50-387/388

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 24, 1998

See Amend to License

Mr. Robert G. Byram
Senior Vice President-Generation
and Chief Nuclear Officer
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, PA 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M93306 AND M93307)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No.177 to Facility Operating License No. NPF-14 and Amendment No.150 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 12, 1998.

These amendments relocate certain requirements related to fire protection from the TSs to the Updated Final Safety Analysis Report. The TS sections to be relocated are: 3/4.3.7.9, Fire Detection Instrumentation; 3/4.7.6, Fire Suppression Systems; 3/4.7.7, Fire Rated Assemblies; and 6.2.2e, Fire Brigade Staffing. The amendments also replace License Condition 2.C.(6) for Unit 1 and License Condition 2.C.(3) for Unit 2. These amendments are consistent with the guidance of NRC Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications."

During a recent fire protection functional inspection (reference NRC Inspection Report Nos. 50-387/97-201 and 50-388/97-201, dated May 13, 1998), the inspection team identified several issues associated with the post-fire safe shutdown capability and an approved exemption. These issues, which are identified as unresolved items in the inspection report, indicate that certain aspects of some of the safety evaluation reports cited in the fire protection license condition incorporated by this amendment may be inaccurate. The staff expects that any inaccuracies will be identified and resolved through the normal processes for addressing unresolved inspection items. (In your submittal of May 12, 1998, you acknowledged these issues and committed to resolve them.) If the resolution of these items results in the need for the staff to prepare a supplemental safety evaluation to address any inaccuracies, it may be necessary in the future to amend the fire protection license condition to include that supplement.

1/1

DFO1

9806250123

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly Federal Register Notice.

Sincerely,

/S/

Victor Nerses, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/50-388

Enclosures: 1. Amendment No. 177 to License No. NPF-14
2. Amendment No. 150 to License No. NPF-22
3. Safety Evaluation

cc w/encls: See next page

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A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly Federal Register Notice.

Sincerely,

Victor Nerses

Victor Nerses, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/50-388

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3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 177
License No. NPF-14

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

   A. The application for amendment filed by the Pennsylvania Power & Light Company, dated May 12, 1998, 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.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

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Amendment No. 177
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   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.

ATTACHMENT TO LICENSE AMENDMENT NO. 177

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

1. License

Remove	Insert
page 4a	page 4a

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE	INSERT
v	v
viii	viii
xiii	xiii
xv	xv
xxiv	xxiv
3/4 3-77	-----
3/4 3-78	-----
3/4 3-78A	-----
3/4 3-79	-----
3/4 3-80	-----
3/4 7-16	-----
3/4 7-17	-----
3/4 7-18	-----
3/4 7-19	-----
3/4 7-20	-----
3/4 7-21	-----
3/4 7-22	-----
3/4 7-23	-----
3/4 7-24	-----
3/4 7-25	-----
3/4 7-26	-----
3/4 7-27	-----
B 3/4 3-6	B 3/4 3-6
B 3/4 7-3	B 3/4 7-3
B 3/4 7-4	B 3/4 7-4
6-2	6-2
6-9	6-9
6-15	6-15

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. 177 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.

   In addition, the license is amended by changes to paragraph 2.C.(6) of Facility Operating License No. NPF-14 as follows:

   (6) PP&L shall implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Review Report for the facility and as approved in Fire Protection Program Section 9.5, SER, SSER#1, SSER#2, SSER#3, SSER#4, SSER#6, Safety Evaluation of Fire Protection Report dated August 9, 1989, Safety Evaluation of Revision 4 to the Fire Protection Review Report dated March 29, 1993, Safety Evaluation of Fire Protection Program Issues, Safe Shutdown Methodology and Analysis of Associated Circuits dated October 21, 1997, and Safety Evaluation of the licensee's Amendment No. 177, dated June 24, 1998, to relocate the Fire Protection Program subject to the following provision:

   > The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachments: 1. License page 4a*
2. Changes to the Technical Specifications

Date of Issuance: June 24, 1998

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*Pages 4a is attached, for convenience, for the composite license to reflect this change.

2.C.(6) PP&L shall implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Review Report for the facility and as approved in Fire Protection Program, Section 9.5, SER, SSER#1, SSER#2, SSER#3, SSER#4, SSER#6, Safety Evaluation of Fire Protection dated August 9, 1989, Safety Evaluation of Revision 4 to the Fire Protection Report dated March 29, 1993, Safety Evaluation of Fire Protection Program Issues, Safe Shutdown Methodology and Analysis of Associated Circuits dated October 21, 1997, and Safety Evaluation of the licensee's Amendment No. 177 , dated June 24, 1998 , to relocate the Fire Protection Program subject to the following provision:

