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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. 16 to Facility Operating License No. NPF-14 -
Susquehanna Steam Electric Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 16 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letters dated January 31, 1983, and May 4, 1983. This amendment incorporates Revision 2 into the approved Susquehanna Steam Electric Station Fire Protection Review Report; corrects typographical errors in Technical Specification 4.11.2.1.2-1, Radioactive Gaseous Waste Sampling and Analysis Program, and in Section 8, Electrical Power Systems; corrects nomenclature in Table 4.8.1.1.2-2, Unit 1 and Common Diesel Generator Loading Timers; adds a footnote to Table 3.8.4.1-1; deletes a non-applicable requirement in Technical Specification 4.7.2.b.1; and changes the allowable value for the Reactor Vessel Level-High Feedwater/Main Turbine trip in Technical Specification Table 3.3.9.2.

A copy of the related safety evaluation supporting Amendment No. 16 to Facility Operating License NPF-14 is enclosed.

Sincerely,

Original signed by:

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

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Enclosures:

1. Amendment No.16 to NPF-14
2. Safety Evaluation

cc w/ enclosures:
See next page

Oh but see 9/20/83

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| OFFICE | DL:LB#2/PM | DL:LB#2/LA | DL:LB#2/BC | OELD ^{Man} | | | |
| SURNAME | RLPerch:pt | E Ston | ASchwencer | ME Wagner | | | |
| DATE | 9/1/83 | 9/17/83 | 9/21/83 | 9/20/83 | | | |

Susquehanna

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Susquehanna

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

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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

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. 16
 License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The applications for amendments filed by the Pennsylvania Power & Light Company, dated January 31, 1983, and May 4, 1983, comply 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 paragraphs 2.C.(2) and 2.C.(6) of the Facility Operating License No. NPF-14 are 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. 16, 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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(6) Fire Protection Program

PP&L shall maintain in effect and fully implement all provisions of the approved Fire Protection Review Report, as amended through Revision 2 dated November 1982. In addition, PP&L shall maintain the fire protection program set forth in Appendix R to 10 CFR Part 50.

3. This amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 28, 1983

| | | | | | | |
|---------|------------|------------|------------|-----------|---------|------------|
| OFFICE | DL:LB#2/PM | DL:LB#2/LA | DL:LB#2/BC | OELD | DL:AD | DL:DIR |
| SURNAME | RLPerch:pt | EGHyton | ASchwencer | ME Wagner | TNovak | DGEisenhut |
| DATE | 9/1/83 | 9/17/83 | 9/18/83 | 9/20/83 | 9/18/83 | 9/20/83 |

ATTACHMENT TO LICENSE AMENDMENT NO.
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.

| <u>REMOVE</u> | <u>INSERT</u> |
|---------------|---------------|
| 3/4 3-97 | 3/4 3-97 |
| 3/4 3-98 | 3/4 3-98 |
| 3/4 7-3 | 3/4 7-3 |
| 3/4 7-4 | 3/4 7-4 |
| 3/4 7-5 | 3/4 7-5 |
| 3/4 7-6 | 3/4 7-6 |
| 3/4 8-7 | 3/4 8-7 |
| 3/4 8-8 | 3/4 8-8 |
| 3/4 8-19 | 3/4 8-19 |
| 3/4 8-20 | 3/4 8-20 |
| 3/4 8-23 | 3/4 8-23 |
| 3/4 8-24 | 3/4 8-24 |
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| 3/4 8-26 | 3/4 8-26 |
| 3/4 8-27 | 3/4 8-27 |
| 3/4 8-28 | 3/4 8-28 |
| 3/4 8-31 | 3/4 8-31 |
| 3/4 8-32 | 3/4 8-32 |

TABLE 3.3.9-2

FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

| <u>FUNCTIONAL UNIT</u> | <u>TRIP SETPOINT</u> | <u>ALLOWABLE VALUE</u> |
|------------------------------------|----------------------|------------------------|
| a. Reactor Vessel Water Level-High | <u>≤</u> 54.0 inches | <u>≤</u> 55.5 inches |

TABLE 4.3.9.1-1 (Continued)

FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| <u>FUNCTIONAL UNIT</u> | <u>CHANNEL CHECK</u> | <u>CHANNEL FUNCTIONAL TEST</u> | <u>CHANNEL CALIBRATION</u> | <u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u> |
|------------------------------------|----------------------|--------------------------------|----------------------------|---|
| a. Reactor Vessel Water Level-High | D | M | R | 1 |

PLANT SYSTEMS

ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The spray pond shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, 5 and *.

