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

November 15, 1990

Docket Nos. 50-387
and 50-388

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 FOR EMERGENCY DIESEL GENERATOR SURVEILLANCE TESTING, SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. 76371 AND 76372)

The Commission has issued the enclosed Amendment No. 103 to Facility Operating License No. NPF-14 and Amendment No. 69 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments are in response to your letter dated March 16, 1990, as revised by your letter dated April 2, 1990.

These amendments revise the Technical Specifications (TS) for Susquehanna Steam Electric Station (SSES), Units 1 and 2. The revisions to TS relate to the methodology of emergency diesel generator (EDG) surveillance testing, with particular emphasis on fast loading of EDGs during testing. Based on our evaluation of your request for changes, we conclude that the requested changes are acceptable except for the following changes which are being denied.

1. For Action 3.8.1.1.b.2, you proposed a footnote which states that if the diesel generator is taken out of service for preplanned preventative maintenance in accordance with operating time limits specified in the technical specifications, the remaining diesel generators need not be tested.

   The implementation of the proposed footnote does not meet guidelines of Regulatory Guide 1.93. However, if the footnote is revised as indicated in the enclosed safety evaluation, the staff can find this proposed change acceptable.

2. For TS Surveillance Requirements 4.8.1.1.2.a.5, 4.8.1.1.2.d.7, 4.8.1.1.3.a.5, and 4.8.1.1.3.d.4, you proposed a load range of 3600 to 4000kW to test the 4000kW continuous duty rating of the diesel generator and 4100 to 4400kW to test the 4700kW 2000 hour rating of the diesel generator. Load ranges that are generally accepted by the staff have been within 5 percent of the diesel generator rating (i.e., 3800 to 4000kW and 4400 to 4700kW). Without additional substantiating analysis or justification, the staff is unable to find the proposed load ranges acceptable.

3. For TS Surveillance Requirement 4.8.1.1.3.d.3, you proposed to add a load band of 3600-4000kW with attendant footnote (***) to the load rejection value for this Surveillance Requirement. We are concerned that performance of a load rejection test at 3600kW instead of 4000kW may not adequately meet the intent of the test. The load range for this test has, therefore, been found unacceptable.

We have received your letter dated August 7, 1990, revising your April 2, 1990 request to address the above concerns. The staff will evaluate the new request as a separate action.

Issuance of these amendments renders the related temporary waiver of compliance, granted on April 4, 1990, to be ineffective.

Copies of our Safety Evaluation and Notice of Partial Denial are also enclosed. Notice of Partial Denial has been forwarded to the Office of the Federal Register for publication. Notice of Issuance will be included in the Commission's Biweekly Federal Register Notice.

Sincerely,

/S/

Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 103 to License No. NPF-14
2. Amendment No. 69 to License No. NPF-22
3. Safety Evaluation
4. Notice of Partial Denial

cc w/enclosures:
See next page

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[SU TECH SPEC CHANGES]
*Previously Concurred

PDI-2/LA	PDI-2/PM	PDI-2/D	*OGC
MO'Brien	MThadani	WButler	CBarth
11/7/90	11/15/90	11/15/90	10/15/90

DF01
1/1

3. For TS Surveillance Requirement 4.8.1.1.3.d.3, you proposed to add a load band of 3600-4000kW with attendant footnote (***) to the load rejection value for this Surveillance Requirement. We are concerned that performance of a load rejection test at 3600kW instead of 4000kW may not adequately meet the intent of the test. The load range for this test has, therefore, been found unacceptable.

We have received your letter dated August 7, 1990, revising your April 2, 1990 request to address the above concerns. The staff will evaluate the new request as a separate action.

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Sincerely,

Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
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See next page

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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. 103
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated March 16, 1990, as revised April 2, 1990, 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. 103 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 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: November 15, 1990

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	MThadani		WButler
11/ /90	9/27/90	10/15/90	11/15/90

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

FOR THE NUCLEAR REGULATORY COMMISSION

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: November 15, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 103

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. The overleaf pages are provided to maintain document completeness.*

REMOVE	INSERT
3/4 8-1	3/4 8-1
-	3/4 8-1a
3/4 8-2	3/4 8-2
-	3/4 8-2a
3/4 8-3	3/4 8-3
3/4 8-4	3/4 8-4
3/4 8-5	3/4 8-5
3/4 8-6	3/4 8-6
3/4 8-6a	3/4 8-6a
3/4 8-6b	3/4 8-6b
3/4 8-6c	3/4 8-6c*
3/4 8-6d	3/4 8-6d
3/4 8-7	3/4 8-7
3/4 8-8	3/4 8-8*

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Four of the five separate and independent diesel generators+, each with:

1. Separate engine mounted day fuel tanks containing a minimum of 325 gallons of fuel,

2. A separate fuel storage system containing a minimum of 47,570 gallons of fuel for diesel generator A, B, C and D; and 60,480 gallons for diesel generator E, and

3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With one offsite circuit of the above 3.8.1.1.a required A.C. power sources inoperable:

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. For each of the four++ OPERABLE, aligned diesel generators:

a. Verify Surveillance Requirement 4.8.1.1.2.a.4 has been successfully performed within the last 24 hours, or

b. Perform Surveillance Requirement 4.8.1.1.2.a.4 sequentially on each diesel generator within 24 hours, and

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+Shared with Unit 2. An OPERABLE diesel generator may be removed from service for a period of eight hours when aligning diesel generator E to the Class 1E distribution system. If alignment of diesel generator E is not completed within eight hours, the appropriate ACTION will be followed. The specified time limits in the ACTION will be measured from the time alignment of diesel generator E began, with the exception of the initial performance of Surveillance Requirement 4.8.1.1.1.a. The time limit for 4.8.1.1.1.a will be measured from the determination that diesel generator E will not or can not be aligned.

