - High	< 3.0 x full power Background	< 3.6 x full power Background
7. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig
8. Scram Discharge Volume Water Level - High		
a. Level Transmitter	< 88 gallons	< 88 gallons
b. Float Switch	≤ 88 gallons	≤ 88 gallons
9. Turbine Stop Valve - Closure	$\leq 5.5\%$ closed	$\leq 7\%$ closed
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≥ 500 psig	≥ 460 psig
11. Reactor Mode Switch Shutdown Position	NA	NA
12. Manual Scram	NA	NA

*See Bases Figure B 3/4 3-1.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
7. Drywell Pressure - High	1, 2 ^(h)	2	1
8. Scram Discharge Volume Water Level - High			
a. Level Transmitter	1, 2 ⁽ⁱ⁾ 5	2 2	1 3
b. Float Switch	1, 2 ⁽ⁱ⁾ 5	2 2	1 3
9. Turbine Stop Valve - Closure	1 ^(j)	4 ^(k)	6
10. Turbine Control Valve Fast Closure, Valve Trip System Oil Pressure - Low	1 ^(j)	2 ^(k)	6
11. Reactor Mode Switch Shutdown Position	1, 2 3, 4 5	1 1 1	1 7 3
12. Manual Scram	1, 2 3, 4 5	2 2 2	1 8 9

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

| 29

ACTION STATEMENTS

- ACTION 1 - Be in at least HOT SHUTDOWN within 12 hours.
- ACTION 2 - Verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within 1 hour. | 29
- ACTION 3 - Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within 1 hour. | 29
- ACTION 4 - Be in at least STARTUP within 6 hours.
- ACTION 5 - Be in STARTUP with the main steam line isolation valves closed within 6 hours or in at least HOT SHUTDOWN within 12 hours.
- ACTION 6 - Initiate a reduction in THERMAL POWER within 15 minutes and reduce turbine first stage pressure until the function is automatically bypassed within 2 hours.
- ACTION 7 - Verify all insertable control rods to be inserted within 1 hour. | 29
- ACTION 8 - Lock the reactor mode switch in the Shutdown position within 1 hour. | 29
- ACTION 9 - Suspend all operations involving CORE ALTERATIONS, and insert all insertable control rods and lock the reactor mode switch in the SHUTDOWN position within 1 hour. | 29

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATIONS

- (a) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter.
- (b) This function is automatically bypassed when the reactor mode switch is in the Run position.
- (c) The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn* and shutdown margin demonstrations performed per Specification 3.10.3.
- (d) The non-coincident NMS reactor trip function logic is such that all channels go to both trip systems. Therefore, when the "shorting links" are removed, the Minimum OPERABLE Channels Per Trip System is 4 APRMS and 6 IRMS.
- (e) An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.
- (f) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (g) This function is automatically bypassed when the reactor mode switch is not in the Run position.
- (h) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
- (i) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (j) This function shall be automatically bypassed when turbine first stage pressure is less than 108 psig or 17% of the value of first stage pressure in psia at valves wide open (V.W.O) steam flow, equivalent to THERMAL POWER of about 24% of RATED THERMAL POWER.
- (k) Also actuates the EOC-RPT system.

*Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

TABLE 3.3.1-2

REACTOR PROTECTION SYSTEM RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME (Seconds)</u>
1. Intermediate Range Monitors:	
a. Neutron Flux - High	NA
b. Inoperative	NA
2. Average Power Range Monitor*:	
a. Neutron Flux - Upscale, Setdown	NA
b. Flow Biased Simulated Thermal Power - Upscale	< 0.09**
c. Fixed Neutron Flux - Upscale	< 0.09
d. Inoperative	NA
3. Reactor Vessel Steam Dome Pressure - High	< 0.55
4. Reactor Vessel Water Level - Low, Level 3	< 1.05
5. Main Steam Line Isolation Valve - Closure	< 0.06
6. Main Steam Line Radiation - High	NA
7. Drywell Pressure - High	NA
8. Scram Discharge Volume Water Level - High	
a. Level Transmitter	NA
b. Float Switch	NA
9. Turbine Stop Valve - Closure	< 0.06
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	< 0.08#
11. Reactor Mode Switch Shutdown Position	NA
12. Manual Scram	NA

*Neutron detectors are exempt from response time testing. Response time shall be measured from the detector output or from the input of the first electronic component in the channel.

**Not including simulated thermal power time constant.

#Measured from actuation of fast-acting solenoid.