ACTION:

- a. With the groundwater level at any spray pond area observation well greater than or equal to 663' MSL, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the high groundwater level and the plans for restoring the level to within the limit.
- b. With the spray pond otherwise inoperable:
 1. In OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
 2. In OPERATIONAL CONDITION 4 or 5, declare the RHRSW system and the emergency service water system inoperable and take the ACTION required by Specifications 3.7.1.1 and 3.7.1.2.
 3. In Operational Condition *, declare the emergency service water system inoperable and take the ACTION required by Specification 3.7.1.2. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The spray pond shall be determined OPERABLE by verifying:

- a. The average water temperature, which shall be the arithmetical average of the spray pond water temperature at the surface, mid and bottom levels, to be less than or equal to 88°F at least once per 24 hours.
- b. The water level at the overflow weir is greater than or equal to 677' mean Sea Level USGS (MSL), at least once per:
 1. 12 hours when water level is \leq 677'6" MSL, and
 2. 14 days when water level is $>$ 677'6" MSL.
- c. The groundwater level at observation wells 1, 3, 4, 5, 6, and 1113 to be less than 663' MSL at least once per 31 days.

*When handling irradiated fuel in the secondary containment.

PLANT SYSTEMS

3/4.7.2 CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent control room emergency outside air supply system subsystems shall be OPERABLE with each subsystem consisting of:

- a. One makeup fan, and
- b. One filter train.

APPLICABILITY: All OPERATIONAL CONDITIONS and *.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2 or 3 with one control room emergency outside air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4, 5 or *:
 1. With one control room emergency outside air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or initiate and maintain operation of the OPERABLE subsystem in the pressurization mode of operation.
 2. With both control room emergency outside air supply subsystems inoperable, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.
- c. The provisions of Specification 3.0.3 are not applicable in Operational Condition *.

SURVEILLANCE REQUIREMENTS

4.7.2 Each control room emergency outside air supply subsystem shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates for at least 10 hours with the heaters OPERABLE.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:

*When irradiated fuel is being handled in the secondary containment.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the subsystem satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 5810 cfm \pm 10%.
 2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
 3. Verifying a subsystem flow rate of 5810 cfm \pm 10% during subsystem operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- d. At least once per 18 months by:
1. Verifying that the pressure drop across the combined prefilter, upstream and downstream HEPA filters and charcoal adsorber banks is less than 9.1 inches Water Gauge while operating the subsystem at a flow rate of 5810 cfm \pm 10%.
 2. Verifying that on each of the below isolation mode actuation test signals, the subsystem automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds:
 - a) Outside air intake chlorine - high,
 - b) Outside air intake radiation - high, and
 - c) Reactor Building isolation.
 3. Verifying that on each of the below pressurization mode actuation test signals, the subsystem automatically switches to the pressurization mode of operation and the control structure is maintained at a positive pressure of 1/8 inch W.G. relative to the outside atmosphere during subsystem operation at a flow rate less than or equal to 5810 cfm:
 - a) Reactor Building isolation, and
 - b) Outside air intake radiation - high.
 4. Verifying that the heaters dissipate 30 ± 3.0 Kw when tested in accordance with ANSI N510-1975.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 5810 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 5810 cfm \pm 10%.

