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U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENT NO. 227 TO LICENSE NPF-14:
ANFB-10 CRITICAL POWER CORRELATION AND
MCPR SAFETY LIMITS
PLA-5040**

Docket No. 50-387

References:

1. Letter from Victor Nerses (NRC) to Robert G. Byram (PP&L), "Susquehanna Steam Electric Station, Unit 2 (TAC No. MA2434)," February 17, 1999.
2. EMF-1997 (P)(A) Revision 0, "ANFB-10 Critical Power Correlation," July 1998, and EMF-1997 (P)(A) Supplement 1 Revision 0, "ANFB-10 Critical Power Correlation: High Local Peaking Results," July 1998.
3. ANF-1125 (P)(A) and ANF-1125 (P)(A), Supplement 1, "ANFB Critical Power Correlation," April 1990.
4. PL-NF-90-001-A, "Application of Reactor Analysis Methods for BWR Design and Analysis," July 1992, plus Supplements 1-A (August 1995) and 2-A (July 1996).
5. EMF-97-010(P), Rev. 1, "Application of ANFB to ATRIUM™-10 for Susquehanna Reloads," March 1997.
6. PLA-4595, "Response to NRC Request for Additional Information on Siemens' Report EMF-97-010, Revision 1," March 27, 1997.
7. ANF-524(P)(A), Revision 2 and Supplement 1, Revision 2, "Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors," November 1990.
8. CENPD-300-P, "Reference Safety Report for Boiling Water Reactor Reload Fuel," ABB Combustion Engineering Nuclear Operations, November 1994.

The purpose of this letter is to propose changes to the Susquehanna Steam Electric Station Unit 1 Technical Specifications, which are similar to those recently approved in February 1999 for Unit 2 (Reference 1). Reference 2 documents the NRC approved critical power correlation applicable to Siemens Power Corporation (SPC) ATRIUM™-10 fuel (referred to as ANFB-10). This proposed change entails the inclusion of Reference 2 in Section 5.6.5 and the inclusion of revised MCPR Safety Limits in Section 2.1.1.2. An administrative change to Section 5.6.5 is included. A number of references from Section 5.6.5 are removed in order to include only those references which directly support the generation of the Core Operating Limits and to remove the reference for the ABB Lead Use Assemblies (Reference 8), which will be discharged during the next Unit 1 outage. Associated BASES changes are also included.

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The ANFB-10 correlation will be used in the analysis of ATRIUM™-10 fuel in place of the ANFB critical power correlation and methodology described in References 5 and 6. The ANFB correlation (Reference 3) will continue to be used in the analysis of SPC 9x9-2 fuel. The ANFB (for 9x9-2) and ANFB-10 (for ATRIUM™-10) correlations will be used with PP&L's and SPC's NRC approved methods, and analyses will be performed (consistent with those methods) to generate Core Operating Limits. Therefore, PP&L will not be submitting a change to its NRC-approved Topical Reports (Reference 4) since the methodology is the same except ANFB-10 will be used to analyze ATRIUM™-10 fuel.

SPC report EMF-1997 (P)(A), Rev. 0 and Supplement 1, Rev. 0 (proposed to be added to the Technical Specification Administrative Controls section) describes the ANFB-10 critical power correlation, which has been approved by the NRC.

Enclosure A to this letter is the "Safety Assessment" supporting this change. Enclosure B is the "No Significant Hazards Considerations and Environmental Assessment" evaluation performed in accordance with the criteria of 10 CFR 50.92. Enclosure C to this letter contains the applicable pages of the Susquehanna SES Unit 1 Technical Specifications, marked to show the proposed changes as well as the associated BASES changes. The proposed changes have been approved by the Susquehanna SES Plant Operations Review Committee and reviewed by the Susquehanna Review Committee.

To assist in your review, Attachments D and E have been provided. Attachment D provides the Unit 1 Cycle 12 Core Composition. Attachment E provides a cross-reference to applicable Technical Specifications for those references specified in Section 5.6.5 of Technical Specifications.

PP&L plans to implement the proposed changes in May 2000 to support the startup of Unit 1 Cycle 12 operation. Therefore, we request NRC complete its review of this change by February 11, 2000 with the changes effective upon startup following the Unit 1 11th Refueling and Inspection Outage to support our scheduled implementation date.

Any questions regarding this request should be directed to Mr. R. R. Sgarro at (610) 774-7552.

Very truly yours,



R. G. Byram

Attachments

copy: NRC Region I
Mr. V. Nerses, NRC Sr. Project Manager - OWFN
Mr. S. L. Hansell, Acting NRC Sr. Resident Inspector - SSES
Mr. D. J. Allard, Pa. DEP



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