++If the cause of the inoperability of the offsite circuit is inoperability of an ESS transformer, only the two diesel generators associated with the inoperable ESS transformer are required to be tested.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

3. Restore both offsite circuits to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one diesel generator of 3.8.1.1.b inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. For each of the remaining three OPERABLE, aligned diesel generators:

a. Verify Surveillance Requirement 4.8.1.1.2.a.4 has been successfully performed within the last 24 hours, or

b. Perform Surveillance Requirement 4.8.1.1.2.a.4 sequentially on each diesel generator within 24 hours, and

3. Restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

c. ## With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a on the remaining A.C. sources within one hour and at least once per 8 hours thereafter, and

2. Perform Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours on the remaining three OPERABLE aligned diesel generators, and

3. Restore one of the inoperable sources (offsite circuit or diesel generator) to OPERABLE status within 12 hours or be in HOT SHUTDOWN in the next 12 hours and COLD SHUTDOWN in the following 24 hours, and

4. Restore the other inoperable source to OPERABLE status in accordance with 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

d. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION b or c above,

1. Verify within two hours that all required systems, subsystems, trains, components, and devices that depend on the remaining aligned diesel generators as a source of emergency power are also OPERABLE, or

2. Be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN in the following 24 hours.

e. ## With both of the above required offsite circuits inoperable,

1. Perform Surveillance Requirement 4.8.1.1.2.a.4 for each of the four aligned diesel generators, one at a time, within 8 hours, unless the diesel generators are already running, and

2. Restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours, and

3. Restore the other inoperable offsite circuit to OPERABLE status within 72 hours from the time of initial loss of the first offsite circuit, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##Performance of Surveillance Requirement 4.8.1.1.2.a.4 per Action Statement c, e, or f above meets the requirements of Action Statements a or b.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

f. ## With two or more of the above required aligned diesel generators inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. Perform Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time for the remaining OPERABLE aligned diesel generators, within 2 hours and once per 8 hours thereafter, and

3. Restore at least three aligned diesel generators to OPERABLE status within two hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, and

4. Restore to four OPERABLE aligned diesel generators within 72 hours from time of loss of the first diesel generator or be in at least HOT SHUTDOWN in the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##Performance of Surveillance Requirement 4.8.1.1.2.a.4 per Action Statement c, e, or f above meets the requirements of Action Statements a or b.

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring, manually and automatically, unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2* Each of the above required diesel generators shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the engine-mounted day fuel tank.

2. Verifying the fuel level in the fuel storage tank.

3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4. Verifying the diesel starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

a) Manual.
b) Simulated loss of offsite power by itself.
c) Simulated loss of offsite power in conjunction with an ESF actuation test signal.
d) An ESF actuation test signal by itself.

5. Verifying the diesel generator is synchronized with the grid and operates for at least 60 minutes at a load** greater than or equal to 4000 KW***.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

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*All planned starts for the purpose of these surveillances may be preceded by a prelube period in accordance with vendor recommendations.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 92 days and from new fuel oil prior to addition to the storage tanks by verifying that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or $\geq$1.9 but $\leq$4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

d. At least once per 18 months by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2.** Verifying the diesel generator capability to reject a load of greater than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3.** Verifying the diesel generator capability to reject a load of 4000 kw without tripping. The generator voltage shall not exceed 4560 volts during and following the load rejection.

4. Simulating a loss of offsite power by itself, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

5. Verifying that on an ECCS actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

SURVEILLANCE REQUIREMENTS (Continued)

6. Simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

7.** Verifying with at least one unit in OPERATIONAL CONDITION 4
*** or 5 that the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4700 kW and during the remaining 22 hours of this test, the diesel generator shall be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

8. Within 5 minutes of completing a one hour run at 4000 Kw or within 5 minutes after operating temperatures have stabilized at a load of 4000 Kw, verify the hot restart capability of the diesel by performing 4.8.1.1.2.a.4.

9. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4700 kW.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

10. Verifying the diesel generator's capability to:

    a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

    b) Transfer its loads to the offsite power source, and

    c) Be restored to its standby status.

11. Verifying that with the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with offsite power.

12. Verifying that each diesel generator loading sequence timer shown in Table 4.8.1.1.2-2 is OPERABLE with its setpoint within ± 10% of its design setpoint, except for the RHR pump timers, which may have a tolerance of +20%, -10%.

13. Verifying that the following diesel generator lockout features do not prevent diesel generator starting and/or operation when not required:

    a) Engine overspeed.
    b) Generator differential.
    c) Engine low lube oil pressure.

e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 600 rpm in less than or equal to 10 seconds.

f. At least once per 10 years by:

    1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite or equivalent solution, and

    2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI Article IWD-5000.

4.8.1.1.3* Diesel generator E when not aligned to the Class 1E System shall be demonstrated OPERABLE by:

a. Verifying in accordance with the frequency specified in Table 4.8.1.1.2-1:

    1. The fuel level in the engine-mounted day fuel tank.

    2. The fuel level in the fuel storage tank.

*All planned starts for the purpose of these surveillances may be preceded by a prelube period in accordance with vendor recommendations.

SURVEILLANCE REQUIREMENTS (Continued)

3. The fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4.###The diesel manually starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency are 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal.

5.###The diesel generator is synchronized with the grid, loaded** to greater than or equal to 4000 Kw*** and operates for at least 60 minutes.

6. The pressure in the diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

c. Verifying at least once per 92 days and from new fuel oil prior to addition to the storage tanks that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or 1.9 but 4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

d. Verifying at least once per 18 months if Specification 4.8.1.1.2.d has not been performed:

1. An inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service is performed.

2.** The diesel generators capability to reject a load of greater ###than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3.** The diesel generators capability to reject a load of 4000 kw ***without tripping. The generator voltage shall not exceed 4560 volts ###during and following the load rejection.