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 | 0C877B | 60 sec |
| 62X2-20310 | Control Structure Chillwater System | 0C876A | 3 min |
| 62X2-20410 | Control Structure Chillwater System | 0C876B | 3 min |
| 62AX2-20108 | Emerg SW | 1A201 | 40 sec |
| 62AX2-20208 | Emerg SW | 1A202 | 40 sec |
| 62AX2-20303 | Emerg SW | 1A203 | 53 sec |
| 62AX2-20403 | Emerg SW | 1A204 | 57 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 |

3

ELECTRICAL POWER SYSTEMS

DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following power distribution system divisions shall be energized:

a. For A.C. power distribution, Division I or Division II with:

1. Division I consisting of:

- a) Load group Channel "A", consisting of:
 - 1) 4160 volt A.C. switchgear bus 1A201
 - 2) 480 volt A.C. load center 1B210
 - 3) 480 volt A.C. motor control center 0B516
- b) Load group Channel "C", consisting of:
 - 1) 4160 volt A.C. switchgear bus 1A203
 - 2) 480 volt A.C. load center 1B230
 - 3) 480 volt A.C. motor control center 0B536
- c) Load group 480 volt A.C. motor control centers 0B517, 0B136
1B216, 1B236
1B217, 1B237
1B219
- d) Load group 208/120 volt A.C. instrument panels 1Y216, 1Y236

2. Division II consisting of:

- a) Load group Channel "B", consisting of:
 - 1) 4160 volt A.C. switchgear bus 1A202
 - 2) 480 volt A.C. load center 1B220
 - 3) 480 volt A.C. motor control center 0B526
- b) Load group Channel "D", consisting of:
 - 1) 4160 volt A.C. switchgear bus 1A204
 - 2) 480 volt A.C. load center 1B240
 - 3) 480 volt A.C. motor control center 0B546
- c) Load group 480 volt A.C. motor control centers 0B527, 0B146
1B226, 1B246
1B227, 1B247
1B229
- d) Load group 208/120 volt A.C. instrument panels 1Y226, 1Y246

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

b. For D.C. power distribution, Division I or Division 2, with:

I. Division I consisting of:

- a) Load group Channel "A", consisting of:
 - 1) 125 volt DC buses 1D612, 1D614
 - 2) Fuse box 1D611
- b) Load group Channel "C", consisting of:
 - 1) 125 volt DC buses 1D632, 1D634
 - 2) Fuse box 1D631
- c) Load group "I", consisting of:
 - 1) 250 volt DC buses 1D652, 1D254
 - 2) Fuse box 1D651
- d) Load group "I", consisting of:
 - 1) \pm 24 volt DC buses 1D672
 - 2) Fuse box 1D671

2. Division II consisting of:

- a) Load group Channel "B", consisting of:
 - 1) 125 volt DC buses 1D622, 1D624
 - 2) Fuse box 1D621
- b) Load group Channel "D", consisting of:
 - 1) 125 volt DC buses 1D642, 1D644
 - 2) Fuse box 1D641
- c) Load group "II", consisting of:
 - 1) 250 volt DC buses 1D662, 1D264, 1D274
 - 2) Fuse box 1D661
- d) Load group "II", consisting of:
 - 1) \pm 24 volt DC buses 1D682
 - 2) Fuse box 1D681

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

*When handling irradiated fuel in the secondary containment.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. By selecting and functionally testing a representative sample of each type of fuse on a rotating basis. Each representative sample of fuses shall include at least 10% of all fuses of that type. The functional test shall consist of a non-destructive resistance measurement test which demonstrates that the fuse meets its manufacturer's design criteria. Fuses found inoperable during these functional testing shall be replaced with OPERABLE fuses prior to resuming operation. For each fuse found inoperable during these functional tests, an additional representative sample of at least 10% of all fuses of that type shall be functionally tested until no more failures are found or all fuses of that type have been functionally tested.
- b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