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SECTION		PAGE
3/4.3 INSTRUMENTATION		
3/4.3.1	REACTOR PROTECTION SYSTEM INSTRUMENTATION	3/4 3-1
3/4.3.2	ISOLATION ACTUATION INSTRUMENTATION	3/4 3-9
3/4.3.3	EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION	3/4 3-27
3/4.3.4	RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION	
	ATWS Recirculation Pump Trip System Instrumentation	3/4 3-36
	End-of-Cycle Recirculation Pump Trip System Instrumentation	3/4 3-40
3/4.3.5	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION	3/4 3-46
3/4.3.6	CONTROL ROD BLOCK INSTRUMENTATION	3/4 3-51
3/4.3.7	MONITORING INSTRUMENTATION	
	Radiation Monitoring Instrumentation	3/4 3-57
	Seismic Monitoring Instrumentation	3/4 3-61
	Meteorological Monitoring Instrumentation	3/4 3-64
	Remote Shutdown Monitoring Instrumentation	3/4 3-67
	Accident Monitoring Instrumentation	3/4 3-70
	Source Range Monitors	3/4 3-74
	Traversing In-Core Probe System	3/4 3-75
	Chlorine Detection System	3/4 3-76
	DELETED	3/4 3-77 |
	Radioactive Liquid Effluent Monitoring Instrumentation	3/4 3-81
	Radioactive Gaseous Effluent Monitoring Instrumentation	3/4 3-86
	Loose-Part Detection System	3/4 3-93
3/4.3.8	TURBINE OVERSPEED PROTECTION SYSTEM	3/4 3-94
3/4.3.9	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION	3/4 3-95

SECTION		PAGE
3/4.7	PLANT SYSTEMS	
3/4.7.1	SERVICE WATER SYSTEMS	
	Residual Heat Removal Service Water System	3/4 7-1
	Emergency Service Water System	3/4 7-2
	Ultimate Heat Sink	3/4 7-4
3/4.7.2	CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM	3/4 7-5
3/4.7.3	REACTOR CORE ISOLATION COOLING SYSTEM	3/4 7-8
3/4.7.4	SNUBBERS	3/4 7-10
3/4.7.5	SEALED SOURCE CONTAMINATION	3/4 7-14
3/4.7.6	**DELETED**	3/4 7-16 |
3/4.7.7	**DELETED**	3/4 7-26 |
3/4.7.8	MAIN TURBINE BYPASS SYSTEM	3/4 7-28

BASES

SECTION **PAGE**

INSTRUMENTATION (Continued)

3/4.3.7 MONITORING INSTRUMENTATION

Radiation Monitoring Instrumentation ..... B 3/4 3-4
Seismic Monitoring Instrumentation ..... B 3/4 3-4
Meteorological Monitoring Instrumentation ..... B 3/4 3-5
Remote Shutdown Monitoring Instrumentation ..... B 3/4 3-5
Accident Monitoring Instrumentation ..... B 3/4 3-5
Source Range Monitors ..... B 3/4 3-5
Traversing In-Core Probe System ..... B 3/4 3-5
Chlorine Detection System ..... B 3/4 3-5
DELETED ..... B 3/4 3-6
Radioactive Liquid Effluent Instrumentation ..... B 3/4 3-6
Radioactive Gaseous Effluent Instrumentation ..... B 3/4 3-6
Loose-Part Detection System ..... B 3/4 3-6

3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM ..... B 3/4 3-7

3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION ..... B 3/4 3-7

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM ..... B 3/4 4-1

3/4.4.2 SAFETY/RELIEF VALVES ..... B 3/4 4-2

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

Leakage Detection Systems ..... B 3/4 4-2
Operational Leakage ..... B 3/4 4-2

3/4.4.4 CHEMISTRY ..... B 3/4 4-2

3/4.4.5 SPECIFIC ACTIVITY ..... B 3/4 4-3

3/4.4.6 PRESSURE/TEMPERATURE LIMITS ..... B 3/4 4-4

3/4.4.7 MAIN STEAM LINE ISOLATION VALVES ..... B 3/4 4-5

3/4.4.8 STRUCTURAL INTEGRITY ..... B 3/4 4-5

3/4.4.9 RESIDUAL HEAT REMOVAL ..... B 3/4 4-5

BASES

SECTION		PAGE
3/4.7	**PLANT SYSTEMS**	
3/4.7.1	SERVICE WATER SYSTEMS.	B 3/4 7-1
3/4.7.2	CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY	B 3/4 7-1
3/4.7.3	REACTOR CORE ISOLATION COOLING SYSTEM.	B 3/4 7-1
3/4.7.4	SNUBBERS.	B 3/4 7-2
3/4.7.5	SEALED SOURCE CONTAMINATION.	B 3/4 7-3
3/4.7.6	**DELETED**	B 3/4 7-3
3/4.7.7	**DELETED**	B 3/4 7-4
3/4.7.8	MAIN TURBINE BYPASS SYSTEM.	B 3/4 7-4
3/4.8	**ELECTRICAL POWER SYSTEMS**	
3/4.8.1, 3/4.8.2 and 3/4.8.3	A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS.	B 3/4 8-1
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES.	B 3/4 8-3
3/4.9	**REFUELING OPERATIONS**	
3/4.9.1	REACTOR MODE SWITCH.	B 3/4 9-1
3/4.9.2	INSTRUMENTATION.	B 3/4 9-1
3/4.9.3	CONTROL ROD POSITION.	B 3/4 9-1
3/4.9.4	DECAY TIME.	B 3/4 9-1
3/4.9.5	COMMUNICATIONS.	B 3/4 9-1
3/4.9.6	**DELETED**	
3/4.9.7	CRANE TRAVEL-SPENT FUEL STORAGE POOL.	B 3/4 9-2
3/4.9.8 and 3/4.9.9	WATER LEVEL - REACTOR VESSEL and WATER LEVEL - SPENT FUEL STORAGE POOL	B 3/4 9-2
3/4.9.10	CONTROL ROD REMOVAL	B 3/4 9-2
3/4.9.11	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION.	B 3/4 9-2

LIST OF TABLES (Continued)

