

March 28, 1988

Docket Nos. 50-387/388

Mr. Harold W. Keiser
Vice President
Nuclear Operations
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

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Dear Mr. Keiser:

SUBJECT: A NEW ACTION STATEMENT FOR STANDBY GAS TREATMENT SYSTEM
(TAC NOS. 65165 AND 65166)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

The Commission has issued the enclosed Amendment No. 76 to Facility Operating License No. NPF-14 and Amendment No. 41 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 April 13, 1987.

These amendments revise the Action Statement for the Standby Gas Treatment System.

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/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

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PDR ADOCK 05000387
P PDR

Enclosures:

1. Amendment No. 76 to License No. NPF-14
2. Amendment No. 41 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

Discussed with subject to resolution of question raised in note.

*EP/B-C
JCnaig
3/27/88*

*PDI-2/D
WButler
3/27/88*

*PDI-2/PM
MThadani
3/11/88*

*PDI-2/D
WButler
3/27/88*

*OGC
S H Lewis
3/11/88*

Verbal concurrence of staff on 3/23/88 MC2

Subject to resolution of question raised in note.



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

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Docket Nos. 50-387/388

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Vice President
Nuclear Operations
Pennsylvania Power and Light Company
2 North Ninth Street
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RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

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Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 76 to License No. NPF-14
2. Amendment No. 41 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. Harold W. Keiser
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station
Units 1 & 2

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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. 76
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated April 13, 1987 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. 76 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: March 28, 1988

PDI-2/D
MO'Brien
10/22/87

MT
PDI-2/PM
MThadani
3/3/88

OGC *HL*
H Lewis
3/14/88

PDI-2/D
WButler
3/23/88 *WB*

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

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 28, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 76

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 page is identified by Amendment number and contains vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE

3/4 6-33
3/4 6-34

INSERT

3/4 6-33*
3/4 6-34

TABLE 3.6.5.2-1

SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION DAMPERS

<u>DAMPER FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
1. Reactor Building Zone I Supply System Dampers (HD-17586 A&B)	7.5
2. Reactor Building Zone I Filtered Exhaust System Dampers (HD-17524 A&B)	5.0
3. Reactor Building Zone I Unfiltered Exhaust System Dampers (HD-17576 A&B)	3.0
4. Reactor Building Zone II Supply System Dampers (HD-27586 A&B)	7.5
5. Reactor Building Zone II Filtered Exhaust System Dampers (HD-27524 A&B)	5.0
6. Reactor Building Zone II Unfiltered Exhaust System Dampers (HD-27576 A&B)	3.0
7. Reactor Building Zone III Supply System Dampers (HD-17564 A&B)	14.0
8. Reactor Building Zone III Filtered Exhaust System Dampers (HD-17514 A&B)	6.5
9. Reactor Building Zone III Unfiltered Exhaust System Dampers (HD-17502 A&B)	6.0
10. Reactor Building Zone III Supply System Dampers (HD-27564 A&B)	14.0
11. Reactor Building Zone III Filtered Exhaust System Dampers (HD-27514 A&B)	6.5
12. Reactor Building Zone III Unfiltered Exhaust System Dampers (HD-27502 A&B)	6.0

CONTAINMENT SYSTEMS

STANDBY GAS TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.3 Two independent standby gas treatment subsystems shall be OPERABLE.

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

ACTION:

- a. With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or:
 1. 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.
 2. 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.
- b. With both standby gas treatment subsystems inoperable:
 1. In OPERATIONAL CONDITION 1, 2, or 3, restore at least one inoperable subsystem to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 2. 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

4.6.5.3 Each standby gas treatment subsystem shall be demonstrated OPERABLE:

- a. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates for at least 10 hours with the heaters OPERABLE.

