

March 9, 2001

Mr. Robert G. Byram  
Senior Vice President  
and Chief Nuclear Officer  
PPL Susquehanna, LLC  
2 North Ninth Street  
Allentown, PA 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - ISSUANCE OF  
AMENDMENT RE: MAIN STEAM ISOLATION VALVE LEAKAGE ACCEPTANCE  
CRITERIA (TAC NOS. MA9796 AND MA9797)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 190 to Facility Operating License No. NPF-14 and Amendment No. 165 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated July 31, 2000.

These amendments revise the main steam isolation valve leakage rate surveillance requirements. Specifically, the amendments delete the term "maximum pathway" from TS 3.6.1.3, "Primary Containment Isolation Valves," surveillance requirement (SR) 3.6.1.3.12.

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

Sincerely,

*/RA/*

Robert G. Schaaf, 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. 190 to  
License No. NPF-14  
2. Amendment No. 165 to  
License No. NPF-22  
3. Safety Evaluation

cc w/encls: See next page

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| M. Gamberoni  | G. Hill(4) | C. Cowgill, RGN-I |

ACCESSION NO. ML010430008

\*No major changes to SE.

|        |          |          |                |        |            |
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OFFICIAL RECORD COPY

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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. 190  
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 July 31, 2000, 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. 190 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

*/RA/G.* Vissing for

Marsha Gamberoni, Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: March 9, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 190

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

3.6-15

INSERT

3.6-15

PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165  
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 July 31, 2000, 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. 165 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

*/RA/* G. Vissing for

Marsha Gamberoni, Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: March 9, 2001



ATTACHMENT TO LICENSE AMENDMENT NO. 165

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

3.6-15

INSERT

3.6-15

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 190 TO FACILITY OPERATING LICENSE NO. NPF-14  
AND AMENDMENT NO. 165 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 50-388

## 1.0 INTRODUCTION

By letter dated July 31, 2000, PPL Susquehanna, LLC (the licensee), submitted a request for changes to the Susquehanna Steam Electric Station, Units 1 and 2, Technical Specifications (TSs). The requested changes would delete the term "maximum pathway" from surveillance requirement (SR) 3.6.1.3.12 in TS 3.6.1.3, "Primary Containment Isolation Valves."

The term "maximum pathway" was added to the TS in an August 1995 TS amendment when the main steam line isolation valve (MSIV) leakage acceptance criteria was changed from 46 standard cubic feet per hour (scfh) to 300 scfh. Recently, the licensee realized that the use of combined maximum pathway leakage for evaluating the as-found leakage is not consistent with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix J, or the Standard Technical Specifications. Therefore, the licensee requested to use the term "combined leakage" instead of "combined maximum pathway leakage" for evaluating the MSIV leak rate.

## 2.0 EVALUATION

SR 3.6.1.3.12 requires verification that the leakage rate through each MSIV is  $\leq 100$  scfh and  $\leq 300$  scfh for the combined maximum pathway leakage, including the leakage from the MS line drains, when the MSIVs are tested at  $\geq 22.5$  psig or  $P_a$  and the MS line drains are tested at  $P_a$ . The test frequency is in accordance with the primary containment leakage rate testing program.

The licensee proposed to remove the term "maximum pathway" from SR 3.6.1.3.12. The licensee stated in its submittal that the design basis accident (loss-of-coolant accident) dose analysis assumes 300 scfh of leakage through the MSIVs to the main condenser. When as-found MSIV leak rate testing is performed, the leak rate for each MSIV is determined. The total leakage that reaches the main condenser is the summation of the leakage that passes through both of the MSIVs in each of the four main steam lines. This leakage is the combined MSIV minimum pathway leakage rate (MNPLR). The MNPLR is the minimum leakage rate attributable to a penetration leakage path (e.g., the smaller of either the inboard or outboard

valve's leakage rate). The MNPLR is typically compared to the penetration design basis to assess operability and reportability. The maximum pathway leakage rate (MXPLR) is the maximum leakage rate attributable to a penetration leakage path (e.g., the larger of either the inboard or outboard valve's leakage rate). Applying the MXPLR is overly conservative and is not consistent with Nuclear Energy Institute (NEI) guidance document NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," (Revision 0) dated July 26, 1995, or the Standard Technical Specifications.

Regulatory Guide 1.163, "Performance-Based Containment Leak-Rate Test Program," issued September 1995, endorses NEI 94-01. NEI 94-01 provides methods acceptable to the Nuclear Regulatory Commission (NRC) staff for complying with the alternate testing requirements of Option B in Appendix J to 10 CFR Part 50. NEI 94-01, in its Testing Methodologies for Types A, B, and C tests, recommends that acceptance criteria for the combined as-found leakage rate for all penetrations subject to Type B and Type C testing be the same as that defined in the American National Standards Institute/American Nuclear Society (ANSI/ANS) standards document ANSI/ANS 56.8-1994, "Containment System Leakage Testing Requirements," with the following additions: (1) the combined as-left leakage rates determined on an MXPLR basis for all penetrations shall be verified to be less than  $0.6 L_a$  prior to entering a mode where containment integrity is required following an outage or shutdown that included Type B and Type C testing only; and (2) The combined as-found leakage rates determined on an MNPLR basis for all penetrations shall be less than  $0.6 L_a$  at all times when containment integrity is required.

The proposed change will use the as-found minimum pathway leakage rate (as compared to 300 scfh) for operability and reportability determinations, consistent with criterion (2) above. The as-left maximum pathway leakage will continue to be verified to be below 300 scfh prior to entering a mode where containment integrity is required, consistent with criterion (1) above. The NRC staff finds that the proposed change is consistent with the guidance of RG 1.163 and NEI 94-01, and complies with the Option B performance-based requirements of Appendix J to 10 CFR Part 50. The change is also consistent with the Standard Technical Specifications. Therefore, the proposed change is acceptable.

On the basis of its review, the NRC staff concludes that deletion of the term "maximum pathway" from SR 3.6.1.3.12 is acceptable. The applicable TS bases will be updated by the licensee in accordance with TS 5.5.10, "Technical Specifications (TS) Bases Control Program."

The "camera ready" TS page for Unit 1 provided by the licensee included a typographical error in SR 3.6.1.3.12 ("...the MS Line Drain are tested..." should read "...the MS Line Drains are tested..."). The licensee provided a corrected "camera ready" TS page to the staff.

### 3.0 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.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a surveillance requirement. 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 (65 FR 62390). Accordingly, the amendments meet 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.

## 5.0 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 Contributor: J. Guo

Date: March 9, 2001