4.** The diesel generator operates for at least 24 hours. During ***the first 2 hours of this test, the diesel generator shall be ###loaded to greater than or equal to 4700 kw and during the remaining 22 hours of this test, the diesel generator shall be

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

###These tests may be conducted utilizing the test facility.

loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

5. The following diesel generator lockout features do not prevent diesel generator starting and/or operation when not required:

   a) Engine overspeed.
   b) Generator differential.
   c) Engine low lube oil pressure.

6. Either:

   a) on a rotational basis substitute diesel generator E for diesel generator A, B, C, or D and

      i) Simulate a loss of offsite power by itself, and:

         a) Verify deenergization of the emergency bus and load shedding from the emergency bus

         b) Verify diesel generator E starts on the auto-start signal, energizes the emergency bus with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency bus shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

      ii) Verify that on an ECCS actuation test signal, without loss of off-site power, diesel generator E starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test, and

      iii) Simulate a loss-of-offsite power in conjunction with an ECCS actuation test signal, and

         a) verify deenergization of the emergency bus and load shedding from the emergency bus.

SURVEILLANCE REQUIREMENTS (Continued)

b) Verify diesel generator E starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

c) Verify that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal, and

iv) Verify the diesel generator E's capability to:

a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

b) Transfer its loads to the offsite power source, and

c) Be restored to its standby status, and

v) Verify that with diesel generator E operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning diesel generator E to standby operation, and (2) automatically energizes the emergency loads with offsite power, or

b) On a test facility

i) Simulate a loss-of-offsite power by itself and verify diesel generator E starts on the auto-start signal, energizes the simulated emergency bus with simulated permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the simulated shutdown loads. After energization, the steady state voltage and frequency of the simulated emergency bus are maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test and

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SURVEILLANCE REQUIREMENTS (Continued)

ii) Simulate an ECCS actuation test signal, without loss of offsite power and verify that diesel generator E starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal, the steady state generator voltage and frequency shall be maintained within these limits during this test, and

iii) Simulate a loss-of-offsite power in conjunction with an ECCS actuation test signal and verify diesel generator E starts on the auto-start signal, energizes the simulated emergency bus with simulated permanently connected loads with 10 seconds, energizes the simulated auto-connected loads and operates for greater than or equal to 5 minutes while its generator is loaded with the simulated emergency loads. After energization, the steady state voltage and frequency of the simulated emergency bus are maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

a) Verify that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal, and

iv) On a rotational basis, substitute diesel generator E for diesel generator A, B, C or D and verify diesel generator E energizes the appropriate emergency bus, and

a) Verify the diesel generator E's capability to:

1) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

2) Transfer its loads to the offsite power source, and

3) Be restored to standby status, and

b) Verify that with diesel generator E operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation and (2) automatically energizes the emergency loads with offsite power.

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

Number of Failures in Last 20 Valid Tests[a]	Test Frequency
≤ 1	At least once per 31 days
≥ 2	At least once per 7 days[b]

(a) 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 number of tests are determined on a per diesel generator 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 20 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

(b) This test frequency shall be maintained until seven consecutive failure free demands have been performed and the number of failures in the last 20 valid demands has been reduced to one or less.

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

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
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
62A-20102	RHR Pump 2A	2A201	3 sec
62A-20202	RHR Pump 2B	2A202	3 sec
62A-20302	RHR Pump 2C	2A203	3 sec
62A-20402	RHR Pump 2D	2A204	3 sec
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
K116A	CS pp 2A	2C626	10.5 sec
K116B	CS pp 2B	2C627	10.5 sec
K125A	CS pp 2C	2C626	10.5 sec
K125B	CS pp 2D	2C627	10.5 sec
62AX2-20108	Emergency Service Water (ESW)	1A201	40 sec
62AX2-20208	Emergency Service Water (ESW)	1A202	40 sec
62AX2-20303	Emergency Service Water (ESW)	1A203	44 sec
62AX2-20403	Emergency Service Water (ESW)	1A204	48 sec
62X3-20304	Control Structure Chilled Water System	0C877A	60 sec
62X3-20404	Control Structure Chilled Water System	0C877B	60 sec
62X-20104	Emergency Switchgear Rm. Cooler A & RHR SW pp H&V Fan A	0C877A	60 sec

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. 69
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated March 16, 1990, as revised April 2, 1990, 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. 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 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: November 15, 1990

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D
MO'Brien	MThadani		WButler
11/7/90	9/27/90	10/18/90	11/15/90

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

FOR THE NUCLEAR REGULATORY COMMISSION

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: November 15, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

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. The overleaf pages are provided to maintain document completeness.*

REMOVE	INSERT
3/4 8-1	3/4 8-1
-	3/4 8-1a
3/4 8-2	3/4 8-2
-	3/4 8-2a
3/4 8-3	3/4 8-3
3/4 8-4	3/4 8-4
3/4 8-5	3/4 8-5
3/4 8-6	3/4 8-6
3/4 8-6a	3/4 8-6a
3/4 8-6b	3/4 8-6b
3/4 8-6c	3/4 8-6c*
3/4 8-6d	3/4 8-6d
3/4 8-7	3/4 8-7
3/4 8-8	3/4 8-8*

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Four of the five separate and independent diesel generators+, each with:

1. Separate engine mounted day fuel tanks containing a minimum of 325 gallons of fuel,

2. A separate fuel storage system containing a minimum of 47,570 gallons of fuel for diesel generators A, B, C and D; and 60,480 gallons for diesel generator E, and

3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With one offsite circuit of the above 3.8.1.1.a required A.C. power sources inoperable:

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. For each of the four++ OPERABLE, aligned diesel generators:

a. Verify Surveillance Requirement 4.8.1.1.2.a.4 has been successfully performed within the last 24 hours, or

b. Perform Surveillance Requirement 4.8.1.1.2.a.4 sequentially on each diesel generator within 24 hours, and

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+Shared with Unit 1. An OPERABLE diesel generator may be removed from service for a period of eight hours when aligning diesel generator E to the Class 1E distribution system. If alignment of diesel generator E is not completed within eight hours, the appropriate ACTION will be followed. The specified time limits in the ACTION will be measured from the time alignment of diesel generator E began, with the exception of the initial performance of Surveillance Requirement 4.8.1.1.1.a. The time limit for 4.8.1.1.1.a will be measured from the determination that diesel generator E will not or can not be aligned.

