

Robert G. Byram
Senior Vice President and
Chief Nuclear Officer

PPL Susquehanna, LLC
Two North Ninth Street
Allentown, PA 18101-1179
Tel. 610.774.7502 Fax 610.774.5019
rgbyram@pplweb.com



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Attn.: Document Control Center
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SUSQUEHANNA STEAM ELECTRIC STATION
10 CFR 50.46 REPORT
PLA-5256

Docket Nos. 50-387
and 50-388

References:

- 1) *NE-092-001 A, Revision 1, "Licensing Topical Report for Power Uprate with Increased Core Flow," Pennsylvania Power & Light Company, December 1992 and associated NRC SER dated November 30, 1993.*
- 2) *Letter from R. G. Byram (PPL) to the U. S. Nuclear Regulatory Commission, "10 CFR 50.46 Report," November 15, 1999 (PLA-5132).*
- 3) *Letter from G. A. Watford (GE) to Chief, Reactor Systems Branch of the U. S. Nuclear Regulatory Commission, "Summary of Changes and Errors in ECCS Evaluation Models," June 30, 2000 (FLN-2000-06).*
- 4) *ANF-91-048(P)(A), "Advanced Nuclear Fuels Corporation Methodology for Boiling Water Reactors EXEM BWR Evaluation Model," January 1993.*
- 5) *Letter from J. F. Mallay (SPC) to Chief, Planning, Program and Management Support Branch of the U.S. Nuclear Regulatory Commission, "1999 - Annual Reporting of Changes and Errors in ECCS Evaluation Models," February 23, 2000 (NRC:00:010).*

This report is being sent in accordance with 10 CFR 50.46 (a)(3)(ii), which requires annual reporting of changes to or errors in evaluation models used for calculating Emergency Core Cooling System (ECCS) performance, and an estimate of their effect on the limiting ECCS analysis.

General Electric SAFER/GESTR-LOCA

In December 1992, as part of the Susquehanna SES Units 1 & 2 Power Uprate Program, the SAFER/GESTR-LOCA methodology was employed for the SPC 9x9-2 fuel resident in Susquehanna SES (Reference 1). The following change applies to the GE 10 CFR 50.46 LOCA methodology since the last PPL Susquehanna, LLC 10CFR50.46 report (Reference 2).

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Reference 3 did not contain any Peak Cladding Temperature (PCT) changes that applied to Susquehanna SES. However, a change in PCT, due to an error in the SAFER analyses, was reported to PPL Susquehanna, LLC in October of 2000 by General Electric. The specific change in PCT for Susquehanna SES due to the error in the SAFER analyses is 5°F. Table 1 provides a description of the change. The total error listed in the last column of Table 1 does not meet the significance threshold for change (50°F) identified in 10 CFR 50.46(a)(3)(i) for which a 30-day report is required.

Table 1
General Electric SAFER/GESTR-LOCA
Changes and/or Errors in Calculated ECCS Performance

Description of Change/Error	Estimated ΔPCT (°F)	Absolute Value of ΔPCT (°F)
LPCI Leakage Flow Unaccounted for in SAFER Analyses.	5	5
Total	5	5

Siemens Power Corporation (SPC) EXEM/BWR LOCA Analysis

In April 1997, the SPC EXEM/BWR LOCA methodology (Reference 4) was employed in support of the first reload of SPC ATRIUM-10 fuel at SSES Unit 2. The following change applies to the SPC 10 CFR 50.46 LOCA methodology since the last PPL Susquehanna, LLC 10CFR50.46 report (Reference 2).

Reference 5 reports PCT changes that cover all SPC BWR LOCA analyses through December 31, 1999. All non-zero PCT errors identified in Reference 5 were previously reported in Reference 2. Subsequently, one change in PCT, due to an error in the HUXY code, was reported to PPL Susquehanna, LLC in September of 2000. The specific change in PCT for the Susquehanna SES due to the error in the HUXY code is -5°F. Table 2 provides a description of the change. The total error listed in the last column of Table 2 does not meet the significance threshold for change (50°F) identified in 10 CFR 50.46(a)(3)(i) for which a 30-day report is required.

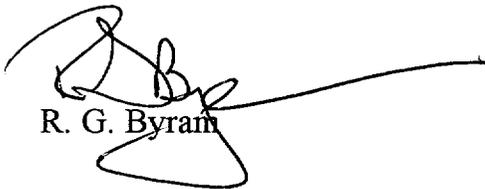
Table 2
Siemens Power Corporation EXEM/BWR LOCA Analysis
Changes and/or Errors in Calculated ECCS Performance

Description of Change/Error	Estimated Δ PCT (°F)	Absolute Value of Δ PCT (°F)
Incorrect Implementation of Strain Correlations in HUXY.	-5	5
Total	-5	5

PPL Susquehanna, LLC will continue to track future changes to the evaluation models used in the above LOCA analyses to ensure that the PCT values remain below the 10 CFR 50.46 limit, and to ensure that the 10 CFR 50.46 reporting requirements are met.

Please contact Mr. R. D. Kichline at (610) 774-7705, if there are any questions concerning this letter.

Sincerely,



R. G. Byram

copy: NRC Region I
Mr. J. Hansell, NRC Acting Sr. Resident Inspector
Mr. R. G. Schaaf, NRC Sr. Project Manager