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AUTH. NAME AUTHOR AFFILIATION
 BYRAM, R.G. Pennsylvania Power & Light Co.
 RECIPIENT NAME RECIPIENT AFFILIATION
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SUBJECT: Provides clarifications of proposed amends 176 & 130 re
 minor reload methology changes at request of G Thomas.

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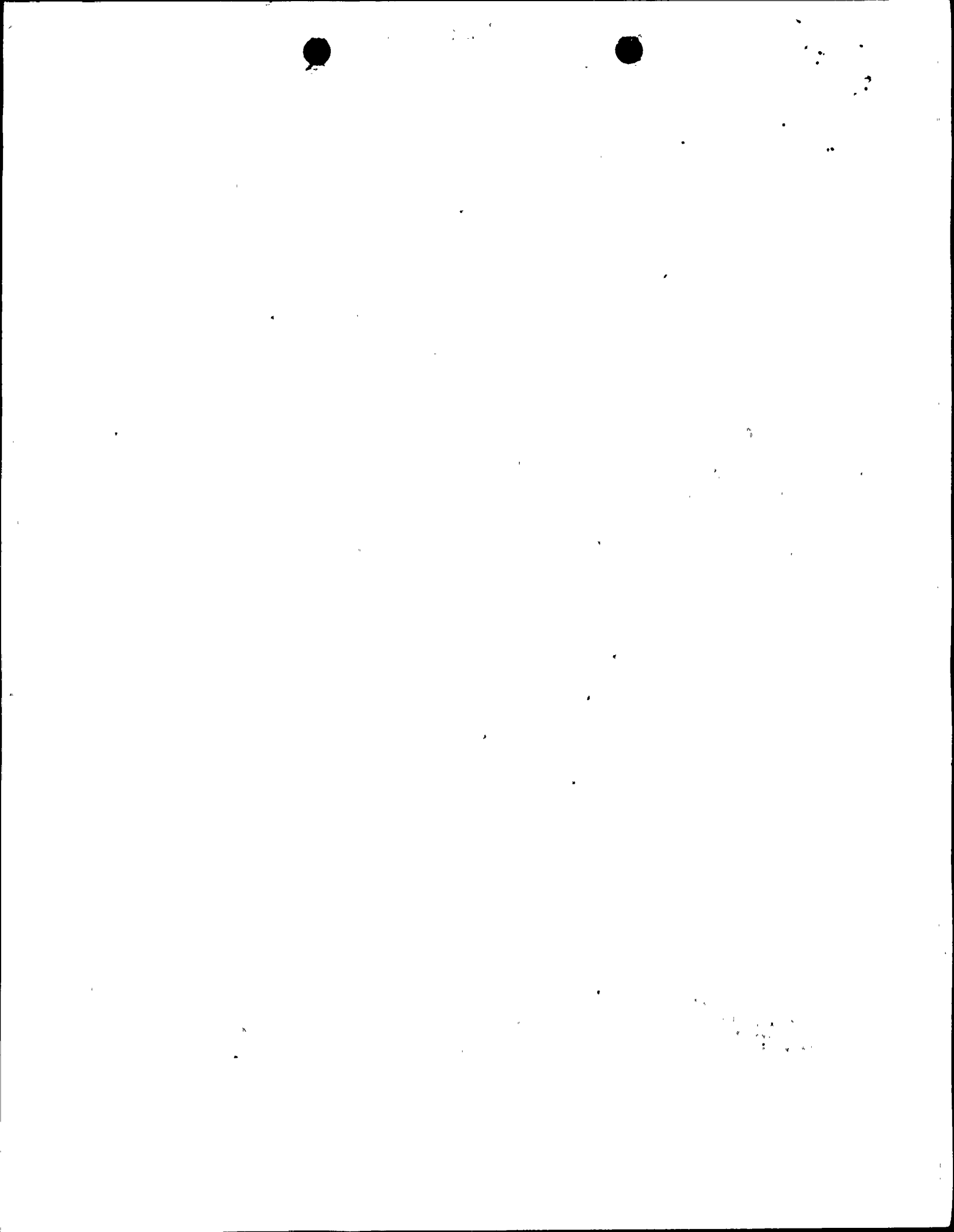
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Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