++If the cause of the inoperability of the offsite circuit is inoperability of an ESS transformer, only the two diesel generators associated with the inoperable ESS transformer are required to be tested.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

3. Restore both offsite circuits to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one diesel generator of 3.8.1.1.b inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. For each of the remaining three OPERABLE, aligned diesel generators:

a. Verify Surveillance Requirement 4.8.1.1.2.a.4 has been successfully performed within the last 24 hours, or

b. Perform Surveillance Requirement 4.8.1.1.2.a.4 sequentially on each diesel generator within 24 hours, and

3. Restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

c. ## With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a on the remaining A.C. sources within one hour and at least once per 8 hours thereafter, and
2. Perform Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours on the remaining three OPERABLE aligned diesel generators, and
3. Restore one of the inoperable sources (offsite circuit or diesel generator) to OPERABLE status within 12 hours or be in HOT SHUTDOWN in the next 12 hours and COLD SHUTDOWN in the following 24 hours, and
4. Restore the other inoperable source to OPERABLE status in accordance with 3.8.1.1 ACTION a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

d. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION b or c above,

1. Verify within two hours that all required systems, subsystems, trains, components, and devices that depend on the remaining aligned diesel generators as a source of emergency power are also OPERABLE, or
2. Be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN in the following 24 hours.

e. ## With both of the above required offsite circuits inoperable,

1. Perform Surveillance Requirement 4.8.1.1.2.a.4 for each of the four aligned diesel generators, one at a time, within 8 hours, unless the diesel generators are already running, and
2. Restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours, and
3. Restore the other inoperable offsite circuit to OPERABLE status within 72 hours from the time of initial loss of the first offsite circuit, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##Performance of Surveillance Requirement 4.8.1.1.2.a.4 per Action Statement c, e, or f above meets the requirements of Action Statements a or b.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

f. ## With two or more of the above required aligned diesel generators inoperable,

1. Perform Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter, and

2. Perform Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time for the remaining OPERABLE aligned diesel generators, within 2 hours and once per 8 hours thereafter, and

3. Restore at least three aligned diesel generators to OPERABLE status within two hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, and

4. Restore to four OPERABLE aligned diesel generators within 72 hours from time of loss of the first diesel generator or be in at least HOT SHUTDOWN in the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

##Performance of Surveillance Requirement 4.8.1.1.2.a.4 per Action Statement c, e, or f above meets the requirements of Action Statements a or b.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring, manually and automatically, unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2* Each of the above required diesel generators shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the engine-mounted day fuel tank.

2. Verifying the fuel level in the fuel storage tank.

3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4. Verifying the diesel starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

a) Manual.
b) Simulated loss of offsite power by itself.
c) Simulated loss of offsite power in conjunction with an ESF actuation test signal.
d) An ESF actuation test signal by itself.

5. Verifying the diesel generator is synchronized with the grid and operates for at least 60 minutes at a load** greater than or equal to 4000 KW***.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

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*All planned starts for the purpose of these surveillances may be preceded by a prelube period in accordance with vendor recommendations.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 92 days and from new fuel oil prior to addition to the storage tanks by verifying that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to 0.05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or >1.9 but <4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg of insolubles per 100 mL when tested in accordance with ASTM-D2274-70.

d. At least once per 18 months by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2.** Verifying the diesel generator capability to reject a load of greater than or equal to 1425 kW while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3.** Verifying the diesel generator capability to reject a load of 4000 kW without tripping. The generator voltage shall not exceed 4560 volts during and following the load rejection.

4. Simulating a loss-of-offsite power by itself, and:

a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

5. Verifying that on an ECCS actuation test signal, without loss-of-offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

SURVEILLANCE REQUIREMENTS (Continued)

6. Simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

7.** *** Verifying with at least one unit in OPERATIONAL CONDITION 4 or 5 that the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4700 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

8. Within 5 minutes of completing a one hour run at 4000 Kw or within 5 minutes after operating temperatures have stabilized at a load of 4000 Kw, verify the hot restart capability of the diesel by performing 4.8.1.1.2.a.4.

9. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4700 kW.

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

10. Verifying the diesel generator's capability to:

    a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

    b) Transfer its loads to the offsite power source, and

    c) Be restored to its standby status.

11. Verifying that with the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with offsite power.

12. Verifying that each diesel generator loading sequence timer shown in Table 4.8.1.1.2-2 is OPERABLE with its setpoint within ± 10% of its design setpoint, except for the RHR pump timers, which may have a tolerance of +20%, -10%.

13. Verifying that the following diesel generator lockout features do not prevent diesel generator starting and/or operation when not required:

    a) Engine overspeed.

    b) Generator differential.

    c) Engine low lube oil pressure.

e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 600 rpm in less than or equal to 10 seconds.

f. At least once per 10 years by:

    1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite or equivalent solution, and

    2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI Article IWD-5000.