TABLE		PAGE
4.3.7.4-1	REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-69
3.3.7.5-1	ACCIDENT MONITORING INSTRUMENTATION	3/4 3-71
4.3.7.5-1	ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-73
3.3.7.9-1	**DELETED**	3/4 3-78
3.3.7.10-1	RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION	3/4 3-82
4.3.7.10-1	RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-84
3.3.7.11-1	RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION	3/4 3-87
4.3.7.11-1	RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-90
3.3.9-1	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION	3/4 3-96
3.3.9-2	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SETPOINTS	3/4 3-97
4.3.9.1-1	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-98
3.4.3.2-1	REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES	3/4 4-9
3.4.4-1	REACTOR COOLANT SYSTEM CHEMISTRY LIMITS	3/4 4-12
4.4.5-1	PRIMARY COOLANT SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM	3/4 4-15
4.4.6.1.3-1	REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM–WITHDRAWAL SCHEDULE	3/4 4-20
3.6.3-1	PRIMARY CONTAINMENT ISOLATION VALVES	3/4 6-19
3.6.5.2-1	SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION DAMPERS	3/4 6-33
3.7.6.5-1	**DELETED**	3/4 7-24

FIRE DETECTION INSTRUMENTATION

3/4.3.7.9 **DELETED**

TABLE 3.3.7.9-1

FIRE DETECTION INSTRUMENTATION

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| 3/4.7.6 **DELETED**

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TABLE 3.7.6.5-1

FIRE HOSE STATIONS

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3/4.3.7.9 **DELETED**

3/4.3.7.10 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/ trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7.11 RADIOACTIVE GASES EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7.12 LOOSE-PART DETECTION SYSTEM

The OPERABILITY of the loose-part detection system ensures that sufficient capability is available to detect loose metallic parts in the primary system and avoid or mitigate damage to primary system components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors," May 1981.

3/4 7.4 SNUBBERS (continued)

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4 7.5 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources required leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. this limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values. Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism, i.e., sealed sources within radiation monitoring or boron measuring devices, are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

3/4 7.6 DELETED

3/4 7.7 DELETED

3/4 7.8 MAIN TURBINE BYPASS SYSTEM

The required OPERABILITY of the main turbine bypass system is consistent with the assumptions of the feedwater controller failure analysis in the cycle specific transient analysis.

UNIT STAFF (Continued)

c. A health physics technician* shall be onsite when fuel is in the reactor.

d. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.

e. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel.

Adequate shift coverage shall be maintained without routine heavy use of overtime. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

1. A individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.

2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.

3. A break of at least eight hours should be allowed between work periods, including shift turnover time.

4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Superintendent of Plant-Susquehanna or his deputy, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Superintendent of Plant-Susquehanna or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

f. The Operations Supervisor-Nuclear shall hold a Senior Reactor Operator license.

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* The health physics technician may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

RESPONSIBILITIES

6.5.1.6 The PORC shall be responsible for:

a. Review of all administrative procedures and changes thereto.

b. Review of all proposed tests and experiments that affect nuclear safety.

c. Review of all proposed changes to Appendix "A" Technical Specifications.

d. Review of all proposed changes or modifications to unit systems or equipment that affect nuclear safety.

e. Review of the safety evaluations for procedures and changes thereto completed under the provisions of 10 CFR 50.59.

f. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and to the Susquehanna Review Committee.

g. Review all REPORTABLE EVENTS.

h. Review of unit operations to detect potential nuclear safety hazards.

i. Performance of special reviews, investigations or analyses and reports thereon as requested by the Superintendent of Plant-Susquehanna or the Susquehanna Review Committee.

j. Review of the Security Plan and shall submit recommended changes to the Susquehanna Review Committee.

k. Review of the Emergency Plan and shall submit recommended changes to the Susquehanna Review Committee.

l. Review of every unplanned onsite release of radioactive material to the environs including the preparation and forwarding of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence to the Vice-President-Nuclear Operations and to the Chairman of the Susquehanna Review Committee.

m. Review of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and radwaste treatment systems.

n. Review of all proposed changes to the Technical Requirements Program and shall submit approved changes to the Susquehanna Review Committee.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Vice President-Nuclear Operations and the SRC shall be notified within 24 hours.

b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon unit components, systems or structures, and (3) corrective action taken to prevent recurrence.

c. The Safety Limit Violation Report shall be submitted to the Commission, the SRC and the Vice President-Nuclear Operations within 14 days of the violation.

d. Critical operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
b. Refueling operations.
c. Surveillance and test activities of safety related equipment.
d. Security Plan implementation.
e. Emergency Plan implementation.
f. Fire Protection Program implementation.
g. PROCESS CONTROL PROGRAM implementation.
h. Offsite Dose Calculation Manual implementation.
i. Quality Assurance Program for effluent and environmental monitoring, using the guidance of Regulatory Guide 4.15, February 1979.
j. Technical Requirements Program implementation.

6.8.2 Each procedure of 6.8.1(a) through (g) and (j) above, and changes thereto, shall be reviewed in accordance with Specifications 6.5.1.6 or 6.5.3, as appropriate, and approved by the General Manager - Susquehanna SES prior to implementation and shall be reviewed periodically as set forth in administrative procedures.

Each procedure of 6.8.1, above, and changes thereto, that is established to implement those portions of the radiological effluent and environmental monitoring programs and those portions of the ODCM that are the responsibility of Nuclear Technology shall be approved by the Manager-Nuclear Technology.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 150
License No. NPF-22

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

   A. The application for amendment filed by the Pennsylvania Power & Light Company, dated May 12, 1998, 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. 150 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.

   In addition, the license is amended by changes to paragraph 2.C.(3) of Facility Operating License No. NPF-22 as follows:

   (3) PP&L shall implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Review Report for the facility and as approved in Fire Protection Program Section 9.5, SER, SSER#1, SSER#2, SSER#3, SSER#4, SSER#6, Safety Evaluation of Fire Protection Report dated August 9, 1989, Safety Evaluation of Revision 4 to the Fire Protection Review Report dated March 29, 1993, Safety Evaluation of Fire Protection Program Issues, Safe Shutdown Methodology and Analysis of Associated Circuits dated October 21, 1997, and Safety Evaluation of the licensee's Amendment No. 150, dated June 24, 1998, to relocate the Fire Protection Program subject to the following provision:

   The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachments: 1. License pages* 4 and 4a
2. Changes to the Technical Specifications

Date of Issuance: June 24, 1998

*Pages 4 and 4a are attached, for convenience, for the composite license to reflect this change.

ATTACHMENT TO LICENSE AMENDMENT NO. 150

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

1. License

Remove	Insert
page 4	page 4
----	page 4a

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE	INSERT
v	v
viii	viii
xiii	xiii
xv	xv
xxv	xxv
xxvi	xxvi
3/4 7-77	-----
3/4 7-78	-----
3/4 7-79	-----
3/4 7-80	-----
3/4 3-81	-----
3/4 3-81a	-----
3/4 7-18	-----
3/4 7-19	-----
3/4 7-20	-----
3/4 7-21	-----
3/4 7-22	-----
3/4 7-23	-----
3/4 7-24	-----
3/4 7-25	-----
3/4 7-26	-----
3/4 7-27	-----
3/4 7-28	-----
3/4 7-29	-----
B 3/4 3-6	B 3/4 3-6
B 3/4 7-4	B 3/4 7-4
6-2	6-2
6-9	6-9
6-15	6-15

2.C.(3) PP&L shall implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Review Report for the facility and as approved in Fire Protection Program, Section 9.5, SER, SSER#1, SSER#2, SSER#3, SSER#4, SSER#6, Safety Evaluation of Fire Protection dated August 9, 1989, Safety Evaluation of Revision 4 to the Fire Protection Report dated March 29, 1993, Safety Evaluation of Fire Protection Program Issues, Safe Shutdown Methodology and Analysis of Associated Circuits dated October 21, 1997, and Safety Evaluation of the licensee's Amendment No. 150, dated June 24, 1998, to relocate the Fire Protection Program subject to the following provision:

> The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(4) Operation with Partial Feedwater Heating at End-of-Cycle (Section 15.1 SER, SSER #1)

PP&L shall not operate with partial feedwater heating for the purpose of extending the normal fuel cycle unless acceptable justification is provided to and approved by the NRC staff prior to such operation.

(5) Initial Test Program (Section 14, SER, SSER #1

PP&L shall conduct the post-fuel-loading initial test program described in Section 14 of the Final Safety Analysis Report, as amended without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

(a) Elimination of any safety-related test*;

(b) Modifications of objectives, test methods or acceptance criteria for any safety-related test;

(c) Performance of any safety-related test at a power level different from that stated in the licensees' Final Safety Analysis Report by more than 5 percent of rated power;

(d) Failure to satisfactorily complete the entire initial startup test program by the time core burnup equals 120 effective full power days;

(e) Deviation from initial test program administrative procedures or quality assurance controls described in the licensees' Final Safety Analysis Report; and

*Safety-related tests are those test which verify the design, construction, and operation of safety-related systems, structures, and equipment.

(g) Delays in the test program in excess of 30 days (14 days if power levels exceeds 50 percent) concurrent with power operation. If continued power operation is desired during a delay, the licensees shall provide justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.

SECTION PAGE

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION 3/4 3-1

3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION 3/4 3-9

3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION 3/4 3-27

3/4.3.4 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

ATWS Recirculation Pump Trip System Instrumentation 3/4 3-36

End-of-Cycle Recirculation Pump Trip System Instrumentation 3/4 3-40

3/4.3.5 REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION 3/4 3-46

3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION 3/4 3-51

3/4.3.7 MONITORING INSTRUMENTATION

Radiation Monitoring Instrumentation 3/4 3-57

Seismic Monitoring Instrumentation 3/4 3-61

Meteorological Monitoring Instrumentation 3/4 3-64

Remote Shutdown Monitoring Instrumentation 3/4 3-67

Accident Monitoring Instrumentation 3/4 3-70

Source Range Monitors 3/4 3-74

Traversing In-Core Probe System 3/4 3-75

Chlorine Detection System 3/4 3-76

DELETED 3/4 3-77

Radioactive Liquid Effluent Monitoring Instrumentation 3/4 3-82

Radioactive Gaseous Effluent Monitoring Instrumentation 3/4 3-87

Loose-Part Detection System 3/4 3-94

3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM 3/4 3-95

3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION 3/4 3-96

SECTION PAGE

3/4.7 PLANT SYSTEMS

3/4.7.1 SERVICE WATER SYSTEMS

Residual Heat Removal Service Water System 3/4 7-1

Emergency Service Water System 3/4 7-2

Ultimate Heat Sink 3/4 7-4

3/4.7.2 CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM 3/4 7-5

3/4.7.3 REACTOR CORE ISOLATION COOLING SYSTEM 3/4 7-8

3/4.7.4 SNUBBERS 3/4 7-10

3/4.7.5 SEALED SOURCE CONTAMINATION 3/4 7-16

3/4.7.6 **DELETED** **3/4 7-18**

3/4.7.7 **DELETED** **3/4 7-28**

3/4.7.8 MAIN TURBINE BYPASS SYSTEM 3/4 7-30

SECTION PAGE

INSTRUMENTATION (Continued)

3/4.3.7 MONITORING INSTRUMENTATION

Radiation Monitoring Instrumentation ..... B 3/4 3-4
Seismic Monitoring Instrumentation ..... B 3/4 3-4
Meteorological Monitoring Instrumentation ..... B 3/4 3-5
Remote Shutdown Monitoring Instrumentation ..... B 3/4 3-5
Accident Monitoring Instrumentation ..... B 3/4 3-5
Source Range Monitors ..... B 3/4 3-5
Traversing In-Core Probe System ..... B 3/4 3-5
Chlorine Detection System ..... B 3/4 3-5
DELETED ..... B 3/4 3-6
Radioactive Liquid Effluent Instrumentation ..... B 3/4 3-6
Radioactive Gaseous Effluent Instrumentation ..... B 3/4 3-6
Loose-Part Detection System ..... B 3/4 3-6

3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM ..... B 3/4 3-7

3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION ..... B 3/4 3-7

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM ..... B 3/4 4-1

3/4.4.2 SAFETY/RELIEF VALVES ..... B 3/4 4-2

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

Leakage Detection Systems ..... B 3/4 4-2
Operational Leakage ..... B 3/4 4-2

3/4.4.4 CHEMISTRY ..... B 3/4 4-2

3/4.4.5 SPECIFIC ACTIVITY ..... B 3/4 4-3

3/4.4.6 PRESSURE/TEMPERATURE LIMITS ..... B 3/4 4-4

3/4.4.7 MAIN STEAM LINE ISOLATION VALVES ..... B 3/4 4-5

3/4.4.8 STRUCTURAL INTEGRITY ..... B 3/4 4-5

3/4.4.9 RESIDUAL HEAT REMOVAL ..... B 3/4 4-5

BASES

SECTION		PAGE
3/4.7 PLANT SYSTEMS		
3/4.7.1	SERVICE WATER SYSTEMS	B 3/4 7-1
3/4.7.2	CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY	B 3/4 7-1
3/4.7.3	REACTOR CORE ISOLATION COOLING SYSTEM	B 3/4 7-1
3/4.7.4	SNUBBERS	B 3/4 7-2
3/4.7.5	SEALED SOURCE CONTAMINATION	B 3/4 7-3
3/4.7.6	**DELETED**	B 3/4 7-4
3/4.7.7	**DELETED**	B 3/4 7-4
3/4.7.8	MAIN TURBINE BYPASS SYSTEM	B 3/4 7-4
3/4.8 ELECTRICAL POWER SYSTEMS		
3/4.8.1, 3/4.8.2 and 3/4.8.3	A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS	B 3/4 8-1
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES	B 3/4 8-3
3/4.9 REFUELING OPERATIONS		
3/4.9.1	REACTOR MODE SWITCH	B 3/4 9-1
3/4.9.2	INSTRUMENTATION	B 3/4 9-1
3/4.9.3	CONTROL ROD POSITION	B 3/4 9-1
3/4.9.4	DECAY TIME	B 3/4 9-1
3/4.9.5	COMMUNICATIONS	B 3/4 9-1
3/4.9.6	**DELETED**	
3/4.9.7	CRANE TRAVEL-SPENT FUEL STORAGE POOL	B 3/4 9-2
3/4.9.8 and 3/4.9.9	WATER LEVEL - REACTOR VESSEL and WATER LEVEL - SPENT FUEL STORAGE POOL	B 3/4 9-2
3/4.9.10	CONTROL ROD REMOVAL	B 3/4 9-2
3/4.9.11	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	B 3/4 9-2

LIST OF TABLES (Continued)

TABLE		PAGE
4.3.4.2.1-1	END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM SURVEILLANCE REQUIREMENTS	3/4 3-45
3.3.5-1	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION	3/4 3-47
3.3.5-2	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS	3/4 3-49
4.3.5.1-1	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-50
3.3.6-1	CONTROL ROD BLOCK INSTRUMENTATION	3/4 3-52
3.3.6-2	CONTROL ROD BLOCK INSTRUMENTATION SETPOINTS	3/4 3-54
4.3.6-1	CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-55
3.3.7.1-1	RADIATION MONITORING INSTRUMENTATION	3/4 3-58
4.3.7.1-1	RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-60
3.3.7.2-1	SEISMIC MONITORING INSTRUMENTATION	3/4 3-62
4.3.7.2-1	SEISMIC MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-63
3.3.7.3-1	METEOROLOGICAL MONITORING INSTRUMENTATION	3/4 3-65
4.3.7.3-1	METEOROLOGICAL MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-66
3.3.7.4-1	REMOTE SHUTDOWN MONITORING INSTRUMENTATION	3/4 3-68
4.3.7.4-1	REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-69
3.3.7.5-1	ACCIDENT MONITORING INSTRUMENTATION	3/4 3-71
4.3.7.5-1	ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-73
3.3.7.9-1	**DELETED**	3.4 3-78
3.3.7.10-1	RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION	3/4 3-83

LIST OF TABLES (Continued)

TABLE		PAGE
4.3.7.10-1	RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-85
3.3.7.11-1	RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION	3/4 3-88
4.3.7.11-1	RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-91
3.3.9-1	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION	3/4 3-97
3.3.9-2	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SETPOINTS	3/4 3-98
4.3.9.1-1	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4 3-99
3.4.3.2-1	REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES	3/4 4-9
3.4.4-1	REACTOR COOLANT SYSTEM CHEMISTRY LIMITS	3/4 4-12
4.4.5-1	PRIMARY COOLANT SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM	3/4 4-15
4.4.6.1.3-1	REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM--WITHDRAWAL SCHEDULE	3/4 4-19
3.6.3-1	PRIMARY CONTAINMENT ISOLATION VALVES	3/4 6-19
3.6.5.2-1	SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION DAMPERS	3/4 6-35
3.7.6.5-1	**DELETED**	3/4 7-26
4.8.1.1.2-1	DIESEL GENERATOR TEST SCHEDULE	3/4 8-7
4.8.1.1.2-2	UNIT 1 AND UNIT 2 DIESEL GENERATOR LOADING TIMERS	3/4 8-8
4.8.2.1-1	BATTERY SURVEILLANCE REQUIREMENTS	3/4 8-15
3.8.4.1-1	PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES	3/4 8-26
3.8.4.2-1	MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION	3/4 8-31
3.11.1.1-1	MAXIMUM PERMISSIBLE CONCENTRATION OF DISSOLVED OR ENTRAINED NOBLE GASES RELEASED FROM THE SITE TO UNRESTRICTED AREAS IN LIQUID WASTE	3/4 11-2

3/4.3.7.9 **DELETED**

TABLE 3.3.7.9-1

FIRE DETECTION INSTRUMENTATION

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TABLE 3.7.6.5-1

FIRE HOSE STATIONS

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3/4.3.7.10 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7.11 RADIOACTIVE GASEOUS EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7.12 LOOSE-PART DETECTION SYSTEM

The OPERABILITY of the loose-part detection system ensures that sufficient capability is available to detect loose metallic parts in the primary system and avoid or mitigate damage to primary system components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors," May 1981.

3/4 7.6 DELETED

3/4 7.7 DELETED

3/4 7.8 MAIN TURBINE BYPASS SYSTEM

The required OPERABILITY of the main turbine bypass system is consistent with the assumptions of the feedwater controller failure analysis in the cycle specific transient analysis.

UNIT STAFF (Continued)

c. A health physics technician* shall be onsite when fuel is in the reactor.

d. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.

e. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel.

Adequate shift coverage shall be maintained without routine heavy use of overtime. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

1. A individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.

2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.

3. A break of at least eight hours should be allowed between work periods, including shift turnover time.

4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Superintendent of Plant-Susquehanna or his deputy or higher levels of management, in accordance with established procedures and with documentation of the bases for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Superintendent of Plant-Susquehanna or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

f. The Operations Supervisor - Nuclear shall hold a Senior Reactor Operator License.

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* The health physics technician may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

RESPONSIBILITIES

6.5.1.6 The PORC shall be responsible for:

a. Review of all administrative procedures and changes thereto.

b. Review of all proposed tests and experiments that affect nuclear safety.

c. Review of all proposed changes to Appendix "A" Technical Specifications.

d. Review of all proposed changes or modifications to unit systems or equipment that affect nuclear safety.

e. Review of the safety evaluations for procedures and changes thereto completed under the provisions of 10 CFR 50.59.

f. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and to the Susquehanna Review Committee.

g. Review all REPORTABLE EVENTS.

h. Review of unit operations to detect potential nuclear safety hazards.

i. Performance of special reviews, investigations or analyses and reports thereon as requested by the Superintendent of Plant-Susquehanna or the Susquehanna Review Committee.

j. Review of the Security Plan and shall submit recommended changes to the Susquehanna Review Committee.

k. Review of the Emergency Plan and shall submit recommended changes to the Susquehanna Review Committee.

l. Review of every unplanned onsite release of radioactive material to the environs including the preparation and forwarding of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence to the Vice-President-Nuclear Operations and to the Chairman of the Susquehanna Review Committee.

m. Review of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and radwaste treatment systems.

n. Review of all proposed changes to the Technical Requirements Program and shall submit approved changes to the Susquehanna Review Committee.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Vice President-Nuclear Operations and the SRC shall be notified within 24 hours.

b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PORC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon unit components, systems or structures, and (3) corrective action taken to prevent recurrence.

c. The Safety Limit Violation Report shall be submitted to the Commission, the SRC and the Vice President-Nuclear Operations within 14 days of the violation.

d. Critical operation of the unit shall not be resumed until authorized by the Commission.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
b. Refueling operations.
c. Surveillance and test activities of safety related equipment.
d. Security Plan implementation.
e. Emergency Plan implementation.
f. Fire Protection Program implementation.
g. PROCESS CONTROL PROGRAM implementation.
h. Offsite Dose Calculation Manual implementation.
i. Quality Assurance Program for effluent and environmental monitoring, using the guidance of Regulatory Guide 4.15, February 1979.
j. Technical Requirements Program implementation.

6.8.2 Each procedure of 6.8.1(a) through (g) and (j) above, and changes thereto, shall be reviewed in accordance with Specifications 6.5.1.6 or 6.5.3, as appropriate, and approved by the General Manager - Susquehanna SES prior to implementation and shall be reviewed periodically as set forth in administrative procedures.

Each procedure of 6.8.1, above, and changes thereto, that is established to implement those portions of the radiological effluent and environmental monitoring programs and those portions of the ODCM that are the responsibility of Nuclear Technology shall be approved by the Manager-Nuclear Technology.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 177 TO FACILITY OPERATING LICENSE NO. NPF-14

AMENDMENT NO. 150 TO FACILITY OPERATING LICENSE NO. NPF-22

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 388

1.0 INTRODUCTION

Section 50.48, "Fire protection," of Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50) requires that each operating nuclear power plant have a fire protection plan that satisfies General Design Criterion 3 (GDC 3), "Fire protection," of Appendix A to 10 CFR Part 50. The fire protection plan must describe the overall fire protection program for the facility, outline the plans for fire protection, fire detection, and fire suppression capability, and limitations of fire damage. The program must also describe specific features necessary to implement the program such as administrative controls and personnel requirements for fire prevention and manual fire suppression activities, automatic and manually operated fire detection and suppression systems, and the means to limit fire damage to structures, systems, or components important to safety so that the capability to safely shut down the plant is ensured.

By letter dated May 12, 1998, the Pennsylvania Power and Light Company (the licensee) requested amendments to the Technical Specifications (TSs) appended to Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. The proposed amendments relocate certain fire protection requirements from the TSs to the Fire Protection Program in accordance with the guidance provided in Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications." Specifically, the licensee proposed to relocate the fire protection requirements of TS Section 3/4.3.7.9 (Monitoring Instrumentation - Fire Detection Instrumentation), TS Section 3/4.7.6 (Plant Systems - Fire Suppression Systems), TS Section 3/4.7.7 (Plant Systems - Fire Rated Assemblies), and TS Section 6.2.2e (Fire Brigade Staffing), from the TSs to the Fire Protection Program (consisting of the Updated Final Safety Analysis Report (UFSAR), station procedures, and SSES Technical Requirements Manual). In addition, the licensee proposed to revise the operating licenses to include the NRC's standard fire protection license condition as specified in GL 86-10.

GL 86-10 and GL 88-12 referred to removing fire protection requirements from the TSs. License amendments that relocate fire protection requirements to the Final Safety Analysis Report (FSAR) in accordance with GL 86-10 and GL 88-12 do not revise the requirements for fire protection operability, testing, or inspections. Such amendments simply replace the fire protection TSs sections with the standard fire protection license condition. The license condition implements and maintains the NRC-approved fire protection program, including the fire protection requirements previously specified in the TSs, in accordance with 10 CFR 50.48. Therefore, such amendments, include the ones proposed by the licensee, are administrative in nature and have no effect on public health and safety.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act (Act) requires applicants for nuclear power plant operating licenses to state TSs to be included as part of the license. The Commission's regulatory requirements related to the content of TSs are set forth in 10 CFR 50.36. That regulation requires that the TSs include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TSs.

The Commission has provided guidance for the contents of TSs in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" (Final Policy Statement), 58 FR 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies Section 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TSs to licensee-controlled documents, consistent with the standard enunciated in Portland General Electric Co. (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety." The criteria set forth in the Final Policy Statement have been incorporated into 10 CFR 50.36 (60 FR 36953).

Following the fire at the Browns Ferry Nuclear Power Plant on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the fire protection programs for all power reactor facilities. Because of the extensive modification of fire protection programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by GL 86-10 to incorporate their final NRC-approved fire protection programs in their FSARs. In this manner, the fire protection program, including the systems, certain administrative and technical controls, the organization, and other plant features associated with fire protection, would have a status consistent with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition, requiring compliance with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of the fire protection requirements. Finally, the

Commission stated that, with the required actions, licensees may request an amendment to delete the fire protection TSs that would now be unnecessary. Subsequently, the NRC issued GL 88-12 to give guidance for the preparation of the license amendment request to implement GL 86-10.

3.0 PROPOSED CHANGES

The specific changes proposed by the licensee are as follows:

1. Replace License Condition 2.C.(6) for Unit 1 and License Condition 2.C.(3) for Unit 2 with the standard fire protection license condition as stated in GL 86-10.

2. Delete TS 3/4.3.7.9 (MONITORING INSTRUMENTATION - FIRE DETECTION INSTRUMENTATION) and relocate the limiting conditions for operation (LCOs), surveillance requirements (SRs), and the associated bases to the licensee controlled SSES Technical Requirements Manual (TRM). The TRM will be incorporated by reference into the SSES UFSAR.

3. Delete TS 3/4.7.6 (PLANT SYSTEMS - FIRE SUPPRESSION SYSTEMS) and relocate the LCOs, SRs, and the associated bases to the TRM which will be incorporated by reference into the SSES UFSAR.

4. Delete TS 3/4.7.7 (PLANT SYSTEMS- FIRE RATED ASSEMBLIES) and relocate the LCOs, SRs, and the associated bases to the TRM which will be incorporated by reference into the SSES UFSAR.

5. Delete TS 6.2.2e fire brigade staffing, and relocate the requirements to the TRM which will be incorporated by reference into the SSES UFSAR. Also, delete the words "and Fire Brigade composition" from the footnote (*). In addition, re-letter TS 6.2.2f and g to TS 6.2.2e and f, respectively, to reflect the deletion of TS 6.2.2.e.

4.0 EVALUATION

The NRC staff reviewed the license amendment request against the guidance provided in GLs 86-10 and 88-12. GL 86-10 stated that licensees should incorporate the NRC-approved fire protection program in its UFSAR and specified a standard fire protection license condition that licensees may use to replace current license conditions once the fire protection program is incorporated into the UFSAR.

GL 88-12 addressed the elements a licensee should include in a license amendment request to remove fire protection requirements from the plant TSs. These elements are (1) the NRC-approved fire protection program must be incorporated into the UFSAR; (2) the LCOs and SRs associated with fire detection systems, fire suppression systems, fire barriers, and the administrative controls that address fire brigade staffing would be relocated from the TSs (the existing administrative controls associated with fire protection audits and specifications related to the capability for safe shutdown following a fire would be retained); (3) all operational conditions, remedial actions, and test requirements recently included in the TSs for these systems, as well as the fire brigade staffing requirements, shall be incorporated into the fire protection program;

(4) the standard fire protection license condition specified in GL 86-10 must be included in the facility operating license; (5) the Administrative Controls section of the TSs shall provide that the onsite review group shall be given responsibility for the review of the program and implementing procedures and for the submittal of recommended changes to the Offsite or Corporate Review Group; and (6) the Administrative Controls section of the TSs shall provide that implementation of the program shall be added to the list of elements for which written procedures shall be established, implemented, and maintained. The licensee has met each of these elements as discussed below.

1. SSES's Fire Protection System is presented in UFSAR Section 9.5.1 by reference to the licensee's Fire Protection Review Report (FPRR) which includes the Fire Hazards Analysis and the Safe Shutdown Analysis. Therefore, the licensee has satisfied Element 1 of GL 88-12.

2. In its submittal dated May 12, 1998, the licensee proposed to incorporate the current TSs LCOs and SRs for the fire detection system, fire suppression systems, fire barriers, and the administrative controls that address fire brigade staffing into the SSES TRM document. The licensee also stated that the above mentioned TS requirements were included in the Fire Protection Program by reference to the TRM. Therefore, the licensee has satisfied Elements 2 and 3 of GL 88-12.

3. The licensee proposed to incorporate the standard fire protection license condition specified in GL 86-10 for SSES, Units 1 and 2. The licensee's proposed license conditions identified all of the staff's safety evaluations of the approved Fire Protection Program, except the safety evaluation that evaluates this amendment. Therefore, for completeness, the staff has also referenced this safety evaluation in the license conditions for SSES, Units 1 and 2. The licensee has, therefore, satisfied Element 4 of GL 88-12.

4. The audit requirements for the Fire Protection Program (TS 6.5.2.8) are being retained in the TSs. In addition, the licensee has proposed to incorporate in the TSs that the Plant Operations Review (onsite review group) Committee is responsible for reviewing the fire protection programmatic controls and implementing procedures, and that submittal of recommended changes is made to the corporate Susquehanna Review Committee. Therefore, the licensee has satisfied Element 5 of GL 88-12.

5. The TSs currently provide that written procedures shall be established, implemented, and maintained for implementation of the Fire Protection Program (TS 6.8.1f). In its submittal dated May 12, 1998, the licensee proposed to incorporate into the TSs a requirement (TS 6.8.1j) that written procedures be established, implemented, and maintained for implementation of the Technical Requirements Program. Therefore, the licensee has satisfied Element 6 of GL 88-12.

In summary, the licensee has proposed to incorporate the existing TSs fire protection requirements as stated above into the fire protection program which is, by reference, incorporated into the UFSAR. This conforms to staff guidance in GL 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications," for removing unnecessary fire protection TSs in four major areas: fire detection systems, fire suppression systems, file barriers, and fire brigade staffing requirements. In addition, incorporating these requirements into the UFSAR is consistent with NUREG-1431, "Standard Technical Specifications, Westinghouse Plants and 10 CFR 50.36, as amended,

because these TSs do not impact reactor operations, do not identify a parameter which is an initial condition assumption for a design-basis accident or transient, do not identify a significant abnormal degradation of the reactor coolant pressure boundary, and do not provide any mitigation of a design-basis event.

The fire protection plan required by 10 CFR 50.48, as implemented and maintained by the fire protection license condition, provides reasonable assurance that fires will not give rise to an immediate threat to public health and safety. Although there are aspects of the fire detection and mitigation functions that have been determined to be risk significant, such that Criterion 4 of 10 CFR 50.36 would otherwise seem to apply, the minimum requirements for those functions were established in General Design Criterion 3 and 10 CFR 50.48, and further controls are not necessary since the licensee must comply with these minimum requirements regardless of whether they are restated in the TSs or not.

The licensee's fire protection program is required by 10 CFR 50.48, and any changes to that program are governed by 10 CFR 50.48 and license conditions 2.C.(6) (Unit 1) and 2.C.(3) (Unit 2). Therefore, the requirements relocated to the UFSAR may be controlled in accordance with 10 CFR 50.59.

These relocated requirements relating to fire protection features are not required to be in the TSs under 10 CFR 50.36 or other regulations, or by Section 182a of the Atomic Energy Act, and are not required to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to public health and safety. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.48 and 10 CFR 50.59 to address future changes to these requirements. Accordingly, the staff has concluded that these requirements may be relocated from the TSs to the licensee's UFSAR, and that the proposed amendments are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the surveillance requirements. The NRC staff has determined that the 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 the amendments involve no significant hazards consideration, and there has been no public comment on such finding (63 FR 28010). The amendments also relate to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendments meet eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9)and (c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Date: June 24, 1998