



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 13, 2009

Mr. William H. Spence
Executive Vice President
Chief Operating Officer/Chief Nuclear Officer
PPL Corporation
Two North Ninth Street, GENTW16
Allentown, PA 18101-1179

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: ADOPTION OF TSTF-511, REVISION 0, TO SUPPORT COMPLIANCE WITH 10 CFR PART 26 USING CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (TAC NOS. ME0967 AND ME0968)

Dear Mr. Spence:

The Commission has issued the enclosed Amendment No.253 to Facility Operating License No. NPF-14 and Amendment No.233 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated March 24, 2009.

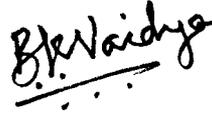
The amendment deleted Technical Specification (TS) Section 5.2.2.e, which is superseded by Title 10 of the *Code of Federal Regulations* (10 CFR) Part 26, "Fitness For Duty Programs," Subpart I, "Managing Fatigue." This change is consistent with U.S. Nuclear Regulatory Commission (NRC) approved Revision 0 to Technical Specification Task Force (TSTF) Improved Standard Technical Specification Change Traveler, TSTF-511, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26."

W. H. Spence

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

Sincerely,

A handwritten signature in black ink, appearing to read "B.K. Vaidya", with a horizontal line underneath the name.

Bhalchandra K. Vaidya, Project Manager
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosures:

1. Amendment No. 253 to
License No. NPF-14
2. Amendment No. 233 to
License No. NPF-22
3. Safety Evaluation

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

PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 253
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment dated March 24, 2009, filed by PPL Susquehanna, LLC, 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. 253 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PPL Susquehanna, LLC 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Nancy L. Salgado, Chief
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: July 13, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 253

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

Page 3

INSERT

Page 3

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

TS/5.0-3
TS/5.0-4

INSERT

TS/5.0-3
TS/5.0-4

- (4) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

PPL Susquehanna, LLC is authorized to operate the facility at reactor core power levels not in excess of 3952 megawatts thermal in accordance with the conditions specified herein. The preoperational tests, startup tests and other items identified in License Conditions 2.C.(36), 2.C.(37), 2.C.(38), and 2.C.(39) to this license shall be completed as specified.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 253 and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. PPL Susquehanna, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 178 to Facility Operating License No. NPF-14, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 178. For SRs that existed prior to Amendment 178, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 178.

(3) Conduct of Work Activities During Fuel Load and Initial Startup

The operating licensee shall review by committee all facility construction, Preoperational Testing, and System Demonstration activities performed concurrently with facility initial fuel loading or with the facility Startup Test

5.2 Organization

5.2.2 Unit Staff (continued)

- b. At least one licensed Reactor Operator (RO) shall be present in the control room of each unit which has fuel in the reactor. In addition, while the unit is in MODE 1, 2, or 3, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room. This individual may be qualified on both Units and serving in this capacity for both Units.
- c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
- d. A radiation protection technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
- e. Deleted

(continued)

5.2 Organization

5.2.2 Unit Staff (continued)

- f. The operations manager or assistant operations manager shall hold an SRO license.
 - g. The Shift Technical Advisor (STA) shall provide advisory technical support to the Shift Supervisor (SS) in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.
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PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 233
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment dated March 24, 2009, filed by the PPL Susquehanna, LLC, 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. 233 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PPL Susquehanna, LLC 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Nancy L. Salgado, Chief
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: July 13, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 233

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

Page 3

INSERT

Page 3

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

TS/5.0-3

TS/5.0-4

INSERT

TS/5.0-3

TS/5.0-4

- (4) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

PPL Susquehanna, LLC is authorized to operate the facility at reactor core power levels not in excess of 3952 megawatts thermal in accordance with the conditions specified herein. The preoperational test, startup tests and other items identified in License Conditions 2.C.(20), 2.C.(21), 2.C.(22), and 2.C.(23) to this license shall be completed as specified.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 233 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PPL Susquehanna, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 151 to Facility Operating License No. NPF-22, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 151. For SRs that existed prior to Amendment 151, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 151.

- 2.C.(3) PPL Susquehanna, LLC 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

Amendment No. 1, 2, 103, 150, 154, 153, 162, 169, 212, 213, 213, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 230, 231, 232, 233

5.2 Organization

5.2.2 Unit Staff (continued)

- b. At least one licensed Reactor Operator (RO) shall be present in the control room of each unit which has fuel in the reactor. In addition, while the unit is in MODE 1, 2, or 3, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room. This individual may be qualified on both Units and serving in this capacity for both Units.
- c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
- d. A radiation protection technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
- e. Deleted

(continued)

5.2 Organization

5.2.2 Unit Staff (continued)

- f. The operations manager or assistant operations manager shall hold an SRO license.
 - g. The Shift Technical Advisor (STA) shall provide advisory technical support to the Shift Supervisor (SS) in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 253 TO FACILITY OPERATING LICENSE NO. NPF-14
AND AMENDMENT NO. 233 TO FACILITY OPERATING LICENSE NO. NPF-22
PPL SUSQUEHANNA, LLC
ALLEGHENY ELECTRIC COOPERATIVE, INC.
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387 AND 388

1.0 INTRODUCTION

By application dated March 24, 2009, (Agencywide Documents Access and Management system (ADAMS) Accession No. ML090920414), PPL Susquehanna, LLC (the licensee), requested changes to the Technical Specifications (TSs) for Susquehanna Steam Electric Station, Units 1 and 2 (SSES-1 and 2).