TABLE 3.8.4.1-1

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

| <u>CIRCUIT BREAKER LOCATION</u> | <u>TYPE*</u> | <u>FRAME RATING/UL</u> | <u>TRIP SET POINT (Amperes)</u> | <u>RESPONSE TIME (Milli- seconds/ Cycles)</u> | <u>SYSTEMS OR EQUIPMENT POWERED</u> |
|---|--------------|----------------------------|---|---|---|
| a. <u>Type 2 Molded Case Circuit Breakers +</u> | | | | | |
| 1. 1B219022 | HFB-M | 150/30 | 270 | NA | HVB311F031A RRP "A" DSCH VLV |
| 2. 1B237043 | HFB-M | 150/30 | 270 | NA | HVB311F023A Recirc. PP "A" Suction |
| 3. 1B236052 | HFB-M | 150/30 | 215 | NA | HVE111F009 RHR Pump Suction Shutoff |
| 4. 1B236023 | HFB-M | 150/3 | 18 | NA | HV12603 Containment Inst. Compressor Suct. Iso. Valve |
| 5. 1B236011 | HFB-M | 150/30 | 250 | NA | 1V413A - Drywell Area Unit Cooler |
| 6. 1B236033 | HFB-M | 150/30 | 220 | NA | 1V414A - Drywell Area Unit Cooler |
| 7. 1B236021 | HFB-M | 150/30 | 175 | NA | 1V417A - Drywell Area Unit Cooler |
| 8. 1B236032 | HFB-M | 150/30 | 180 | NA | 1V412A - Drywell Area Unit Cooler |
| 9. 1B236042 | HFB-M | 150/30 | 150 | NA | 1V411A - Drywell Area Unit Cooler |
| 10. 1B236043 | HFB-M | 150/30 | 160 | NA | 1V416A - Drywell Area Unit Cooler |
| 11. 1B236082 | HFB-M | 150/30 | 150 | NA | 1V415A - Drywell Area Unit Cooler |
| 12. 1B236102 | HFB-M | 150/3 | 8 | NA | HVB211F001 - Reactor Head Vent Valve |
| 13. 1B236053 | HFB-M | 150/5 | 45 | NA | HVC331F001 - Reac. Wtr. Clean up inboard isolation |
| 14. 1B237072 | HFB-M | 150/5 | 25 | NA | HVB8211F016 - Main Stm. Line Drain Inbd. Iso. |

TABLE 3.8.4.1-1 (Continued)
PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

| <u>CIRCUIT BREAKER LOCATION</u> | <u>TYPE*</u> | <u>FRAME RATING/UL</u> | <u>TRIP SET POINT (Amperes)</u> | <u>RESPONSE TIME (Milli- seconds/ Cycles)</u> | <u>SYSTEMS OR EQUIPMENT POWERED</u> |
|--|--------------|----------------------------|---|---|--|
| <u>Type 2 Molded Case Circuit Breakers (Continued) +</u> | | | | | |
| 15. 1B219023 | HFB-M | 150/10 | 80 | NA | HVB311F032A - RRP "A" Dsch Byps Vlv |
| 16. 1B237073 | HFB-M | 150/10 | 60 | NA | HVE111F022 - Reac Heater Spray Shutoff Inboard |
| 17. 1B237082 | HFB-M | 150/10 | 70 | NA | HVE411F002 - HPCI Stm. Supply Inboard Iso. |
| 18. 1B246011 | HFB-M | 150/30 | 270 | NA | HVB311F023B - Reactor Recirc Pump Suction |
| 19. 1B229022 | HFB-M | 150/30 | 270 | NA | HVB311F031B - Reactor Recirc Pump Disch |
| 20. 1B246022 | HFB-M | 150/5 | 40 | NA | HVE511F007 - RCIC Inbrd Steam Line 150 |
| 21. 1B246051 | HFB-M | 150/30 | 170 | NA | 1V417B - Drywell Area Unit Clr Fan |
| 22. 1B246061 | HFB-M | 150/30 | 170 | NA | 1V414B - Drywell Area Unit Clr Fan |
| 23. 1B229023 | HFB-M | 150/10 | 70 | NA | HVB311F032B - RRP "B" Dsch Byps Vlv |
| 24. 1B246072 | HFB-M | 150/30 | 170 | NA | 1V415B - Drywell Area Unit Clr Fan |
| 25. 1B246081 | HFB-M | 150/30 | 170 | NA | 1V416B - Drywell Area Unit Clr. Fan |
| 26. 1B246091 | HFB-M | 150/30 | 160 | NA | 1V411B - Drywell Unit Clr. Fan |
| 27. 1B246102 | HFB-M | 150/30 | 215 | NA | 1V413B - Drywell Area Unit Clr. Fan |
| 28. 1B246103 | HFB-M | 150/30 | 170 | NA | 1V412B - Drywell Area Unit Clr. Fan |

