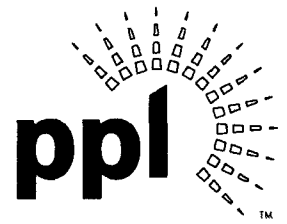


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APR 26 2011

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Mail Stop O-P1-17
11555 Rockville Pike
Rockville, MD 20852

**SUSQUEHANNA STEAM ELECTRIC STATION
RADIOACTIVE EFFLUENT RELEASE REPORT
AND OFFSITE DOSE CALCULATION MANUAL
PLA-6710**

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

In accordance with 10 CFR 50.36a (a)(2) and the Susquehanna Steam Electric Station (SSES) Units 1 and 2 Technical Specification (TS) 5.6.3, attached is the annual Radioactive Effluent Release Report for SSES Units 1 and 2 for the period covering January 1 through December 31, 2010. Additionally, in accordance with TS 5.5.1.C.3, attached is a copy of the Offsite Dose Calculation Manual as revised through December 31, 2010.

Should you have any questions or require additional information, please contact Mr. John J. Petrilla, Acting Manager – Nuclear Regulatory Affairs at (570) 542-3796.

A handwritten signature in black ink, appearing to read "Timothy S. Rausch", written over a circular scribble.

T. S. Rausch

Attachment 1: Radioactive Effluent Release Report for SSES Units 1 and 2
Attachment 2: Offsite Dose Calculation Manual

Copy: Mr. D. J. Allard, DEP/BRP
Mr. S. J. Collins, NRC Region I, Regional Administrator
Mr. P. W. Finney, NRC Sr. Resident Inspector
Mr. J. T. Furia, NRC Region I, Senior Health Physicist
Mr. R. R. Janati, DEP/BRP
Ms. T. Lewis, DEP/BRP
Mr. R. Maiers, DEP/BRP
Mr. W. Nestel, INPO
Ms. D. Russo, ANI
Mr. B. K. Vaidya, NRC Project Manager

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