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U. S. Nuclear Regulatory Commission
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10 CFR 50.46

SUSQUEHANNA STEAM ELECTRIC STATION
10 CFR 50.46 - ANNUAL REPORT
PLA-7713

Docket Nos. 50-387
and 50-388

Reference 1: "Susquehanna Steam Electric Station 10 CFR 50.46 – Annual Report PLA-7606," dated June 7, 2017 (ADAMS Accession No. ML17158B382).

2: Framatome Record FS1-0037122, Revision 1.0, "10 CFR 50.46 PCT Error Reporting for Susquehanna Units," dated April 24, 2018

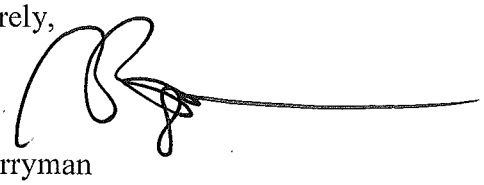
Pursuant to the reporting requirements of 10 CFR 50.46(a)(3)(ii), Susquehanna Nuclear, LLC is submitting the Emergency Core Cooling System (ECCS) evaluation model annual report for Susquehanna Steam Electric Station (SSES) Units 1 and 2. The attached report summarizes the nature of and estimated effect of any changes or errors in the ECCS model for the period April 27, 2017 through April 24, 2018 for SSES Units 1 and 2.

Since the last 10 CFR 50.46 annual report dated June 7, 2017 (Reference 1), there have been no Peak Cladding Temperature (PCT) changes reported to SSES and no modeling or error corrections to the ECCS evaluation method. The current licensing basis PCT remains in compliance with 10 CFR 50.46 requirements.

There are no new regulatory commitments contained in this submittal.

If you have any questions regarding this letter, please contact Mr. Jason Jennings, Manager - Nuclear Regulatory Affairs, at (570) 542-3155.

Sincerely,



B. Berryman

Attachment – 10 CFR 50.46 ECCS Evaluation Model Annual Report for SSES Units 1 and 2

Copy: NRC Region I
Ms. T. E. Hood, NRC Project Manager
Ms. L. Micewski, NRC Sr. Resident Inspector
Mr. M. Shields, PA DEP/BRP

Attachment to PLA- 7713

10 CFR 50.46 ECCS Evaluation Model Annual Report for SSES Units 1 and 2

BACKGROUND

In accordance with 10 CFR 50.46(a)(3)(ii), this annual report summarizes the nature of and estimated effect of any changes or errors in the Emergency Core Cooling System (ECCS) model for the period April 27, 2017 through April 24, 2018 for Susquehanna Steam Electric Station (SSES) Units 1 and 2.

DISCUSSION

The ECCS performance evaluation method applicable to both SSES Units 1 and 2 is the Framatome EXEM BWR-2000 LOCA Methodology.

For the reporting period of April 27, 2017 to April 24, 2018, there have been no reportable changes for 10 CFR 50.46 as stated in Reference 2.

The total change 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.

IMPACT

Table 1
Non-Zero Changes and/or Errors in Calculated ECCS Performance
Evaluation Model: Framatome EXEM BWR-2000 LOCA Methodology

Description of Change/Error	Estimated ΔPCT (°F)	Absolute Value of ΔPCT (°F)
HUXY capability enhancement to model each fuel rod individually (Reported in Reference 1)	-1	1
Total	-1	1

CONCLUSION

As documented in Table 1, the SSES Units 1 and 2 Loss of Coolant Accident Analysis Peak Clad Temperature (PCT) remains in compliance with 10 CFR 50.46(b)(1), which requires that the PCT not exceed 2200°F.