TABLE 3.8.4.1-1 (Continued)
PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

| <u>CIRCUIT BREAKER LOCATION</u> | <u>TYPE*</u> | <u>FRAME RATING/UL</u> | <u>TRIP SET POINT (Amperes)</u> | <u>RESPONSE TIME (Milli-seconds/Cycles)</u> | <u>SYSTEMS OR EQUIPMENT POWERED</u> |
|--|--------------|------------------------|---------------------------------|---|---|
| <u>Type 2 Molded Case Circuit Breakers (Continued) +</u> | | | | | |
| 29. 1B246112 | HFB-M | 150/3 | 8 | NA | HVB211F002 - Reactor Head Vent Valve |
| 30. 1B246113 | HFB-M | 150/3 | 8 | NA | HVB211F005 - Reactor Heat Vent Valve |
| 31. 1B246062 | HFB-M | 150/3 | 20 | NA | HV11346 - RBCCW Containment Iso. Vlv. |
| 32. 1B246012 | HFB-M | 150/3 | 18 | NA | HV11345 - RBCCW Containment Iso. Vlv. |
| 33. 1B253063 | HFB-M | 150/5 | 18 | NA | 1P402A - Drywell Floor Draw Sump "A" PP "A" |
| 34. 1B253053 | HFB-M | 150/5 | 27 | NA | HVG331F102 - Line Suction Inside Control Valve |
| 35. 1B263043 | HFB-M | 150/3 | 10 | NA | HVG331F100 - RWCU Loop "1A" Suction |
| 36. 1B263053 | HFB-M | 150/3 | 12 | NA | HVG331F106 - RWCU Loop "B" Suction |
| 37. 1B263081 | HFB-M | 150/3 | 11 | NA | HVG331F101 - RWCU Sys Vessel Drain Line Recirc. |
| 38. 1B263071 | HFB-M | 150/5 | 20 | NA | 1P4023 - Drywell Floor Drain Sump "A" PP "B" |
| 39. 1B253043 | HFB-M | 150/5 | 20 | NA | 1P403A - Drywell Floor Drain Sump "B" Pump "A" |
| 40. 1B263072 | HFB-M | 150/5 | 20 | NA | 1P403B - Drywell Floor Drain Sump "B" PP "B" |
| 41. 1B253021 | HFB-M | 150/50 | 480 | NA | HVB211F011A Feedwater Inlet Shutoff Valve |
| 42. 1B263023 | HFB-M | 150/50 | 480 | NA | HVB211F011B - Feedwater Inlet Shutoff Valve |

*HFB-M - Westinghouse Type HFB, magnetic only

+Each location no. represents two breakers; A and B, in series.

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

| <u>CIRCUIT BREAKER</u> <u>LOCATION</u> | <u>TYPE**</u> | <u>FRAME</u> <u>RATING/UL</u> | <u>RESPONSE</u> <u>TIME</u> <u>(Milli-</u> <u>seconds/</u> <u>Cycles)</u> | <u>SYSTEMS OR</u> <u>EQUIPMENT POWERED</u> |
|---|---------------|----------------------------------|---|--|
| b. <u>Type 3 Molded Case</u> <u>Circuit Breakers</u> | | | | |
| 1. 1B236103 | KB-TM | 250/150 | NA | 1E440C - Containment Recomb Elect. Htr. Ass'y. |
| 2. 1B246033 | KB-TM | 250/150 | NA | 1E440D - Containment Recomb Elect. Htr. Ass'y. |
| 3. 1B226103 | KB-TM | 250/150 | NA | 1E440B - Containment Recomb Elect. Htr. Ass'y. |
| 4. 1B216092 | KB-TM | 250/150 | NA | 1E440A - Containment Recomb. Elect. Htr. Ass'y. |

**KB-TM - Westinghouse Type KB, Thermal-magnetic

ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

LIMITING CONDITION FOR OPERATION

3.8.4.2 The thermal overload protection of each valve shown in Table 3.8.4.2-1 shall be bypassed continuously by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE.

