May 29, 2003

Mr. Bryce L. Shriver
Senior Vice President
and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - MAIN TURBINE BYPASS SYSTEM OPERABILITY REQUIREMENTS (TAC NOS. MB6671 AND MB6672)

Dear Mr. Shriver:

The Commission has issued the enclosed Amendment No. 210 to Facility Operating License No. NPF-14 and Amendment No. 185 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2 (SSES 1 and 2). These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated October 31, 2002.

The amendments revise SSES 1 and 2 TS requirements for operability of the main turbine bypass system bypass valves. Specifically, Surveillance Requirement 3.7.6 has been revised to test only each required main turbine bypass valve every 31 days.

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

Sincerely,

/RA/

Richard V. Guzman, Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosures: 1. Amendment No. 210 to License No. NPF-14
2. Amendment No. 185 to License No. NPF-22
3. Safety Evaluation

cc w/encls: See next page

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3. Safety Evaluation

DISTRIBUTION:

PDI-1 R/F	RDennig	BPlatchek, RGN-1
ACRS	RGuzman	OGC
PUBLIC	M'OBrien	GHill (4)
GThomas	RLaufer	

cc w/encls: See next page
* Provided SE input by memo. No substantive changes made.
** See previous concurrence page
Accession No.: ML0311490374 Package No.: ML TSs: ML

OFFICE	PDI-1/PM	PDI-2/LA	SRXB	OGC	PDI-1/SC
NAME	RGuzman	MO'Brien	FAkstulewicz*	AFernandez**	RLaufer
DATE	05/ /03	05/ /03	03/13/03	05/27/03	05/ /03

OFFICIAL RECORD COPY

Susquehanna Steam Electric Station,
Units 1 &2

cc:

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Units 1 &2

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PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 210
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 PPL Susquehanna, LLC, dated October 31, 2002, 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. 210 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard J. Laufer, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Date of Issuance: May 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 210

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE	INSERT
3.7-15	3.7-15

PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 185
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 PPL Susquehanna, LLC, dated October 31, 2002, 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. 185 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard J. Laufer, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Date of Issuance: May 29, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 185

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE	INSERT
3.7-15	3.7-15

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 210 TO FACILITY OPERATING LICENSE NO. NPF-14

AND AMENDMENT NO. 185 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 October 31, 2002, PPL Susquehanna, LLC (PPL, the licensee), requested changes to the Technical Specifications (TSs) for Susquehana Steam Electric Station, Units 1 and 2 (SSES 1 and 2).

The proposed amendments would revise the TSs, Section 3.7.6, “Main Turbine Bypass System,” to change the requirement for operability of the main turbine bypass system (MTBS) bypass valves. Specifically, Surveillance Requirement (SR) 3.7.6 would be revised to test only each required main turbine bypass (MTB) valve every 31 days.

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) staff finds that PPL in its October 31, 2002, submittal identified the applicable regulatory requirements. The regulatory requirements and guidance which the NRC staff considered in its review of the application are as follows:

1. Title 10 of the *Code of Federal Regulations* (10 CFR) establishes the fundamental regulatory requirements with respect to the reactivity control systems. Specifically, General Design Criterion 10, “Reactor Design,” in Appendix A to Part 50, "General Design Criteria for Nuclear Power Plants," states, in part, that the reactor core and associated coolant, control, and protection systems shall be designed with appropriate margin to assure that specified acceptable fuel design limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences.

2. Section 50.36(c)(3) of 10 CFR, “Surveillance requirements,” states, in part, that SRs assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The MTBS is designed to control steam pressure when reactor steam generation exceeds turbine requirements during turbine unit startup, sudden load reduction, and cooldown. It allows excess steam flow from the reactor to the condenser without going through the turbine. The full bypass capacity of the system is approximately 25% of the nuclear steam supply system rated steam flow. Sudden load reductions within the capacity of the steam bypass can be accommodated without reactor scram. The MTBS consists of five valves (all five valves have the same capacity) connected to the main steam lines between the main steam isolation valves and the turbine stop valve bypass valve chest. Each of these valves is operated by hydraulic cylinders. The MTB valves are controlled by the pressure regulation function of the main turbine electro-hydraulic control system. The MTB valves are normally closed, and the pressure regulator controls the turbine control valves that direct all steam flow to the turbine. If the speed governor or the load limiter restricts steam flow to the turbine, the pressure regulator controls the system pressure by opening the MTB valves.

The MTBS fast opening feature is assumed to function during the turbine generator load rejection and feedwater controller failure transients as discussed in the final safety analysis report. Opening the MTB valves during the pressurization event mitigates the increase in reactor vessel pressure, which affects the minimum critical power ratio (MCPR) during the event. An inoperable MTBS may result in an MCPR penalty.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes

PPL's proposed TS change would revise the SSES 1 and 2 TS requirements for operability of the MTBS bypass valves. Currently, the SSES 1 and 2 TSs, Section 3.7.6, assumes all five MTB valves are required to be OPERABLE when the reactor thermal power is greater than or equal to 25% of rated thermal power. SR 3.7.6.1 verifies operability of the MTBS by requiring that each MTB valve be operated through one complete cycle every 31 days. PPL's proposed change would would revise SR 3.7.6.1 to verify one complete cycle of only each *required* MTB valve every 31 days.

3.2 Evaluation of Proposed Changes

The current cycle-specific safety analyses assume that four MTB valves are OPERABLE. However, there is no allowance in Section 3.7.6 to take credit for only the number of MTB valves assumed in the safety analyses. For example, If one of the five MTB valves is inoperable, 2 hours are allowed to either restore the inoperable valve to OPERABLE status or apply the MCPR penalty as specified in the core operating limits report. This requirement applies even if the safety analyses assume less than five OPERABLE MTB valves.

If one MTB valve becomes inoperable, the entire MTBS would be declared inoperable and a unit power reduction of more than 10% could be required due to the associated MCPR penalty. However, with the proposed change implemented, one inoperable MTB valve would not necessarily require application of an MCPR penalty and a unit power reduction would not be necessary.

The proposed change takes credit for the number of MTB valves assumed in the safety analyses. Surveillance will be performed only for the four valves assumed in the analyses. The proposed change revises only the number of MTB valves to be cycled monthly.

The NRC staff finds that the proposed change to the SSES 1 and 2 TSs is consistent with the number of MTB valves assumed to be OPERABLE in the safety analyses. In addition, there are no adverse effects on safety functions as a result of the proposed change. The proposed change does not change the design function or operation of the MTBS. The NRC staff, therefore, concludes that the proposed TS change is acceptable.

3.3 Summary

The NRC staff has reviewed the request by PPL to revise the TSs for SSES 1 and 2. The proposed change makes the operability requirements for the MTBS consistent with the assumptions used in the current safety analyses. Based on the review, the NRC staff concludes that the proposed changes are acceptable. Although the licensee's application included wording for the revised Bases discussion for TS 3.7.6, the licensee will formally address the change to the Bases in accordance with the TS Bases Control Program described in TS 5.5.10.

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 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 (67 FR 78524). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

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

Principal Contributors: G. Thomas
R. Guzman

Date: May 29, 2003