The proposed amendment would delete TS Section 5.2.2.e, which is superseded by Title 10 of the *Code of Federal Regulations* (10 CFR) Part 26, "Fitness For Duty Programs," Subpart I, "Managing Fatigue." The licensee stated that the application is consistent with U.S. Nuclear Regulatory Commission (NRC) approved Revision 0 to Technical Specification Task Force (TSTF) Improved Standard Technical Specification Change Traveler, TSTF-511, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26."

2.0 REGULATORY EVALUATION

The history of NRC regulations pertaining to prevention of worker impairment is summarized in the *Federal Register* (FR) notice containing the final rule that amended 10 CFR Part 26 (73 FR 16966, March 31, 2008). 10 CFR Part 26, Subpart I provides the regulatory requirements for managing worker fatigue at nuclear power plants.

The NRC's regulatory requirements related to the content of the TS are contained in 10 CFR Part 50.36. 10 CFR 50.36 requires that the TS include items in the following categories: (1) safety limits, limiting safety systems settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) Surveillance Requirements (SR); (4) design features; and (5) administrative controls. The administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

The NRC's guidance for the format and content of licensee TSs can be found in NUREG-1430, Revision 3.0, "Standard Technical Specifications Babcock and Wilcox Plants," NUREG-1431, Revision 3.0, "Standard Technical Specifications Westinghouse Plants," NUREG-1432, Revision 3.0, "Standard Technical Specifications Combustion Engineering Plants," NUREG-1433, Revision 3.0, "Standard Technical Specifications General Electric Plants, BWR/4," and NUREG-1434, Revision 3.0, "Standard Technical Specifications General Electric Plants, BWR/6," referred to as Standard Technical Specifications (STS). Section 5 of STS contains administrative controls. Paragraph d of Section 5.2.2 of STS contains requirements for administrative procedures to limit the working hours of personnel who perform safety-related functions. This paragraph represents NRC's guidance on how licensee TS requirements should address work hour controls. Licensees adhere to the guidance to varying degrees due to minor administrative differences and differences in each licensee's current licensing basis. The inconsistent level of adherence to NRC guidance has led to inconsistent TS interpretation and implementation. This has also made it difficult for NRC to enforce the requirements.

The new requirements of 10 CFR Part 26, Subpart I supersede TS requirements for limiting the working hours of personnel as described in Paragraph d of Section 5.2.2 of all STS. Subpart I distinguishes between work hour controls and fatigue management and strengthens the requirements for both. Subpart I requires nuclear power plant licensees to ensure against worker fatigue adversely affecting public health and safety and the common defense and security by establishing clear and enforceable requirements for the management of worker fatigue. Licensees are required to implement Subpart I by October 1, 2009, as announced in the Final rule that revised 10 CFR Part 26 (73 FR 16966, March 31, 2008). TSTF-511 proposed a change to STS that would delete paragraph d of STS 5.2.2. This change was approved in FR notice on December 30, 2008 (73 FR 79923).

2.1 Adoption of TSTF-511, Revision 0, by Susquehanna Steam Electric Station

Proper adoption of TSTF-511 and implementation of 10 CFR Part 26, Subpart I by Susquehanna will provide reasonable assurance that Susquehanna will maintain limits on the working hours of personnel who perform safety-related functions. Susquehanna has committed to remove the plant-specific TS requirements concurrently with the implementation of the 10 CFR Part 26, Subpart I requirements.

3.0 TECHNICAL EVALUATION

Controls on work hours for personnel at nuclear power plants are necessary to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Work hour controls for Susquehanna are currently located in paragraph d of TS 5.2.2. When implemented, the regulatory requirements of 10 CFR Part 26, Subpart I replace the plant-specific TS requirements found in paragraph d of Susquehanna's TS.

The licensee proposed deleting paragraph d of TS 5.2.2. The licensee committed to implement the new requirements of 10 CFR Part 26, Subpart I concurrently with the deletion of the TS requirements on work hour controls. The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the above regulatory commitment(s) are best provided by the licensee's administrative processes, including its commitment management program (see Regulatory Issue Summary 2000-017, "Managing

Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff"). The above regulatory commitments do not warrant the creation of regulatory requirements (items requiring prior NRC approval of subsequent changes).

The staff evaluated the licensee's proposed change against the applicable regulatory requirements listed in Section 2. The staff also compared the proposed change to the change made to STS by TSTF-511. The staff considered the licensee's commitment to implement 10 CFR Part 26, Subpart I concurrently with the deletion of TS work hour control requirements in its evaluation of the proposed change. Given the licensee's commitment, there is reasonable assurance that the licensee will comply with the regulations for work hour controls, either through TS requirements or through the requirements of 10 CFR Part 26, Subpart I, at all times at Susquehanna. Therefore, the licensee will continue to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Therefore, the staff finds the proposed change acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments relate to changes in recordkeeping, reporting, or administrative procedures or requirements. The NRC staff has determined that the amendments 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 the amendments involves no significant hazards consideration, and there has been no public comment on such finding issued on May 5, 2009, (74 FR 20752). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(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 amendment.

6.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. Susquehanna Licensee Amendment Request to adopt TSTF-511, April 15, 2009, Agencywide Documents Access and Management System (ADAMS) Accession No. ML090920414
2. FR Notice, Notice of Availability published on December 30, 2008 (73 FR 79923).

3. TSTF-511 Revision 0, A Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26.”

Principal Contributors: V. Cusumano
A. Lewin

Date: July 13, 2009

W. H. Spence

- 2 -

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

Sincerely,

/RA/

Bhalchandra K. Vaidya, Project Manager
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosures:

1. Amendment No. 253 to
License No. NPF-14
2. Amendment No. 233 to
License No. NPF-22
3. Safety Evaluation

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