ACTION:

With thermal overload protection for one or more of the above required valves not bypassed continuously by an OPERABLE integral bypass device, take administrative action to continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

SURVEILLANCE REQUIREMENTS

4.8.4.2.1 The thermal overload protection for the above required valves shall be verified to be bypassed continuously by an OPERABLE integral bypass device by verifying that the thermal overload protection is bypassed for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing:

- a. At least once per 18 months for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing.
- b. Following maintenance on the motor starter.

4.8.4.2.2 The thermal overload protection for the above required valves which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing shall be verified to be bypassed following periodic or maintenance testing during which the thermal overload protection was temporarily placed in force.

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

| <u>VALVE NUMBER</u> | <u>SYSTEM(S) AFFECTED</u> |
|---------------------|-------------------------------|
| HV-E11-1F028B | RHR |
| HV-E11-1F047B | RHR |
| HV-E11-1F016B | RHR |
| HV-E11-1F003B | RHR |
| HV-E11-1F017B | RHR |
| HV-E21-1F031B | CS |
| HV-E21-1F001B | CS |
| HV-E11-1F103B | RHR |
| HV-E11-1F075B | RHRSW |
| HV-E11-1F073B | RHRSW |
| HV-E11-1F006D | RHR |
| HV-E11-1F004D | RHR |
| HV-E11-1F024B | RHR |
| HV-E21-1F015B | CS |
| HV-E21-1F004B | CS |
| HV-E21-1F005B | CS |
| HV-E32-1F001K | MSIV |
| HV-E32-1F002K | MSIV |
| HV-E32-1F003K | MSIV |
| HV-E32-1F001P | MSIV |
| HV-E32-1F002P | MSIV |
| HV-E32-1F003P | MSIV |
| HV-E32-1F001B | MSIV |
| HV-E32-1F002B | MSIV |
| HV-E32-1F003B | MSIV |
| HV-E32-1F001F | MSIV |
| HV-E32-1F002F | MSIV |
| HV-E32-1F003F | MSIV |
| HV-E32-1F006 | MSIV |
| HV-E32-1F007 | MSIV |
| HV-E32-1F008 | MSIV |
| HV-E32-1F009 | MSIV |
| HV-E51-1F045 | RCIC |
| HV-E51-1F012 | RCIC |
| HV-E51-1F013 | RCIC |
| HV-15012 | RCIC |
| HV-E51-1F046 | RCIC |
| HV-E51-1F008 | RCIC |
| HV-E51-1F031 | RCIC |
| HV-E51-1F010 | RCIC |

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

| <u>VALVE NUMBER</u> | <u>SYSTEM(S) AFFECTED</u> |
|---------------------|-------------------------------|
| HV-E51-1F019 | RCIC |
| HV-E51-1F060 | RCIC |
| HV-E51-1F059 | RCIC |
| HV-E51-1F022 | RCIC |
| HV-E51-1F062 | RCIC |
| HV-E41-1F012 | HPCI |
| HV-E41-1F001 | HPCI |
| HV-E41-1F011 | HPCI |
| HV-E41-1F006 | HPCI |
| HV-E41-1F079 | HPCI |
| HV-E41-1F059 | HPCI |
| HV-E41-1F004 | HPCI |
| HV-E41-1F003 | HPCI |
| HV-E41-1F042 | HPCI |
| HV-E41-1F075 | HPCI |
| HV-E41-1F008 | HPCI |
| HV-E41-1F007 | HPCI |
| HV-E41-1F066 | HPCI |
| HV-G33-1F004 | RWCU |
| HV-B21-1F019 | NSSS |
| HV-E11-1F008 | RHR |
| HV-E11-1F023 | RHR |
| HV-E11-1F049 | RHR |
| HV-B31-1F032A | RX RECIRC |
| HV-B31-1F032B | RX RECIRC |
| HV-B31-1F031A | RX RECIRC |
| HV-B31-1F031B | RX RECIRC |