4.8.1.1.3* Diesel generator E when not aligned to the Class 1E System shall be demonstrated OPERABLE by:

a. Verifying in accordance with the frequency specified in Table 4.8.1.1.2-1:

    1. The fuel level in the engine-mounted day fuel tank.

    2. The fuel level in the fuel storage tank.

*All planned starts for the purpose of these surveillances may be preceded by a prelube period in accordance with vendor recommendations.

SURVEILLANCE REQUIREMENTS (Continued)

3. The fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4.###The diesel manually starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency are 4160 ± 400 volts and 60 ± 3.0 hz within 10 seconds after the start signal.

5.###The diesel generator is synchronized with the grid, loaded** to greater than or equal to 4000 Kw*** and operates for at least 60 minutes.

6. The pressure in the diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

c. Verifying at least once per 92 days and from new fuel oil prior to addition to the storage tanks that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or $\geq$1.9 but $\leq$4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

d. Verifying at least once per 18 months if Specification 4.8.1.1.2.d has not been performed:

1. An inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service is performed.

2.** The diesel generators capability to reject a load of greater ### than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3.** The diesel generators capability to reject a load of 4000 kw *** without tripping. The generator voltage shall not exceed 4560 volts ### during and following the load rejection.

4.** The diesel generator operates for at least 24 hours. During *** the first 2 hours of this test, the diesel generator shall be ### loaded to greater than or equal to 4700 kW and during the remaining 22 hours of this test, the diesel generator shall be

**Diesel generator loading may be preceded by a warmup period in accordance with vendor recommendations. Diesel generator loading may be accomplished in accordance with vendor recommendations.

***This load is meant as guidance to avoid routine overloading of diesel generators. Momentary transients outside the load range will not invalidate the test.

###These tests may be conducted utilizing the test facility.

loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 second after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

5. The following diesel generator lockout features do not prevent diesel generator starting and/or operation when not required:

   a) Engine overspeed.
   b) Generator differential.
   c) Engine low lube oil pressure.

6. Either:

   a) on a rotational basis substitute diesel generator E for diesel generator A, B, C, or D and

      i) Simulate a loss of offsite power by itself, and:

         a) Verify deenergization of the emergency bus and load shedding from the emergency bus

         b) Verify diesel generator E starts on the auto-start signal, energizes the emergency bus with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency bus shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

      ii) Verify that on an ECCS actuation test signal, without loss of off-site power, diesel generator E starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test, and

      iii) Simulate a loss-of-offsite power in conjunction with an ECCS actuation test signal, and

         a) verify deenergization of the emergency bus and load shedding from the emergency bus.

SURVEILLANCE REQUIREMENTS (Continued)

b) Verify diesel generator E starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

c) Verify that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal, and

iv) Verify the diesel generator E's capability to:

a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

b) Transfer its loads to the offsite power source, and

c) Be restored to its standby status, and

v) Verify that with diesel generator E operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning diesel generator E to standby operation, and (2) automatically energizes the emergency loads with offsite power, or

b) On a test facility

i) Simulate a loss-of-offsite power by itself and verify diesel generator E starts on the auto-start signal, energizes the simulated emergency bus with simulated permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the simulated shutdown loads. After energization, the steady state voltage and frequency of the simulated emergency bus are maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test and

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SURVEILLANCE REQUIREMENTS (Continued)

ii) Simulate an ECCS actuation test signal, without loss of offsite power and verify that diesel generator E starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the auto-start signal, the steady state generator voltage and frequency shall be maintained within these limits during this test,

and

iii) Simulate a loss-of-offsite power in conjunction with an ECCS actuation test signal and verify diesel generator E starts on the auto-start signal, energizes the simulated emergency bus with simulated permanently connected loads within 10 seconds, energizes the simulated auto-connected loads and operates for greater than or equal to 5 minutes while its generator is loaded with the simulated emergency loads. After energization, the steady state voltage and frequency of the simulated emergency bus are maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

a) Verify that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal, and

iv) On a rotational basis, substitute diesel generator E for diesel generator A, B, C or D and verify diesel generator E energizes the appropriate emergency bus, and

a) Verify the diesel generator E's capability to:

1) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

2) Transfer its loads to the offsite power source, and

3) Be restored to standby status, and

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

Number of Failures in Last 20 Valid Tests [a]	Test Frequency
≤ 1	At least once per 31 days
≥ 2	At least once per 7 days[b]

[a] 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 number of tests are determined on a per diesel generator 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 20 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

[b] This test frequency shall be maintained until seven consecutive failure free demands have been performed and the number of failures in the last 20 valid demands has been reduced to one or less.

TABLE 4.8.1.1.2-2

UNIT 1 AND UNIT 2

DIESEL GENERATOR LOADING TIMERS

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
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
62A-20102	RHR Pump 2A	2A201	3 sec
62A-20202	RHR Pump 2B	2A202	3 sec
62A-20302	RHR Pump 2C	2A203	3 sec
62A-20402	RHR Pump 2D	2A204	3 sec
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
K116A	CS pp 2A	2C626	10.5 sec
K116B	CS pp 2B	2C627	10.5 sec
K125A	CS pp 2C	2C626	10.5 sec
K125B	CS pp 2D	2C627	10.5 sec
62AX2-20108	Emergency Service Water (ESW)	1A201	40 sec
62AX2-20208	Emergency Service Water (ESW)	1A202	40 sec
62AX2-20303	Emergency Service Water (ESW)	1A203	44 sec
62AX2-20403	Emergency Service Water (ESW)	1A204	48 sec
62X3-20304	Control Structure Chilled Water System	0C877A	60 sec
62X3-20404	Control Structure Chilled Water System	0C877B	60 sec
62X-20104	Emergency Switchgear Rm Cooler A & RHR SW pp H&V Fan A	0C877A	60 sec

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 103 TO FACILITY OPERATING LICENSE NO. NPF-14 AND

AMENDMENT NO. 69 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 March 16, 1990, as revised April 2, 1990, Pennsylvania Power and Light Company requested an amendment to Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. The proposed amendments would change Section 3/4.8 of the Technical Specifications (TS) for Susquehanna Steam Electric Station (SSES), Units 1 and 2. The changes deal primarily with the methodology of diesel generator surveillance testing, and in particular with fast loading of diesel generators during testing.