Robert G. Byram
Senior Vice President—Nuclear
610/774-7502
Fax: 610/774-5019

DEC 29 1994

U.S. Nuclear Regulatory Commission
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**SUSQUEHANNA STEAM ELECTRIC STATION
CLARIFICATIONS REGARDING PROPOSED
AMENDMENTS 176 (NPF-14) AND 130 (NPF-22):
MINOR RELOAD METHODOLOGY CHANGES
PLA-4241 FILES A17-2/R41-2**

Docket Nos. 50-387
and 50-388

Reference: PLA-4218, R.G. Byram to U.S. NRC, "Proposed Amendment No. 176 to License No. NPF-14 and No. 130 to License No. NPF-22: Addition of Reference PL-NF-90-001, Supplement 1 to Section 6.9.3.2", dated October 28, 1994.

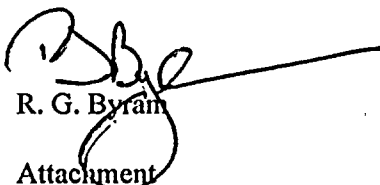
Dear Sir:

The purpose of this letter is to provide the following clarifications of the referenced proposal at the request of Mr. G. Thomas of NRR/SRXB:

1. Section 3.0 of PL-NF-90-001, Supplement 1 refers to a conservative generic correlation given in Section 2.3 of PL-NF-90-001-A, July 1992. The correlation being referred to is Equation 2.3-2, as shown on the attached page from the subject report.
2. Section 3.2 of PL-NF-90-001, Supplement 1 states that PP&L will continue to use the above correlation (Section 2.3 of PL-NF-90-001-A, Equation 2.3-2) for future reload analyses to calculate Δ CPR for the LOFWH event. PP&L is proposing to discontinue the additional requirement to perform confirmatory analyses using SIMULATE-E that PP&L established and documented in PL-NF-90-001-A.

If you have any further questions, please contact Mr. R. Sgarro at (610) 774-7914.

Very truly yours,


R. G. Byram
Attachment

9501040149 941229
PDR ADCK 05000387
P PDR

ADD 1

cc: NRC Region I
Mr. C. Poslusny, Jr., NRC Sr. Project Manager - OWFN
Ms. M. Banerjee, NRC Sr. Resident Inspector - SSES
Mr. G. Thomas, NRC/SRXB - OWFN
Mr. W. P. Dornsife, PA DER

insensitive to cycle exposure or control rod pattern. The results from these calculations are shown graphically in Figure 2.3-1. Due to the high degree of correlation between the post-transient core MCPR and the pre-transient core MCPR, a regression analysis was performed using the two variables. The resulting regression line is:

$$\text{MCPR}_i = 1.108 * \text{MCPR}_f - 0.051 \quad \text{Eq. 2.3.1}$$

where: MCPR_i = pre-transient core MCPR

MCPR_f = post-transient core MCPR

The largest deviation from the regression line for all cases analyzed was less than 2%. The mean square error from the analysis was 0.000096, indicating a high degree of accuracy in the fit.

Tolerance limits on the regression analysis were generated such that, with 95% confidence, 95% of the residuals will be bounded by the limits. The tolerance limits were evaluated for the regression line and are plotted with the data in Figure 2.3-2. Note that all of the data is bounded by the tolerance limits. Throughout the range of interest, this tolerance interval is bounded by a constant adder of 0.024. For simplicity of application, a constant of 0.024 will be added to the resulting pre-transient core MCPR to adequately cover analysis uncertainty. Thus, Equation 2.3.1 becomes:

$$\text{MCPR}_i = 1.108 \text{MCPR}_f - 0.027 \quad \text{Eq. 2.3-2}$$

The RCPR for the transient is defined as:

