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U. S. Nuclear Regulatory Commission
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**SUSQUEHANNA STEAM ELECTRIC STATION
10 CFR 50.46 REPORT – 30-DAY REPORT AND
ANNUAL REPORT
PLA-5553**

**Docket Nos. 50-387
and 50-388**

- References:*
- 1) *Letter from R. G. Byram (PPL) to the U. S. Nuclear Regulatory Commission, "10 CFR 50.46 Report", dated November 12, 2001 (PLA-5390).*
 - 2) *Letter from J. F. Mallay (FRA-ANP) to Chief, Planning, Program and Management Support Branch of the U.S. Nuclear Regulatory Commission, "2001 – Annual Reporting of Changes and Errors in ECCS Evaluation Models", dated February 28, 2002.*

This report is being sent in accordance with 10 CFR 50.46 (a)(3)(ii). 10 CFR 50.46 (a)(3)(ii) requires a 30-day report for significant changes (>50° F) to or errors in evaluation models used for calculating Emergency Core Cooling System (ECCS) performance. 10 CFR 50.46(a)(3)(ii) also 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. Additionally, a proposed schedule is required for reanalysis or identification of other actions necessary to show compliance with 50.46 requirements.

General Electric SAFER/GESTR-LOCA – Annual Report

This methodology was applicable to Susquehanna SES Unit 1 until the March 2002 refueling outage, at which time the last of the FRA-ANP 9x9-2 fuel was removed from the core. Unit 2 has not contained 9x9-2 fuel since before the last report (Reference 1). Subsequent to the submittal of the last annual 10 CFR 50.46 report (Reference 1), two non-zero PCT changes were reported by GE/GNF to PPL Susquehanna, LLC. The specific changes in PCT for Susquehanna SES are provided in Table 1. 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); therefore, a 30-day report is not required.

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Table 1
GE/GNF SAFER/GESTR LOCA Analysis
Changes and/or Errors in Calculated ECCS Performance
(Susquehanna Unit 1)

Description of Change/Error	Estimated Δ PCT (°F)	Absolute Value of Δ PCT (°F)
SAFER Core Spray Injection Elevation Error	40	40
SAFER Bulk Water Level Error	5	5
Total	45	45

Framatome-ANP (FRA-ANP) EXEM/BWR LOCA Analysis – 30 Day and Annual Report

This methodology is applicable to both Susquehanna SES Unit 1 and Unit 2.

After the submittal of the last annual 10 CFR 50.46 report (Reference 1), four non-zero PCT changes were reported to PPL Susquehanna, LLC. The specific changes in PCT for the Susquehanna SES are provided in Table 2. The first listed error was reported on Reference 2. The last three errors were reported to PPL on October 12, 2002. The total error listed in the last column of Table 2 exceeds the significance threshold for change (>50°F) identified in 10 CFR 50.46(a)(3)(i); therefore, this letter constitutes the required 30-day report required by 10 CFR 50.46 (a)(3)(ii). Concurrently, the annual report requirement is met by this letter.

The cumulative effect of the errors/changes given in Table 2 is to decrease the calculated PCT by approximately 25°F. Thus, the current licensing basis PCT is conservative and no further actions are required.

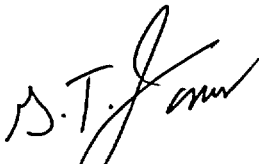
Table 2
Framatome-ANP EXEM/BWR LOCA Analysis
Changes and/or Errors in Calculated ECCS Performance
(Susquehanna Unit 1 and Unit 2)

Description of Change/Error	Estimated Δ PCT (°F)	Absolute Value of Δ PCT (°F)
Automation of LOCA Calculation Process	-24	24
Initial Fuel Temperature Reduction in RELAX	-4	4
Steam/Feedwater Flow Rate Corrected in RELAX	13	13
Boundary Condition data write frequency increased in RELAX system calculation.	-10	10
Total	-25	51

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. C. T. Coddington at (610) 774-4019, if there are any questions concerning this letter.

Sincerely,



G. T. Jones

copy: NRC Region I
 Mr. S. L. Hansell, NRC Sr. Resident Inspector
 Mr. T. G. Colburn, NRC Sr. Project Manager
 Mr. R. Janati, DEP/BRP