In its March 16, 1990 letter, the licensee identified current diesel generator testing requirements as a "potential root cause" of the September and October 1989 diesel generator overpressurization events, as well as being "a contributor to engine degradation." In light of this, the licensee requested TS changes to eliminate what they perceive to be a contributor to a problem.

It should be noted that the diesel generator overpressurization events mentioned above are the subject of a separate staff review, and this evaluation does not address the issues related to diesel generator testing as a "potential root cause" of overpressurization events. However, the staff recognizes that certain aspects of the current SSES diesel generator surveillance requirements are not consistent with good operating practice, and the licensee's requested TS changes have been reviewed on that basis. The staff is presently evaluating the diesel generator testing methodology on a generic basis. The staff's positions regarding the diesel generator testing will be summarized in Revision 3 to Regulatory Guide 1.9.

2.0 EVALUATION

The following staff evaluation is keyed to the applicable TS sections in which changes have been proposed and is applicable to Units 1 and 2.

On April 4, 1990, the staff granted a temporary waiver of compliance from the provisions of the TS Sections 3.8.1.1 and 4.8.1.1. The granting of that waiver was contingent upon the licensee's performing certain tests of the refurbished diesel generators in accordance with the licensee's proposals to revise the TS Sections 3.8.1.1 and 4.8.1.1. The waiver of compliance expires upon issuance of amendments supported by this safety evaluation.

Limiting Condition for Operation 3.8.1.1.b

The footnote associated with this LCO is modified to include a clarification that, in the event diesel generator E cannot or will not be substituted for any one of diesel generators A-D, the time limit for performance of SR 4.8.1.1.1 will commence when an inoperability determination regarding a diesel generator is made.

The staff has reviewed this proposed change and concluded that it is a clarification that does not alter the intent of the original specification. This change is, therefore, acceptable.

Actions 3.8.1.1.a through f

The most significant change to these actions is the elimination of the single paragraph format for each action, and the substitution of several sub-paragraphs for each action. The staff considers this restructuring of the TS format to be an administrative change and therefore finds it acceptable.

In addition to the above format change, the licensee has made other changes and added clarifying footnotes to various subparagraphs in several of the above actions. These are discussed below.

- Actions 3.8.1.1.a.2.a) and 3.8.1.1.b.2.a). The licensee has added an optional action to the effect that a diesel generator need not be tested if it has been successfully tested within the past 24 hours. The licensee indicated in justification of this change that testing an engine 24 hours prior to the event which caused entrance into the ACTION provides the same level of confidence that the machine will be able to perform its intended safety function. The staff agrees with the licensee's justification and therefore finds the proposed change to be acceptable.

- Action 3.8.1.1.a.2. The licensee has added a footnote (++) to the effect that if an offsite power circuit is inoperable because an ESS transformer is inoperable, only the diesel generators associated with that transformer need be tested. The normal offsite power system arrangement at Susquehanna allows each safety division to have access to two independent offsite power circuits. When one ESS transformer is out of service, two of the four safety divisions at Susquehanna will

have one versus two independent offsite circuits. The other two safety divisions will continue to have access to two offsite circuits. Because two independent offsite circuits remain operable between the offsite grid system and the safety buses, the staff considers the licensee's proposed change to be acceptable. Also, the staff is considering generically, as part of its review of the Standard Technical Specifications, the elimination of diesel generator testing on loss of an offsite circuit.

o Action 3.8.1.1.b.2. The licensee has proposed a footnote (#) to the effect that if a diesel generator is inoperable due solely to preplanned preventative maintenance, there is no requirement to test the remaining operable diesel generators. A primary reason for requiring remaining diesel generators to be tested when one diesel generator becomes inoperable is to ensure that the inoperability is not due to a common cause. In the case of preplanned preventative maintenance, it is clear that a common cause does not exist. Consequently, testing the remaining diesel generators would add a test cycle without any measurable benefit. The proposed footnote will eliminate unnecessary starts under these conditions. The staff finds this consistent with the provisions of GL 84-15. However, the footnote implies incorrectly that diesel generators may be taken out of service in accordance with operating time limits specified in the technical specification. The operating time limits should not be construed to include preplanned preventive maintenance activities which require the incapacitation of any required electric power source. Such activities should be scheduled for performance during cold shutdown and/or refueling activities (reference: Position C5 of Regulatory Guide 1.93). Therefore, the proposed footnote is not acceptable.

  The staff is considering generically, as part of its review of the Standard Technical Specifications, a resolution of this issue. If the footnote is revised to remove the above described implication, the staff can conclude that the change is consistent with the generic resolution and is acceptable.

  Proposal for revised footnote: This ACTION is not required to be performed if the absence of common cause for the diesel generator inoperability can be established for the remaining diesel generators.

  The above footnote has also been applied to Action 3.8.1.1.c.2. The staff can find it acceptable for the same reasons as in Action 3.8.1.1.b.2.

o Action 3.8.1.1.c. This Action addresses the inoperability of one offsite ac source and one diesel generator. Upon restoration of one of the inoperable power sources, this Action reverts to the Action associated with the remaining inoperable power source. In the event the diesel generator is restored to operability, the controlling Action would become 3.8.1.1.a. Under this action, there is a requirement to test the diesel generators. However, the diesel generators would have

already been tested under Action 3.8.1.1.c, and testing again to satisfy the requirements of Action 3.8.1.1.a would serve no useful purpose. To the contrary, it would require unnecessary diesel generator testing that is in direct conflict with the provisions of GL 84-15. The same conditions apply if the offsite source is restored first; i.e., Action 3.8.1.1.b applies.

