



Pennsylvania Power & Light Company

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Bruce D. Kenyon
Vice President-Nuclear Operations
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AUG 25 1982

Mr. T. T. Martin
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
MEETING WITH REGION I
ER 100450 FILE 841-4
PLA-1245

Docket Nos. 50-387
and 50-388

Reference: PLA-1224

Dear Mr. Martin:

A meeting was held between PP&L, Bechtel and the NRC at your offices on 8/11/82 to discuss the following (reference PLA-1224):

- 1) Small piping/equipment nozzle loadings
- 2) Stress Intensification Factors (SIF) for small pipe
- 3) Penetration grouting and treatment of penetrations in stress analyses

Meeting attendees are listed in Attachment 1. The meeting was opened with introductory remarks by W. E. Barberich and T. M. Crimmins of PP&L indicating the agenda was limited to discussions of these three items. Issues of concern relative to program problems would be addressed in a subsequent PP&L report.

Handouts (attachments 2, 3, 4 & 5) on each item, outlining the approach used, were provided on each subject.

A presentation (attachment 2) of the design approach used for small piping/equipment nozzle loadings was made by Larry Shipley of Bechtel. After all questions on this subject had been discussed and resolved, the NRC indicated they had been discussed and resolved, the NRC indicated they had no further concerns with this issue and both the NRC and PP&L consider this item closed.

A presentation (attachment 3) of the design approach used on SIFs for small pipe was made by Mo Khlafallah of Bechtel. After discussion, the NRC indicated they had no further concerns with the approach used but PP&L needed to demonstrate

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to the NRC's satisfaction that all the requirements of footnote 6 to the SIF table (NC-3673.6) of the ASME Code, Section III have been met or a factor of safety of two must be demonstrated for the worst case piping configuration. The NRC also indicated they would consider alternate measures of demonstrating this.

A presentation (attachments 4 & 5) of the design approach used for penetration grouting and treatment of penetrations in stress analyses was made by Raj. Parekh of Bechtel. After all questions on this subject had been discussed and resolved, the NRC indicated they had no further concerns with the design approach but might pursue field implementation of the design approach. We consider this item closed.

Very truly yours,



B. D. Kenyon
Vice President-Nuclear Operations

WEB/mks

Attachments

cc: G. Rhoads - USNRC
R. Perch - USNRC

8/11/82

NAME	TITLE	REPRESENTATIVE
J. P. DARR	CHIEF, MEPS	USNRC
D. TERAO	Mechanical Engineer	NRC/NRR/11
A. R. School	Mgr. NQA PP&L	PP&L
J. F. McCann	NRC Resident	NRC
L. N. Arrow	Reactor Inspector	NRC
R. L. PERCH	PROJECT MANAGER	NRR/DL/LB2
W. E. BARBERICH	MGR - Nuc. LIC.	PP&L
B. MUKHERJEE	RESIDENT ENG. P/D	BECHTEL
R. PAREKH	PLANT DESIGN GR. SUPV.	BECHTEL
M. KHLAFALLAH	STRESS GROUP SUPERVISOR	BECHTEL
LE SHIPLEY	BECHTEL, PIPING	BECHTEL
T. M. CRIMMINS	PP&L - EUGEN	PP&L
W. J. Rhoades	PP&L - NPE	"
S. K. CHAUDHARY	SR. RESIDENT INSP., Limerick	US-NRC
C. Lowbill	SRI Dunbar Creek. acting for Chief RPS-20	US-NRC
R. Keimes	CHIEF Projects Branch 2 DPRP	US-NRC

NOZZLE LOADS

EQUIPMENT WITH NOZZLE LOAD ALLOWABLES

HISTORICAL DATA/VENDOR CRITERIA

DYNAMIC PIPE ANALYSIS IS DONE

SATISFACTION OF INDIVIDUAL ALLOWABLES

VENDOR APPROVAL ON ALL NOZZLES

EQUIPMENT WHERE VENDOR ALLOWABLES ARE NOT AVAILABLE

PIPE ANALYSIS IS TYPICALLY DONE BY SPAN CRITERIA-CODE ALLOWABLES

SPAN CRITERIA IS VERY CONSERVATIVE

THE ACTUAL LOADS FROM PIPE ARE SMALL

CONCLUSION:

NOZZLES ARE ACCEPTABLE

STRESS INTENSIFICATION FACTOR

AT BRANCH CONNECTIONS

S.P. SIMPLIFIED CRITERIA

DOCUMENT USED, M-241

BASIS OF M-241

BP-TOP-1 . . . APPROVED BY NRC

DEMONSTRATES THAT SIMPLIFIED ANALYSIS IS CONSERVATIVE BY
A FACTOR UP TO 4.

