

William H. Spence
Executive Vice President and
Chief Operating Officer/Chief Nuclear Officer
Tel. 610.774.3683 Fax 610.774.5019
Whspence@pplweb.com

PPL Corporation
Two North Ninth Street
Allentown, PA 18101-1179
Tel. 610.774.5151
www.pplweb.com



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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
SUPPLEMENT TO AMENDMENT REQUEST NO. 274
TO UNIT 2 LICENSE NPF-22: MCPR SAFETY LIMITS
PLA-6475**

Docket No. 50-388

*Reference: 1) PLA-6438, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC),
"Proposed Amendment No. 274 to Unit 2 License NPF-22: MCPR Safety Limits,"
dated October 30, 2008.*

In accordance with the provisions of 10 CFR 50.90, PPL Susquehanna, LLC (PPL) is submitting a supplement to the requested amendment to the Technical Specifications for Susquehanna Steam Electric Station Unit 2 that was submitted in Reference 1. This supplement proposes a new license condition to the Unit 2 Operating License (NPF-22) and is the result of discussion between PPL and NRC personnel that occurred on January 13, 2009.

In accordance with 10 CFR 21, on October 8, 2007, AREVA NP, Inc. (AREVA) provided notification of a defect in the calculation of steady-state core Minimum Critical Power Ratio (MCPR) by the core monitoring system when the SPCB critical power correlation is used for ATRIUM-10 fuel. The defect is in the additive constants, a parameter used by the SPCB critical power calculation. PPL subsequently implemented compensatory actions to address the error created by the non-conservative additive constants. On May 1, 2008, AREVA submitted EMF-2209(P), Revision 2, Addendum 1, "SPCB Additive Constants for ATRIUM-10 Fuel" that revised the additive constants to correct the reported defect. The requested amendment submitted in Reference 1 was based on calculations that used the corrected additive constants contained in EMF-2209(P), Revision 2, Addendum 1. Since EMF-2209(P), Revision 2, Addendum 1 is currently under review by the NRC, PPL is submitting a proposed license condition to require that appropriate compensatory actions be applied until the approved version of EMF-2209(P), Revision 2, Addendum 1 is published and PPL verifies that the additive constants from the approved report have been incorporated in the cycle-specific analyses.

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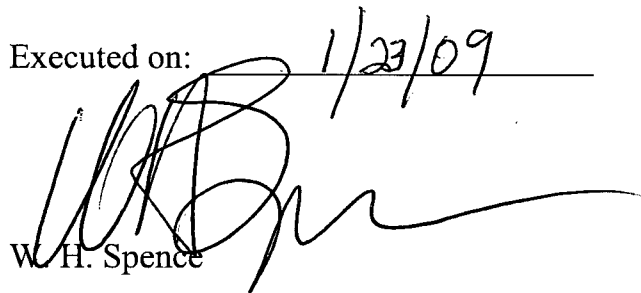
Attachment 1 provides the evaluation for the proposed change. Attachment 2 provides the corresponding Facility Operating License "markup" page. No new regulatory commitments are made herein.

In accordance with 10 CFR 50.91(b), PPL Susquehanna, LLC is providing the Commonwealth of Pennsylvania with a copy of this proposed License Amendment request.

If you have any questions regarding this submittal, please contact Mr. C. E. Manges, Jr. at (570) 542-3089.

I declare, under penalty of perjury, that the foregoing is true and correct.

Executed on:

1/23/09

W. H. Spence

Attachments:

- Attachment 1 – Description and Assessment of the Proposed Change
- Attachment 2 – Proposed License Condition to Unit 2 Operating License (Mark-ups)

cc: NRC Region I
Mr. R. Janati, DEP/BRP
Mr. F. W. Jaxheimer, NRC Sr. Resident Inspector
Mr. B. K. Vaidya, NRC Project Manager

Attachment 1 to PLA-6475

Description and Assessment of the Proposed Change

DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

Operating License NPF-22 for Susquehanna Steam Electric Station (SSES) Unit 2 will have an additional license condition. The proposed License Condition 2.C.25 will be added to ensure that PPL applies appropriate compensatory actions until the approved version of EMF-2209(P), Revision 2, Addendum 1 is published and PPL verifies that the additive constants from the approved report have been incorporated in the cycle-specific analyses.