The licensee has proposed adding a footnote (##) to the TS which would allow diesel generator testing under Action 3.8.1.1.c to meet the requirements for diesel generator testing in Actions 3.8.1.1.a. and 3.8.1.1.b. The staff finds this footnote to be acceptable on the basis that it will eliminate unnecessary diesel generator testing as recommended in GL 84-15.

The same footnote is applied to Actions 3.8.1.1.e (two offsite sources inoperable) and 3.8.1.1.f (two or more diesel generators inoperable). Both actions require diesel generator testing. However, upon restoration of either an offsite source or a diesel generator, the required Action becomes 3.8.1.1.a or 3.8.1.1.b, each with its own diesel generator testing requirements. As stated above, such additional testing serves no useful purpose, and should be eliminated. Therefore, the licensee's proposal to make the above footnote applicable to Actions 3.8.1.1.e and 3.8.1.1.f is acceptable.

Surveillance Requirements 4.8.1.1.1 thru 4.8.1.1.3

Surveillance requirements (SR) have been modified to include footnotes for various tests, add a load operating range for selected diesel generator surveillances, and to include some editorial changes. Each of the proposed changes is listed below along with the applicable staff evaluation.

- SR 4.8.1.1.2. The licensee has added a footnote (*) to this SR which allows prelubing of the diesel engine prior to any starts for purposes of satisfying these surveillances. The staff is aware that no, or inadequate, prelube over a period of time has caused catastrophic failure of diesel generators in nuclear service. Therefore, prelubing of an engine prior to starting is highly recommended in order to improve reliability. The staff is also aware that diesel generators will not be prelubed if called upon to operate in an emergency. However, it has been adequately demonstrated that diesel generators can start as required without prelube. Therefore, prelubing does not raise a question regarding the validity of surveillance testing to demonstrate diesel generator operability. The licensee's proposed footnote regarding prelube is, therefore, acceptable.

- SR 4.8.1.1.2.a.4. This surveillance was revised to show the generator voltage and frequency as 4160 ±400 volts and 60±3.0 Hz within ten seconds after a start signal. These values are consistent with what is in the remainder of the TS, and the staff considers this to be an administrative change. The proposed change is, therefore, acceptable.

- SR 4.8.1.1.2.a.5. This SR is changed to delete the requirement to test diesel generators at equal to or greater than 4000kw, delete the requirement to reach 4000kw in 90 seconds, and to add two footnotes, (**) and (***).

  The requirement to load a diesel generator to equal to or greater than 4000kw can lead to overloading in order to ensure compliance with TS requirements. In at least one instance, overloading has contributed to catastrophic engine failure. The staff has, therefore, allowed licensees to test diesel generators in a load band within 5 percent of the diesel generator's continuous or overload ratings. In the staff's view, this will enhance overall diesel generator reliability. The licensee's proposal to substitute a load range of 3600-4000kw meets the intent for enhancing diesel generator reliability; however, the load range of 3600-4000kw exceeds the 5 percent band (i.e., 3800 to 4000kw) that has been generally accepted by the staff. The staff is concerned that a load band greater than 5 percent may not adequately demonstrate the diesel generator's capability to supply design basis load requirements. The proposed load band is, therefore, unacceptable. And, for similar reasons, the load band of 4100-4400kw (used to simulate the diesel generator's capability to supply power when overloaded) is not within 5 percent of 4700kw and is unacceptable.

  The proposed change also deletes the requirement to load the diesel generator from 0 to 4000kw in 90 seconds or less. The staff has determined that this type of fast loading does not simulate the block loading a diesel generator will see in an actual emergency, and that fast loading is detrimental to diesel generator reliability. In light of the negative aspects of fast loading, the staff now recommends that diesel generators be loaded in accordance with vendor recommendations, including a warmup period, as applicable. A footnote (**) has been added to this SR which contains specific language to allow warmup and loading as recommended by the vendor. This footnote is acceptable for the above stated reasons. A second footnote (***) addresses the load range discussed above, and contains language to the effect that momentary transients outside the stated load range will not invalidate the test. The staff finds this acceptable on the basis that allowing some leeway can preclude the necessity for retesting, and that reducing the number of diesel generator tests is consistent with the provisions of GL 84-15.

  In addition to the above, this SR has been modified to indicate that the diesel generator is synchronized "with the grid" for loading during test. The staff considers this to be an administrative or editorial change, and concludes that it is acceptable.

- SR 4.8.1.1.2.d.2. This SR is modified to include footnote (**). This change is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

- SR 4.8.1.1.2.d.3. This SR is modified to include footnote (**). This change is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

- SR 4.8.1.1.2.d.7. This SR has been modified "to greater than or equal to 4700kw" as they relate to diesel generator loading for the first two hours and the remaining 22 hours of the 24 hour test, respectively. The licensee has substituted load ranges of 4100-4400kw and 3600-4000kw for the above two hour and 22 hour loads. The staff finds this load range substitution to be unacceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

  Footnotes (**) and (***) are also added to this SR. The inclusion of these footnotes is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

- SR 4.8.1.1.2.d.8. The SR has been modified to delete the requirement that the diesel be loaded after hot start with permanently connected loads within 10 seconds and operate with shutdown loads for 5 minutes. The staff is considering generically, as part of its review of the Standard Technical Specifications, the elimination of loading after hot start. As part of this generic review, the staff has concluded that other tests verify the load carrying capability of the diesel generator and need not be repeated as part of a test whose objective is to demonstrate the hot start capability of the diesel generator. Loading when the diesel generator is hot is not considered to be a problem. On this basis the staff finds the addition of the proposed footnote to be acceptable.

