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 AUTH. NAME AUTHUR AFFILIATION
 CURTIS, N.W. Pennsylvania Power & Light Co.
 RECIPIENT NAME RECIPIENT AFFILIATION
 YOUNGBLOOD, B.J. Licensing Branch 1

SUBJECT: Requests approval of Code Case 1481-1, "Elevated Temp Design of Section III, Div 1, Class 2 & 3 Components." Provides technical justification.

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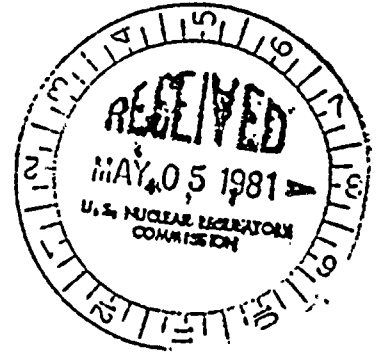
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PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 770-5151

NORMAN W. CURTIS
Vice President-Engineering & Construction-Nuclear
770-5381

April 28, 1981



Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
REQUEST FOR APPROVAL OF CODE CASE 1481-1
ER 100450 FILE 526-M-30
PLA-747

Dear Mr. Youngblood:

This is to request approval by the NRC of Code Case 1481-1 entitled "Elevated Temperature Design of Section III, Division I, Class 2 and 3 Components." Following are the technical justifications for this request:

1. Article ND-3600 of ASME III does not permit material to be used at metal and design temperatures above the allowable stress values given in Appendix Table I-7.2. The allowable stress data from this table is available up to 700°F.
2. The diesel-generator exhaust system material used on Susquehanna project is SA 155-KC 70-Class 1, ASME III, Safety Class 3, Seismic Category I, 150 lb. ANSI rating and carbon steel. The material plate specification and grade designation of SA 155 KC 70 Class 1 are SA 515 and Grade 70 respectively per ASTM Table 1 of SA 155 (1971 through 1974 Edition). The operating and design temperatures of the diesel exhaust are 950°F and 1000°F respectively.
3. Code Case 1481-1, approved in March 1976, allows the extension of the allowable stress values in Appendix Table I-7.2 to higher temperatures by using the values contained within the various stress tables of ASME Section VIII, Division I.
4. The intermittent nature of the diesel operation should preclude the carbide phase of carbon steel (SA 515) from converting into graphite, ref. Note 27 from ASME Section VIII (1971 through 1974 Edition), Table UCS-23.

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PENNSYLVANIA POWER & LIGHT COMPANY

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Mr. B. J. Youngblood

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April 28, 1981

In view of the above technical justifications for the use of allowable stress values at elevated temperatures for the SSES diesel exhaust material and as permitted by Code Case 1481-1, PP&L hereby requests NRC approval of the use of Code Case 1481-1 for diesel generator exhaust piping on the Susquehanna Project.

Very truly yours,

A handwritten signature in cursive script that reads "N. W. Curtis".

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

RRS/mcb