SAFETY EVALUATION
AMENDMENT NO. 16 TO NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-387

Introduction

The licensee in a letter dated January 31, 1983, proposed a change to License Condition 2.C.(6) of the operating license for Susquehanna Steam Electric Station, Unit 1 to incorporate Revision 2 to the Susquehanna Steam Electric Station Fire Protection Review Report into the approved report. The proposed change would require the licensee to maintain and implement the provisions of the approved Fire Protection Review Report, as amended through Revision 2 dated November 1982.

The licensee in a letter dated May 4, 1983, proposed changes to the Technical Specifications of the operating license for Susquehanna Steam Electric Station, Unit 1 which are as follows:

- (a) Correct typographical errors in Technical Specification Table 4.11.2.1.2-1 by deleting the asterisk on "Gaseous Release Type" and changing the applicable footnote on "Principal Gamma Emitters" in part c. from "b" to "g".
- (b) Change various references to systems of equipment in Section 8.0, "Electrical Power Systems" as follows:
 - (1) On page 3/4 8-8, change Device Tag No. "62X-20310" and "62X-20410" to "62X2-20310" and "62X2-20410" respectively,
 - (2) On page 3/4 8-20, change "10622" to "10662" in Technical Specification 3.8.3.2.b.2.c),
 - (3) On pages 3/4 8-24 through 3/4 8-26, add "+" footnote notation to the section a. title, "Type 2 Molded Case Circuit Breakers". On page 3/4 8-26, add "+" footnote to read, "Each location no. represents two breakers, A and B, in series.",
 - (4) On page 3/4 8-24, change "1B414A" in item 6 and "HVE821F016" in item 14 to read "1V414A" and "HVB8211F016" respectively,
 - (5) On page 3/4 8-25, items 21, 22, and 24 through 28, change "1V417B", "1V414B", "1V415B", "1V416B", "1V411B", "1V413B", and "1V412B", respectively to "1V417B", "1V414B", "1V415B", "1V416B", "1V411B", "1V413B" and "1V412B", respectively,

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- (6) On page 3/4 8-26, change "IP402A" in item 33 to "1P402A", change "1B263087" in item 37 to "1B263081", change "IP4023" in item 38 to "1P4023", and change "IP403B" in item 40 to "1P403B",
 - (7) On page 3/4 8-27, change "Type 3 Molded Core Circuit Breakers" to "Type 3 Molded Case Circuit Breakers". In items 1 through 4, change "1E440C", "1E440D", "1E440B", and "1E440A" respectively to "1E440C", "1E440D", "1E440B", and "1E440A" respectively,
 - (8) On page 3/4 8-31, change valve number "HV-E11-1F0738" to "HV-E11-1F073B" and change valve number "HB-E32-1F009" to "HV-E32-1F009",
 - (9) On page 3/4 8-32, change valve number "HV-B31-1F032BB" to "HV-B31-F032B". For valve numbers HV-B31-1F032A, HV-B31-1F032B, HV-B31-1F031A and HV-B31-1F031B, change the System(s) Affected from "RHR" to "RX RECIRC".
- (c) Delete Technical Specification 4.7.2.b. paragraph 1 and renumber paragraphs 2, 3, and 4 as paragraphs 1, 2, and 3 respectively.
 - (d) Change the allowable value for the reactor vessel water level (high) trip setpoint in Technical Specification 3.3.9-2 from " ≤ 54.0 inches" to " ≤ 55.5 inches".