- SR 4.8.1.1.3. This SR is modified to include footnote (*). This change is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.

- SR 4.8.1.1.3.a.4. This SR covers the "E" diesel generator. It is modified to include footnote (###). Footnote (###) provides a clarification that this SR as it applies to diesel generator E can be conducted utilizing the test facility. It is the staff's view that diesel generator operation at load for the minimum required time, regardless of the load source, satisfies this SR. The proposed footnote is, therefore, acceptable.

- SR 4.8.1.1.3.a.5. This SR is modified to include the load range of 3600-4000kw, footnotes (**) and (***), an editorial change regarding synchronizing with the grid, and footnote (###).

  The above load range, footnotes (**) and (***), and the editorial change are identical to those included in SR 4.8.1.1.2.a.5. The load range is unacceptable and the footnotes and editorial changes are acceptable for the same reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

Footnote (###) is identical to the footnote included in SR 4.8.1.1.3.a.4 and is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.3.a.4.

o SR 4.8.1.1.3.d.2. This SR is modified to include footnote (###) and footnote (**).

Footnote (###) is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.3.a.4.

Footnote (**) is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5. (Note - footnote (***) is not applicable to this SR).

o SR 4.8.1.1.3.d.3. This SR is modified to substitute a load range of 3600-4000kw for the original 4000kw load rejection, adds footnotes (**) and (***), and footnote (###).

Footnote (**) is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5 relative to this SR.

Footnote (###) is identical to the footnote included in SR 4.8.1.1.3.a.4 and is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.3.a.4.

The proposed load range of 3600-4000kw is not acceptable because it could allow the load rejection to be conducted at less than 4000kw which would defeat the purpose of the test. Footnote (***) provides clarification of the load range. Since it is directly associated with the proposed load range, it is also not acceptable.

o SR 4.8.1.1.3.d.4. This SR is modified to include load ranges of 4100-4400kw and 3600-4000kw, footnotes (**) and (***), and footnote (###).

The footnotes (**) and (***) are identical to those included in SR 4.8.1.1.2.d.7. These changes to SR 4.8.1.1.3.d.4 are acceptable for the same reasons stated in the staff evaluation of SR 4.8.1.1.2.d.7.

The load ranges of 4100-4400kw and 3600-4000kw are identical to those included in SR 4.8.1.1.2.d.7. These changes are unacceptable for the same reasons stated in the staff evaluation of SR 4.8.1.1.2.a.5.

Footnote (###) is acceptable for the reasons stated in the staff evaluation of SR 4.8.1.1.3.a.4.

o Table 4.8.1.1.2-1

This Table is modified to delete the requirement for diesel generator surveillance testing at 14 day intervals as a function of the number of diesel generator failures. The revised table will now include surveillance testing at 31 day and 7 day intervals, only. In addition, the failure criterion is changed and is now based on the last 20 valid tests as opposed to the last 100 valid tests. The testing frequency will now be 31 days if failures are equal to or less than one, and 7 days if failures are equal to or greater than 2, based on the last 20 valid tests.

Note (STAR) is changed to Note (a), and is changed to delete reference to the "last 100 valid" tests and substitute "the last 20 valid" tests. There is also a minor editorial change wherein "last 100 tests" becomes "number of tests."

Note (b) is added to provide guidance regarding how long the 7 day testing interval must be maintained.

The above changes to Table 4.8.1.1.2-1 are consistent with the provisions of GL 84-15 with respect to reducing the total number of diesel generator tests. They are, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes 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 these amendments involve 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (55 FR 14150) on April 16, 1990 and consulted with the Commonwealth of Pennsylvania. No public comments were received, and the Commonwealth 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 these amendments will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: November 15, 1990

Principal Contributor: J. Knox

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

PENNSYLVANIA POWER AND LIGHT COMPANY

DOCKET NOS. 50-387 AND 50-388

PARTIAL DENIAL OF AMENDMENTS TO FACILITY OPERATING LICENSES AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) has denied a portion of a request by Pennsylvania Power and Light Company (the licensee) for an amendment to Facility Operating License Nos. NPF-14 and NPF-22 issued to the licensee for operation of the Susquehanna Steam Electric Station, Units 1 and 2 (the facility), located in Luzerne County, Pennsylvania.

The denied portion of the proposed amendment would have revised Sections 3.8.1.1.b.2, 4.8.1.1.2.a.5, 4.8.1.1.2.d.7, 4.8.1.1.3.a.5, 4.8.1.1.3.d.4, and 4.8.1.1.3.d.3 in the Technical Specifications. Notice of Consideration of Issuance of the amendments was published in the FEDERAL REGISTER on April 16, 1990 (55 FR 14150). The licensee's application for amendments was dated March 16, 1990, as supplemented April 2, 1990.

By December 24, 1990 , the licensee may demand a hearing with respect to the denial described above, and any person whose interest may be affected by this proceeding may file a written petition for leave to intervene.

A request for a hearing or petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commision's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, DC, by the above date.

A copy of any petitions should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC, 20555, and to Jay Silberg, Esq., Shaw, Pittman, Potts & Trowbridge, 2300 N Street, N.W., Washington, DC, 20037, attorney for the licensee.

For further details with respect to this action, see (1) the application for amendments dated March 16, 1990, as amended April 2, 1990, and (2) the Commission's letter to Pennsylvania Power & Light Company dated November 15, 1990 , which are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, DC, and at the Osterhout Free Library, Reference Department, 71 South Franklin Street, Wilkes-Barre, Pennsylvania 18701. A copy of item (2) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects I/II.

Dated at Rockville, Maryland, this 15th day of November 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation