MAR 2 3 1984

Docket No.: 50-387

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

Dear Mr. Curtis:

Subject: Amendment No. 21 to Facility Operating License No. NPF-14 - Susquehanna Steam Electric Station, Unit 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. NPF-14 for the Susquehanna Steam Electric Station, Unit 1. The amendment is in response to your letter dated December 19, 1983, January 5, 1984, January 21, 1984 and February 23, 1984. This amendment changes Technical Specifications 3.6.5.1 and 4.6.5.1 to allow a revised surveillance test of the Standby Gas Treatment Systems (SGTS) to include either three zones when both Units 1 and 2 are in communication with the SGTS or two zones when Unit 2 is shutdown and isolated from the SGTS.

A copy of the related safety evaluation supporting Amendment No. 21 to Facility Operating License NPF-14 is enclosed.

Sincerely,

Original signed by

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

Enclosures:
1. Amendment No. 21 to NPF-14
2. Safety Evaluation

cc w/ enclosures:
See next page

DL:LB#2/PM	DL:LB#2/LA	DL:LB#2/BC	OELD	DL:AD/L
RLPerch:pt	EGHylton	ASchwencer		TMNovak
3/19/84	3/19/84	3/19/84	3/22/84	3/23/84

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Susquehanna

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Attn: Coordinator, State Clearinghouse
P O. Box 1323
Harrisburg, Pennsylvania 17120

Mr. Bruce Thomas, President
Board of Supervisors
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U. S. Environmental Protection Agency
Attn: EIS Coordinator
Region III Office
Curtis Building
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

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

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

Amendment No. 21
License No. NPF-14

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

   A. The application for amendment filed by the Pennsylvania Power and Light Company, dated December 19, 1983, January 5, 1984, January 21, 1984, and February 23, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-14 is hereby amended to read as follows:

   (2) Technical Specifications and Environmental Protection Plan

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 21 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

[redacted]

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: MAR 2 3 1984

DL:LB#2/RA	DL:LB#2/LA	DL:LB#2/BC	OELD	DL:AD/L
RLPerch:pt	EGHylton	ASchwencer	[redacted]	TMNovak
3/19/84	3/19/84	3/19/84	3/22/84	3/23/84

ATTACHMENT TO LICENSE AMENDMENT NO. 21
FACILITY OPERATING LICENSE NO. NPF-14
DOCKET NO. 50-387

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

REMOVE	INSERT
3/4 6-31	3/4 6-31
3/4 6-32	3/4 6-31a
	3/4 6-31b
	3/4 6-32

3/4.6.5 SECONDARY CONTAINMENT

SECONDARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.5.1 SECONDARY CONTAINMENT INTEGRITY** shall be maintained.

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

ACTION:

Without SECONDARY CONTAINMENT INTEGRITY:

a. In OPERATIONAL CONDITION 1, 2, or 3, restore SECONDARY CONTAINMENT INTEGRITY within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. In Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS* and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.1 SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

a. Verifying at least once per 24 hours that the pressure within the secondary containment is less than or equal to 0.25 inch of vacuum water gauge.

b. Verifying at least once per 31 days that:

1a. When the railroad bay door (No. 101) is closed; all Zone I and III hatches, removable walls, dampers, and doors connected to the railroad access bay are closed,## or

i) Only Zone I removable walls and/or doors are open to the railroad access shaft,## or

ii) Only Zone III hatches and/or dampers are open to the railroad access shaft.##

1b. When the railroad bay door (No. 101) is open; all Zone I and III hatches, removable walls, dampers, and doors connected to the railroad access bay are closed.

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

**Secondary Containment consists of Zone I, Zone II and Zone III or Zone I and Zone III when Zone II is isolated from Zone I and Zone III.

##Personnel ingress and egress through doors within the secondary containment is not prohibited by this specification.

SURVEILLANCE REQUIREMENTS (Continued)

2a. At least one door in each access to the secondary containment zones is closed.

2b. At least one door in each access between secondary containment zones is closed.*

3. All secondary containment penetrations** not capable of being closed by OPERABLE secondary containment automatic isolation dampers and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic dampers secured in position.

4. The truck bay hatch is closed.

5. The truck bay door (No. 102) is closed unless Zone II is isolated from Zones I and III.

c. At least once per 18 months:

1. For three zone operation with Zone II OPERABLE:

a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 15 seconds, and

b. Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 2885 cfm from Zone I and Zone III, and

c. Verifying by calculation that one standby gas treatment subsystem will maintain greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III, or

2. For three zone operation:

a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I, Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 92 seconds, and

*Personnel ingress and egress through doors within the secondary containment is not prohibited by this specification.

**Penetration between secondary containment zones, penetrations to no-zones, and penetrations to the outside atmosphere.

SURVEILLANCE REQUIREMENTS (Continued)

b. Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III, or

3. For two zone operation with Unit 2 shutdown and Zone II isolated from Zone I and Zone III:

a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 83 seconds, and

b. Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 2885 cfm from Zone I and Zone III.

d. At least once per 60 months:

1. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I, Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 92 seconds, and

2. Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III.

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

LIMITING CONDITION FOR OPERATION

3.6.5.2 The secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2-1.

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

ACTION:

With one or more of the secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 inoperable, maintain at least one isolation damper OPERABLE in each affected penetration that is open and within 8 hours either:

a. Restore the inoperable damper to OPERABLE status, or

b. Isolate each affected penetration by use of at least one deactivated damper secured in the isolation position, or

c. Isolate each affected penetration by use of at least one closed manual valve or blind flange.

Otherwise, in OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Otherwise, in Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.2 Each secondary containment ventilation system automatic isolation damper shown in Table 3.6.5.2-1 shall be demonstrated OPERABLE:

a. Prior to returning the damper to service after maintenance, repair or replacement work is performed on the damper or its associated actuator, control or power circuit by cycling the damper through at least one complete cycle of full travel and verifying the specified isolation time.

b. During COLD SHUTDOWN or REFUELING at least once per 18 months by verifying that on a containment isolation test signal each isolation damper actuates to its isolation position.

c. At least once per 92 days by verifying the isolation time to be within its limit.

*For Zone III dampers when irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

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

SAFETY EVALUATION
AMENDMENT NO. 21 TO NPF-14
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-387

Introduction

The licensee in letters dated December 19, 1983, January 5, 1984, January 21, 1984, and February 23, 1984, proposed changes to the Technical Specifications of the operating license for Susquehanna Steam Electric Station, Unit 1 to allow revised surveillance test of the Standby Gas Treatment Systems (SGTS) to include either three zones when both Units 1 and 2 are in communication with the SGTS or two zones when Unit 2 is shutdown and isolated from the SGTS. Changes to the SGTS surveillance procedures are necessary for the operation of the SGTS to support two unit operation.

Evaluation

Under normal operation, the secondary containment zones (Zone I, Zone II and Zone III) are not interconnected; however, following the onset of a LOCA and assuming the loss of offsite power, the three zones will be interconnected. By letter dated December 19, 1983, PP&L proposed modifications to the secondary containment drawdown time requirements for both two zone and three zone operation. Additional clarification of the surveillance procedures necessary for the operation of the SGTS was provided in a letter dated January 5, 1984. In each case, the as-built design exceeded the stated FSAR and SER criteria of providing 0.25 inches of vacuum water gauge within 60 seconds following the accident.

By letter dated January 21, 1984, the licensee proposed additional changes to the design and operation of the SGTS which included having both engineered safety feature trains of the SGTS start upon receipt of an actuation signal. For accidents involving a loss-of-offsite power, these changes limit the (worst case) peak pressure in the secondary containment to approximately 0.125 inches of vacuum water gauge and result in a secondary containment pressure of approximately 0.20 inches of vacuum water gauge within 60 seconds following the postulated loss-of-coolant. The maximum time for the secondary containment to reach a negative 0.25 inches vacuum water gauge is approximately 150 seconds for three zone operation and 135 seconds for two zone operation. The licensee provided their calculations of LOCA dose with a 180-second secondary containment drawdown time. The staff reviewed the licensee's analysis and found it to be acceptable.

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On February 22, 1984, representatives of PP&L met with the NRC staff to discuss the proposed SGTS technical specification changes. Whenever a two zone test is performed for each unit (Zones I and III or Zones II and III), a separate test of Zone III will be performed within a period not to exceed 18 months from completion of either of the two-zone tests. The results from these tests (Zones I and III, Zones II and III, and Zone III tests) will be used to analytically verify that one SGTS will maintain the 0.25 inches vacuum water gauge in Zones I, II, and III at a flow rate of 4000 cfm. The revised technical specification drawdown times for the surveillance tests are based on deleting the 30 second time delay in starting the redundant SGTS fan and does not include the 10 second time delay associated with loading the SGTS on the diesel. The revised drawdown times are 83 seconds for two-zone testing for the case of Zone II isolated from Zones I and III, and Unit 2 is shutdown; 15 seconds for two-zone testing for the case of Zone II is operable but isolated from Zones I and III; and 92 seconds for three-zone testing. The NRC staff requested PP&L provide clarification of the conditions under which the proposed surveillance test options would be performed. The staff also requested PP&L to perform the three-zone test at least every 60 months. PP&L agreed to these changes and formally revised the SGTS technical specification change request in a letter dated February 23, 1984.

The matters contained in the February 23, 1984 submittal are considered by the NRC staff to not substantially change the proposed SGTS technical specification changes contained in the previous PP&L submittals dated December 19, 1983, January 5, 1984, and January 21, 1984. One matter provides clarification, and the other makes performance of the three-zone surveillance test a requirement, rather than a test option as originally proposed in the application dated January 21, 1984.

The NRC staff has reviewed the licensee's submittals and concludes the proposed technical specifications to the SGTS are acceptable. The results and conclusions presented in previous safety evaluations are valid for the proposed technical specifications when combined with the licensee's design modifications. While the secondary containment will not reach 0.25 inches of vacuum water gauge within 60 seconds under LOCA conditions (as described in the Standard Review Plan (SRP) Section 6.5.3), the NRC staff concludes that the modified SGTS design meets the intent of the referenced SRP section and is acceptable. This conclusion is based upon 1) the peak secondary containment pressure will be less than 0.125 inches of vacuum water gauge, and 2) the secondary containment pressure at 60 seconds following the postulated LOCA is between 0.20 and 0.25 inches of vacuum water gauge for the worst case (i.e., three zone drawdown). The staff also concluded that the proposed technical specification changes will not degrade the performance of the SGTS filters.

Environmental Consideration

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

Conclusion

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: MAR 23 1984

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3/16/84

OPERATING REACTORS/LICENSING BRANCH NO. __

AMENDMENT ROUTE SLIP

1. E. Hylton, LA - concurrence

2. R. Perch RLP, Project Manager - concurrence

3. A. Schwencer 3/19, Branch Chief - ~~concurrence~~ (OELD review is/is not requested for the enclosed Safety Evaluation) _____

4. OELD - concurrence

5. , - signature

6. , Assistant Director - approval

7. , Branch Chief - signature

8. , LA - assign Amendment No. and date

9. - dispatch

Letter to: N. W. Curtis Amendment No(s). 21

Subject: Amendment to Standby Gas Treatment System Technical Specifications for Susquehanna, Unit 1

SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION INFORMATION

Initial Determination: Significant Hazards Consideration
No Significant Hazards Consideration (Circle one)

Notice Period 30 Days. Comment period expires 3/16/84 (date)
If less than 30 days or hearing request received: Final No Significant Hazards Consideration Determination enclosed: Yes ___ Emergency or Exigency _____

Input for Monthly FR Notice Enclosed: Yes X No ___

Date Consulted with State: 3/15/84 Comments: Yes _____ No X

Date checked with SECY for public comments or Petitions for Leave to Intervene: _____
3/16/84 Petitions filed: Yes _____ No X
Comments filed: Yes _____ No X

Remarks _____

, Assistant Director, appr- 843507

FROM: R.L. PERCH EX -> Mail Stop 144