Evaluation

By letter dated December 30, 1982, the licensee provided to the NRC staff, Revision 2 to the Susquehanna Steam Electric Station Fire Protection Review Report. Changes in Revision 2 are primarily editorial in nature or reflect as-built conditions in the plant. The NRC staff has reviewed Revision 2 to the Fire Protection Review Report and has determined the changes to be within and comply with current NRC and industry guidelines. The NRC staff has also determined that the conclusions reached in the Safety Evaluation Report and supplements on fire protection remain valid, and on that basis Revision 2 is acceptable to the NRC staff for inclusion as part of the approved Fire Protection Review Report.

By letter dated January 31, 1983, the licensee requested a change to License Condition 2.C.(6) of Facility Operating License No. NPF-14 to read as follows:

"PP&L shall maintain in effect and fully implement all provisions of the approved Fire Protection Review Report. In addition, PP&L shall maintain the fire protection program set forth in Appendix R to 10 CFR Part 50."

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The NRC staff has reviewed this request and has determined that the specific revision to which the Fire Protection Review Report has been approved should be stated in the license condition, as is the case of its present format. This determination was discussed with and is acceptable to the licensee. Therefore, License Condition 2.C.(6) is changed to read:

"PP&L shall maintain in effect and fully implement all provisions of the approved Fire Protection Review Report, as amended through Revision 2 dated November 1982. In addition, PP&L shall maintain the fire protection program set forth in Appendix R to 10 CFR Part 50."

All changes described in paragraphs (a) and (b), above, as part of the licensee's submittal of May 4, 1983, are administrative in nature to correct typographical errors with the exception of paragraphs (b)(1) and (b)(3). The changes described in paragraph (b)(1) above were requested as a result of field changes to tag numbers on two devices. The change to the Technical Specification is to update the tag numbers to reflect the field change and maintain consistency. The changes described in paragraph (b)(3) above are provided to clarify the fact that each circuit breaker location represents two breakers in series, both of which are to be tested. The NRC staff has reviewed the proposed changes described in paragraphs (a) and (b) above and determined the changes are acceptable on the basis that the changes are administrative in nature to correct typographical errors, update nomenclature, or clarify current configurations.

The change described in paragraph (c) above, as part of the licensee's submittal of May 4, 1983, proposes to delete Technical Specification 4.7.2.b.1 as a non-applicable item to the as-built condition of Susquehanna Steam Electric Station, Unit 1. Specification 4.7.2.b.1 addresses the control and minimization of leakage through the bypass damper, if provided as part of the Control Room Emergency Outside Air Supply System. The licensee stated the Susquehanna design does not and was never intended to include a bypass connection. The NRC staff has reviewed the proposed change and finds it acceptable on the basis that the change is a result of editorial errors and should have been deleted in earlier reviews as a non-applicable item. With the deletion of Specification 4.7.2.b.1, the NRC staff also finds it acceptable to renumber sub-paragraphs 2, 3, and 4 under Specification 4.7.2.b to paragraphs 1, 2, and 3 respectively for continuity purposes.

The change described in paragraph (d) above, as part of the licensee's submittal of May 4, 1983, proposes to change the allowable value for the reactor vessel water level (high) trip setpoint from ≤ 54.0 inches to ≤ 55.5 inches. The licensee indicated in the PP&L submittal dated May 4, 1983, that a reanalysis of the "Feedwater Controller Failure to Maximum Demand" transient had been performed to determine the sensitivity of the operating limit minimum critical power ratio (OL-MCPR) to a change in the allowable value for the reactor vessel

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water level (high) trip setpoint from ≤ 54.0 inches to ≤ 55.5 inches. The results of the reanalysis indicate that the OL-MCPR remains the same. Other licensing basis events do not take credit for the high water level trip. The NRC staff has reviewed the licensee's proposed Technical Specification revision and the results of the supporting analysis and concludes that based on the OL-MCPR remaining the same, the proposed Technical Specification change is 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) 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: **SEP 28 1983**

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DATED: September 28, 1983

Amendment No. 16 - Susquehanna Steam Electric Station, Unit 1 (NPF-14)

Document Control (50-387)

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