STRESS INTENSIFICATION FACTORS IN M-241

BASED ON SIF FOR SOCKET WELDING JOINTS AS FOLLOWS

CLASS 1, 1" AND UNDER . . . 2:1

. BASED ON ASME 1975 SUMMER ADDENDA

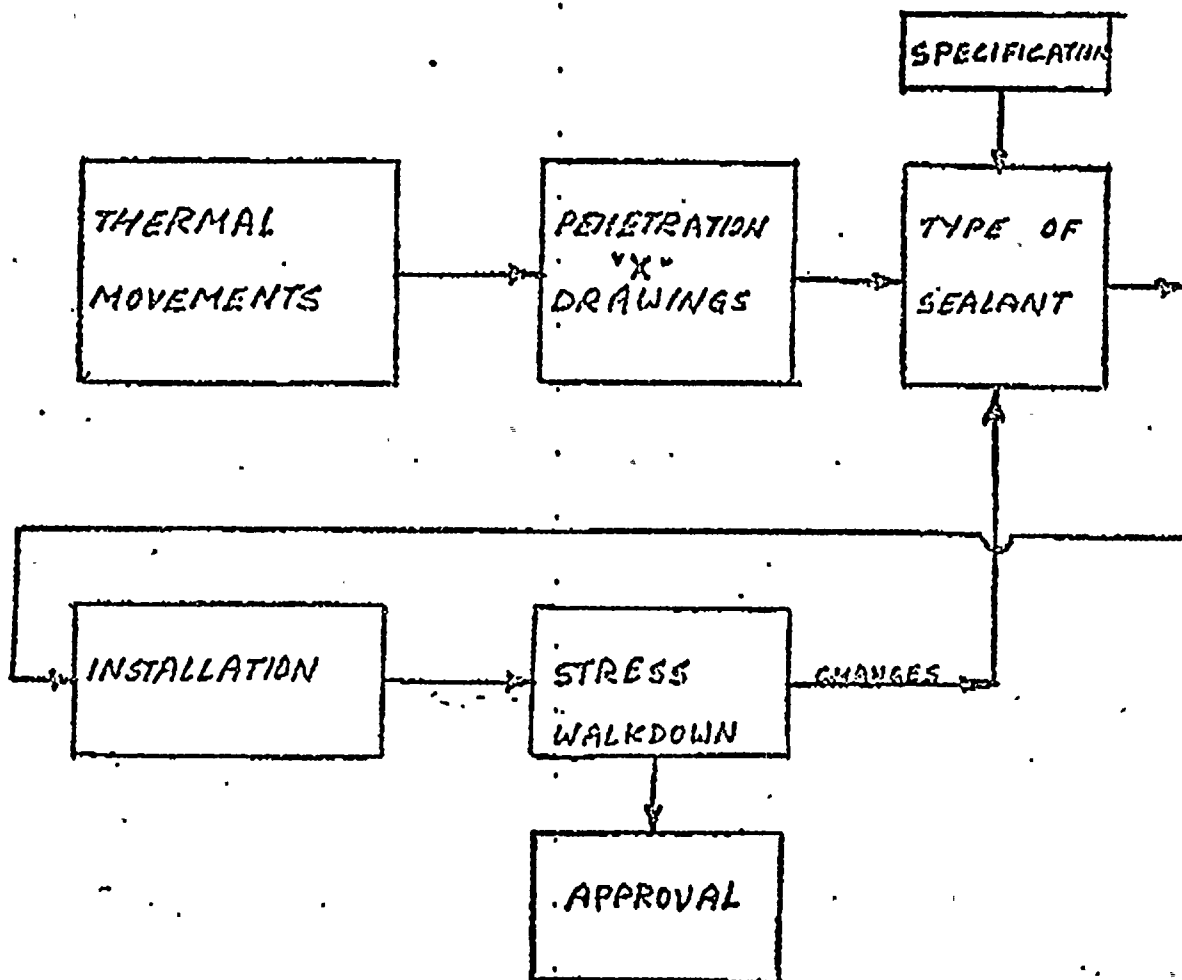
. CLASS 2 & 3 . . . 1.3 BASED ON 1972 WINTER ADDENDA

SOURCES OF OTHER CONSERVATISM IN M-241

BUILDING ENVELOPES

GEOMETRY ADJUSTMENT FACTORS

CONCLUSION:INHERENT CONSERVATISM IN M-241 CRITERIA ADEQUATELY ACCOUNTS
FOR THE EFFECTS OF BRANCH CONNECTION SIF's.

PIPING PENETRATION SEALING PROGRAM.

ATTACHMENT 3
PIPING PENETRATION SEALING PROGRAM

SUMMARY:

PIPING MOVEMENTS AT THE PENETRATIONS DICTATE THE SEALING METHOD.

INSIGNIFICANT MOVEMENT ALLOWS GROUTING,

SIGNIFICANCE OF PIPING MOVEMENT IS DECIDED BY STRESS ANALYSIS

VERIFICATION OF MOVEMENT REQUIREMENTS AT PENETRATIONS IS CHECKED AND CONFIRMED BY THE STRESS ANALYSIS GROUP BY FIELD WALKDOWN OF PIPING SYSTEMS.

CONCLUSIONS:

THE PIPING PENETRATION SEALING PROGRAM IS ADEQUATE AND MEETS THE STRESS ANALYSIS REQUIREMENTS.

A COMPLETE REVIEW OF ALL GROUTED PENETRATIONS SUBSEQUENT TO NRC AUDIT INDICATES COMPLIANCE WITH STRESS ANALYSIS REQUIREMENTS.

ONE PENETRATION IDENTIFIED AS REQUIRING GROUT REMOVAL DURING STRESS WALKDOWN BUT IN COMPLIANCE WITH THE SEALING CRITERIA; BEING DISPOSITIONED VIA PP&L NCR PROCEDURE.

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8/10/82

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