TABLE 4.3.1.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> ^(a)	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
1. Intermediate Range Monitors:				
a. Neutron Flux - High	S/U,S, ^(b) S	S/U ^(c) , W W	SA SA	2 3, 4, 5
b. Inoperative	NA	S/U ^(c) , W	NA	2, 3, 4, 5
2. Average Power Range Monitor ^(f) :				
a. Neutron Flux - Upscale, Setdown	S/U,S, ^(b) S	S/U ^(c) , W W	SA SA	2 3, 5
b. Flow Biased Simulated Thermal Power - Upscale	S, D ^(g)	S/U ^(c) , W	W ^{(d)(e)} , SA, R ^(h)	1
c. Fixed Neutron Flux - Upscale	S	S/U ^(c) , W	W ^(d) , SA	1
d. Inoperative	NA	S/U ^(c) W	NA	1, 2, 3, 5
3. Reactor Vessel Steam Dome Pressure - High	NA	M	Q	1, 2
4. Reactor Vessel Water Level - Low, Level 3	S	M	R	1, 2
5. Main Steam Line Isolation Valve - Closure	NA	M	R	1
6. Main Steam Line Radiation - High	S	M	R	1, 2 ⁽ⁱ⁾
7. Drywell Pressure - High	NA	M	R	1, 2

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
8. Scram Discharge Volume Water Level - High				
a. Level Transmitter	NA	M	R	1, 2, 5(j)
b. Float Switch	NA	M	R	1, 2, 5(j)
9. Turbine Stop Valve - Closure	NA	M	R	1
10. Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low	NA	M	R	1
11. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
12. Manual Scram	NA	M	NA	1, 2, 3, 4, 5

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) The IRM and SRM channels shall be determined to overlap for at least 0.5 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 0.5 decades during each controlled shutdown, if not performed within the previous 7 days.
- (c) Within 24 hours prior to startup, if not performed within the previous 7 days.
- (d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER > 25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER. Any APRM channel gain adjustment made in compliance with Specification 3.2.2 shall not be included in determining the absolute difference.
- (e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.
- (f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH) using the TIP system.
- (g) Verify measured core flow to be greater than or equal to established core flow at the existing loop flow.
- (h) This calibration shall consist of verifying the 6 ± 1 second simulated thermal power time constant.
- (i) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (j) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

INSTRUMENTATION

3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.6. The control rod block instrumentation channels shown in Table 3.3.6-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6-2.

APPLICABILITY: As shown in Table 3.3.6-1.

ACTION:

- a. With a control rod block instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.6-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, take the ACTION required by Table 3.3.6-1.

SURVEILLANCE REQUIREMENTS

4.3.6. Each of the above required control rod block trip systems and instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.6-1.

TABLE 3.3.6-1
CONTROL ROD BLOCK INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. <u>ROD BLOCK MONITOR</u> ^(a)			
a. Upscale	2	1*	60
b. Inoperative	2	1*	60
c. Downscale	2	1*	60
2. <u>APRM</u>			
a. Flow Biased Neutron Flux - Upscale	4	1	61
b. Inoperative	4	1, 2, 5	61
c. Downscale	4	1	61
d. Neutron Flux - Upscale, Startup	4	2, 5	61
3. <u>SOURCE RANGE MONITORS</u>			
a. Detector not full in ^(b)	3	2	61
	2	5	61
b. Upscale ^(c)	3	2	61
	2	5	61
c. Inoperative ^(c)	3	2	61
	2	5	61
d. Downscale ^(d)	3	2	61
	2	5	61
4. <u>INTERMEDIATE RANGE MONITORS</u>			
a. Detector not full in	6	2, 5	61
b. Upscale	6	2, 5	61
c. Inoperative ^(e)	6	2, 5	61
d. Downscale ^(e)	6	2, 5	61
5. <u>SCRAM DISCHARGE VOLUME</u>			
a. Water Level-High	2	1, 2, 5**	62
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>			
a. Upscale	2	1	62
b. Inoperative	2	1	62
c. Comparator	2	1	62

ELECTRICAL POWER SYSTEMS

REACTOR PROTECTION SYSTEM ELECTRIC POWER MONITORING

LIMITING CONDITION FOR-OPERATION

3.8.4.3 Two RPS electric power monitoring assemblies for each inservice RPS MG set or alternate power supply shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one RPS electric power monitoring assembly for an inservice RPS MG set or alternate power supply inoperable, restore the inoperable power monitoring assembly to OPERABLE status within 72 hours or remove the associated RPS MG set or alternate power supply from service.
- b. With both RPS electric power monitoring assemblies for an inservice RPS MG set or alternate power supply inoperable, restore at least one electric power monitoring assembly to OPERABLE status within 30 minutes or remove the associated RPS MG set or alternate power supply from service.

