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 - CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM (TAC NOS. MB6663 AND MB6664)

Dear Mr. Shriver:

The Commission has issued the enclosed Amendment 211 to Facility Operating License No. NPF-14 and Amendment 186 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments are in response to your application dated October 30, 2002.

The amendments revise Technical Specifications Section 5.5.7, “Ventilation Filter Testing Program,” by changing the control room emergency outside air supply system maximum allowed filter train pressure drop from <9.1 inches water gage (wg), to <7.3 inches wg.

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. 211 to License No. NPF-14
2. Amendment No. 186 to License No. NPF-22
3. Safety Evaluation

cc w/encls: See next page

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*Provided SE input by memo. No substantive changes made.
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DATE	05/12/03	05/14/03	04/01/03	05/22/03	05/28/03

OFFICIAL RECORD COPY

Susquehanna Steam Electric Station,
Units 1 &2

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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. 211
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 30, 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. 211 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. 211

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
5.0-14	5.0-14

PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 186
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 30, 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. 186 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. 186

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
5.0-14	5.0-14

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 211 TO FACILITY OPERATING LICENSE NO. NPF-14

AND AMENDMENT NO. 186 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 30, 2002, PPL Susquehanna, LLC (PPL, the licensee), requested amendments to revise the Susquehanna Steam Electric Station, Units 1 and 2 (SSES 1 and 2), Technical Specifications (TSs) to correct a technical error in the administrative controls section of the TSs. The proposed amendments would revise TS Section 5.5.7, “Ventilation Filter Testing Program,” to change the control room emergency outside air supply system (CREOASS) maximum allowed filter train pressure drop from <9.1 inches water gage (wg) to <7.3 inches wg. The proposed change would align the TSs with all current design analyses, design documents, and licensing requirements.

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) staff finds that PPL in its October 30, 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 19, “Control room,” in Appendix A to Part 50, "General Design Criteria for Nuclear Power Plants," states, in part, that the control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions.

2. NUREG-1433, ”Standard Technical Specifications, General Electric Plants [BWR/4],” states that for each of the engineered-safety-feature (ESF) filter ventilation systems, the pressure drop across the combined high-efficiency particulate air (HEPA) filters, prefilters, and charcoal adsorbers should be less than the value specified when tested at the system flowrate.

3. Regulatory Guide 1.52 (RG 1.52), Revision 2, “Design, Testing, and Maintenance Criteria for Post-Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants,” provides

guidance and criteria acceptable to the Nuclear Regulatory Commission (NRC) staff for implementing the NRC's regulations in Appendix A to 10 CFR Part 50 with regard to the design, inspection, and testing of air filtration and iodine adsorption units of ESF atmosphere cleanup systems.

Specifically, PPL is committed to positions C.5.a, C.5.c and C.5.d of Section C.5 of RG 1.52, Revision 2, as identified in the SSES 1 and 2, Final Safety Analysis Report (FSAR), Section 3.13. PPL is not committed to perform design-basis filter train pressure drop testing in accordance with Section C.5.b of RG 1.52 as identified in their current licensing basis. In lieu of this guidance, PPL has reasoned that the measurements of the total filter train pressure drop is performed in accordance with the plant procedures by measuring the pressure drop across each component of the filter train to assure that no single component is outside its design-basis pressure drop.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes

PPL's proposed TS change would correct a technical error in the administrative controls section (Section 5.5.7.d) of the TSs. Specifically, the revision would change the maximum allowed pressure drop across the CREOASS prefilters, HEPA filters, and charcoal adsorbers when tested at the specified system flowrate. The current maximum allowed CREOASS filter train pressure drop specified in TS Section 5.5.7.d is < 9.1 inches wg. The proposed change would require the maximum allowed CREOASS pressure drop to be < 7.3 inches wg.

The maximum filter train pressure drop of 9.1 inches wg was derived by adding the maximum allowable pressure drop for each filter train component. For the CREOASS, the maximum pressure drop for the prefilter was 0.9 inches wg, the upstream HEPA filter was 3.0 inches wg, the charcoal adsorber was 2.2 inches wg, and the downstream HEPA filter was 3.0 inches wg, yielding a total filter train pressure drop of 9.1 inches wg. During the initial startup testing of the CREOASS, the system could not achieve the system design flowrate under a simulated design-basis pressure drop condition across the filter train; therefore, the design downstream fully loaded (dirty) HEPA filter pressure drop was changed from 3.0 inches wg to 1.2 inches wg. The other filter train components' design pressure drop remained unchanged, thus yielding a new maximum filter train pressure drop of 7.3 inches wg.

3.2 Evaluation of proposed changes

Each unit consists of two CREOASS air filtration units. Each of the two redundant CREOASS filter units consists of an electric heater, a bank of prefilters, two banks of HEPA filters (one upstream and one downstream of the charcoal adsorber) and a vertical 4 in. deep charcoal adsorber bed with fire detector temperature sensors, associated damper, instruments, controls and a water flooding system for fire protection. The CREOASS works in conjunction with the control structure heating, ventilation, and air conditioning (HVAC) systems to maintain habitability in the control structure. Each CREOASS is designed to function automatically upon receipt of a radiation detection signal from detector elements located in the outside air intake plenum. The CREOASS can be started manually in the recirculation mode to clean up the air within the control room. The reactor building HVAC systems isolation signal (design-basis accident initiation signal) will cause the CREOASS to operate in exactly the same manner as a

high radiation signal from the outside air intake. The CREOASS can also be actuated manually from the control room.

The CREOASS air filtration units were sized to deliver a design airflow rate of 5,229 to 6,391 cubic feet per minute. The original design-basis requirement for the CREOASS air filter train was to maintain the design airflow rate with a maximum differential pressure drop across the filter of <9.1 inches wg. The proposed TS change will lower the pressure drop limit based on a calculation performed by PPL that assures the system design flowrate will be met. Based on PPL's calculation, the current CREOASS fans will supply the design flowrate under design conditions. The calculation established a lower filtration unit design filtration pressure drop of <7.3 inches wg. This new pressure drop is validated by analysis performed in the SSES 1 and 2 calculations recently developed to adequately document the design basis of the air filtration units and confirmed by station surveillance tests.

As stated in the SSES 1 and 2, FSAR, Section 6.5.12, part of the design-basis for the CREOASS filter train is to maintain system capacity with all particulate filters fully loaded (dirty). Since PPL is not committed to Section C.5.b of RG 1.52 which requires the design-basis filter train pressure drop test to be performed, PPL measures the pressure drop across each component of the filter train to assure that no single filter train component is outside its design-basis pressure drop. The NRC staff finds that this verification provides reasonable assurance that the CREOASS filter train pressure drop remains below the maximum value and thus, the design flowrate of the CREOASS is maintained. Additionally, the proposed differential pressure design criteria is more restrictive than the current SSES 1 and 2 TS value of < 9.1 inches wg because with a pressure drop limit of < 7.3 inches wg, a fully loaded (dirty) filter will be detected earlier in its development than it would with the current value of <9.1 inches wg.

In addition, the proposed change does not involve a physical modification or alteration of plant equipment (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The proposed change does not change the design function or operation of the CREOASS. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated in the SSES 1 and 2 FSAR.

The NRC staff finds that the proposed change to the SSES 1 and 2 TSs is consistent with the actual system performance and provides reasonable assurance of overall plant safety. The NRC staff, therefore, concludes that the proposed TS change is 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. 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 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: N. Iqbal
R. Guzman

Date: May 29, 2003