2.0 DESCRIPTION OF PROPOSED AMENDMENT

Proposed License Condition 2.C.25 is as follows:

“AREVA NP has submitted EMF-2209(P), Revision 2, Addendum 1 (ML081260442) for NRC review to correct the critical power correlation additive constants due to a prior Part 21 notification (ML 072830334). The report is currently under NRC review.

The licensee shall apply additional margin to the cycle-specific OLMCPR, consistent in magnitude with the non-conservatism reported in the Part 21 report, thus imposing the appropriate MCPR penalty on the OLMCPR. This compensatory measure is to be applied until the approved version of EMF-2209(P), Revision 2, Addendum 1 is published and PPL verifies that the additive constants from the approved report have been incorporated in the cycle-specific analyses.”

3.0 BACKGROUND

In accordance with 10 CFR 21, on October 8, 2007, AREVA NP, Inc. (AREVA) provided notification of a defect in the calculation of steady-state core Minimum Critical Power Ratio (MCPR) by the core monitoring system when the SPCB critical power correlation is used for ATRIUM-10 fuel. The defect is in the additive constants, a parameter used by the SPCB critical power calculation. PPL subsequently implemented compensatory actions to address the error created by the non-conservative additive constants. On May 1, 2008, AREVA submitted EMF-2209(P), Revision 2, Addendum 1, “SPCB Additive Constants for ATRIUM-10 Fuel” that revised the additive constants to correct the reported defect. The requested amendment submitted in Reference 1 was based on calculations that used the corrected additive constants contained in

EMF-2209(P), Revision 2, Addendum 1. Since EMF-2209(P), Revision 2, Addendum 1 is currently under review by the NRC, PPL is submitting a proposed license condition to require that appropriate compensatory actions be applied until the approved version of EMF-2209(P), Revision 2, Addendum 1 is published and PPL verifies that the additive constants from the approved report have been incorporated in the cycle-specific analyses.

4.0 TECHNICAL ANALYSIS

This supplement does not affect the technical justification or conclusions provided in the original request (Reference1).

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

This supplement does not affect the no significant hazards consideration evaluation provided in the original request.

5.2 Applicable Regulatory Requirements/Criteria

This supplement does not affect the discussion of the applicable regulatory requirements/criteria provided in the original request.

6.0 ENVIRONMENTAL CONSIDERATIONS

This supplement does not affect the environmental considerations conclusions provided in the original request.

7.0 REFERENCES

- (1) PLA-6438, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Proposed Amendment No. 274 to Unit 2 License NPF-22: MCPR Safety Limits," dated October 30, 2008.

Attachment 2 to PLA-6475

**Proposed License Conditions to Unit 2 Operating
License**

(Mark-ups)

(23) Containment Operability for EPU

PPL shall ensure that the CPPU containment analysis is consistent with the SSES 1 and 2 operating and emergency procedures. Prior to operation above CLTP, PPL shall notify the NRC project manager that all appropriate actions have been completed.

(24) Primary Containment Leakage Rate Testing Program

Those primary containment local leak rate program tests (Type B - leakage-boundary and Type C - containment isolation valves) as modified by approved exemptions, required by 10 CFR Part 50, Appendix J, Option B and Technical Specification 5.5.12, are not required to be performed at the CPPU peak calculated containment internal pressure of 48.6 psig (Amendment No. 224 to this Operating License) until their next required performance.

Insert A →

2. D. The operating licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Susquehanna Steam Electric Station Physical Security Plan," with revisions submitted through September 24, 1987; "Susquehanna Steam Electric Station Guard Training and Qualification Plan," with revisions submitted through May 28, 1985; and "Susquehanna Steam Electric Station Safeguards Contingency Plan," with revisions submitted through September 24, 1987. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedules set forth therein.

E. Deleted.

INSERT A

(25) Critical Power Correlation Additive Constants

AREVA NP has submitted EMF-2209(P), Revision 2, Addendum 1 (ML081260442) for NRC review to correct the critical power correlation additive constants due to a prior Part 21 notification (ML 072830334). The report is currently under NRC review.

The licensee shall apply additional margin to the cycle specific OLMCPR, consistent in magnitude with the non-conservatism reported in the Part 21 report, thus imposing the appropriate MCPR penalty on the OLMCPR. This compensatory measure is to be applied until the approved version of EMF-2209(P) Revision 2, Addendum 1 is published and PPL verifies that the additive constants from the approved report have been incorporated in the cycle specific analyses.