SURVEILLANCE REQUIREMENTS

4.8.4.3 The above specified RPS electric power monitoring assemblies shall be determined OPERABLE:

- a. By performance of a CHANNEL FUNCTIONAL TEST each time the plant is in COLD SHUTDOWN for a period of more than 24 hours, unless performed within the previous 6 months.
- b. At least once per 18 months by demonstrating the OPERABILITY of overvoltage, undervoltage and underfrequency protective instrumentation by performance of a CHANNEL CALIBRATION including simulated automatic actuation of the protective relays, tripping logic and output circuit breakers and verifying the following setpoints:

	<u>RPS Division A</u>	<u>RPS Division B</u>
1. Overvoltage	< 128.3 VAC	< 129.5 VAC
2. Undervoltage	≥ 110.7 VAC**	≥ 111.9 VAC**
3. Underfrequency	≥ 57 Hz	≥ 57 Hz

**Initial setpoint. Final setpoint to be determined during startup testing following the first refueling outage. Any required change to this setpoint shall be submitted to the Commission within 90 days of test completion.



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

SAFETY EVALUATION
AMENDMENT NO. 41 TO NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-387

Introduction

By letter dated November 13, 1984 the licensee requested changes to the TS to support the required modifications to comply with License Condition 2.C.(17)(b)(2) which reads as follows:

"Prior to startup following the first refueling outage, PP&L shall incorporate the following additional modifications into the scram discharge volume system:

- (2) Diverse and redundant SDV instrumentation for each instrumented volume, including both delta pressure sensors and float sensors."

Evaluation

This amendment was submitted as a result of modifications to the Scram Discharge Volume (SDV) and associated equipment, accomplished in order to comply with License Condition 2.C.(17)(b)(2) which was incorporated into the License as a result of Generic Letter No. 81-18 dated March 30, 1981, in which the staff requested all operating BWR licensees to provide diversity for the SDV level switches at their facilities. The NRC staff finds the proposed changes acceptable with the exception of one change. This change is on page 3/4 3-8 Table 4.3.1.1-1 "Reactor Protection System Instrumentation Surveillance Requirements."

The licensee has proposed a quarterly surveillance interval for the channel functional test for the SDV float switches. We find this proposed surveillance interval to be unacceptable for the reasons listed below.

The objective of this design modification is to provide reliable instrumentation which can accommodate a single random failure or potential common-cause failures for all postulated SDV filling events. It is extremely important that there be sufficient volume in the SDV for accepting a full reactor scram at all times. Investigations and tests performed by the BWR licensees have shown that crud buildup, human error, manufacturing defects, hydrodynamic forces (IE Bulletin 80-14 dated June 12, 1980) and environmental concerns such as those reported with the flooding and heating switches have led to past common-cause failures. These failure modes would become undetectable for a maximum period of 92 days (quarterly) based on the licensee's proposed surveillance interval instead of 31 days (monthly) based on the original SSES, Unit 1 TS.

In view of the above, the staff concludes it is not appropriate to change the channel functional test from a monthly to a quarterly surveillance interval, i.e., in a non-conservative direction. Therefore, the licensee should establish the monthly functional test interval for the float switches or provide adequate justification for the establishment of the quarterly functional test for Susquehanna, Unit 1.

The staff has determined that the remaining technical specification changes are consistent with the staff guidelines as stated in the December 1, 1980 BWR Scram Discharge System Safety Evaluation and in Generic Letter No. 81-18 dated March 30, 1981.

Environmental Consideration

This amendment involves a change in 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 or environmental assessment need be prepared in connection with the issuance of this amendment.

Conclusion

We have 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 or to the health and safety of the public.

Dated: APR 23 1985

Docket No. 50-387

APR 23 1985

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. 41 TO FACILITY OPERATING LICENSE NO. NPF-14 -
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 41 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letter dated November 13, 1984. This amendment reflects the TS changes necessary to support modifications required to comply with License Condition 2.C.(17)(b)(2).

The staff has found one of your requested changes, however, to be unacceptable. Specifically, your proposed quarterly surveillance interval for the channel functional test for the SDV float switches has been denied.

A copy of the related safety evaluation supporting Amendment No. 41 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. 41 to NPF-14
2. Safety Evaluation

cc w/Enclosures:
See next page

Distribution: See next page

*Previous concurrence concurred on by:

*LB#2/DL/LA	*LB#2/DL/PM	*OELD	*LB#2/DL/BC	*AD/L/DL
EHylton	MCampagnone:lb	JGoldberg	ASchwencer	TMNovak
04/04/85	04/03/85	04/05/85	04/04/85	04/12/85

4/23/85

850430010