*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

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. 41
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated April 13, 1987 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. 41 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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: March 28, 1988

PDI-2/DA
MOBrien
10/22/87

ME
PDI-2/PM
MThadani
3/3/88

OGC *WZ*
S H Lewis
3/14/88

PDI-2/D
WButler
3/23/88 *WB*

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

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 28, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 41

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 page is identified by Amendment number and contains vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE

3/4 6-35
3/4 6-36

INSERT

3/4 6-35*
3/4 6-36

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CONTAINMENT SYSTEMS -

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*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 BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. NPF-14 AND

AMENDMENT NO. 41 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 April 13, 1987, Pennsylvania Power & 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 revise an action statement for the Standby Gas Treatment System (SGTS) in Technical Specifications 3.6.5.3.b. The change would allow four hours to restore at least one of two inoperable SGTS subsystems to operable status. The current Specification 3.6.5.3 invokes the provisions of Specification 3.0.3, which allows only one hour to restore one of two SGTS subsystems to operable status.

2.0 EVALUATION

The staff evaluation was focused on the functional requirements of the Secondary Containment integrity and the SGTS capability to mitigate the offsite doses. The evaluation also considered the fact that neither the Secondary Containment nor the SGTS system alone can ensure the off-site release to be equivalent to that when both systems operate together. Finally, consideration was given to the probability of an increase in accident consequences and any decrease in margin of safety as a result of the proposed changes.

The licensee proposes to change the SGTS restoration period from current value of one hour to revised value of four hours when both trains of the SGTS become inoperable. Technical Specification 3.6.5.3 implicitly requires that upon losing both trains of SGTS, Specification 3.0.3 be invoked and within one hour the operators are to proceed to shutdown the reactor. Whereas, Specification 3.6.5.1 requires operability of both SGTS trains to maintain the Secondary Containment integrity and allows four hours to restore the Secondary Containment integrity prior to proceeding to shutdown the reactor should both SGTS subsystems become inoperable. The one hour grace period of specification 3.0.3 for the SGTS invoked by the Technical Specification Limiting Conditions for Operation (LCO) 3.6.5.3 is the most restrictive action statement among features and systems interfacing with the Secondary Containment or SGTS.

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The licensee states that invoking a one hour LCO for SGTS operability is inconsistent with other Technical Specifications' LCOs. Technical Specifications 1.37 and 3.6.5.1 state that Secondary Containment integrity exists when both trains of the SGTS are operable pursuant to the Specification 3.6.5.3. Should the SGTS fail to meet the operability requirements, Secondary Containment integrity requirements under Specification 3.6.5.1 are not met. The LCO action statement allows four hours to recover Secondary Containment integrity. However, Specification 3.6.5.3 implies an LCO action statement of one hour to recover at least one train of the SGTS. Therefore, should both trains of the SGTS become inoperable, both LCO action requirements of one hour and four hours, will be applicable at the same time.

During a design basis event, the Secondary Containment integrity has to be maintained in parallel with the SGTS operability in order to provide the most effective control of off-site releases. Should the Secondary Containment fail to maintain its integrity (e.g. due to a failure of a blowout panel) the off-site releases would be dictated by a leak rather than failure of the SGTS. Since a 4 hour action has been accepted for the breach of the Secondary Containment integrity, there is no technical basis to impose a more restrictive (1 hour action) requirement for loss of both trains of the SGTS.

An examination of the analyses of design basis accidents shows that a postulated mainsteam line break results in the bounding off-site release. For example, Table 15.6 of the Final Safety Analysis Report (FSAR) presents a realistic analysis of airborne radioactivity in the Secondary Containment as a function of time following an instrument line break event. The Table indicates that an increase of inoperable period from 1 hour to 4 hours for the SGTS would result in increased airborne activity in the Secondary Containment during the event. However, subsections 15.6.4 and 15.6.2.3.1 in the FSAR clarify that the instrument line breaks are bounded by the steamline break accident, and the bounding off-site release is not affected by the SGTS during the steamline break accident. Thus, the proposed increase to 4 hours neither increases the calculated off-site release consequences nor does it change the safety margin for the bounding accident.

A four hour action statement provides a consistent approach to maintain SGTS and Secondary Containment operability and allows corrective actions to be taken in a well controlled and more thorough manner. This would help to avoid unnecessary and undesirable plant transients that would challenge operators and equipment. Based on this finding the staff concludes that the licensee's proposed changes are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change 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. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation

exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (52 FR 26595) on July 15, 1987 and consulted with the State of Pennsylvania. No public comments were received, and the State 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 this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: J. W. Chung

Dated: March 28, 1988