

February 4, 1983

Lawrence Brenner, Esq.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. James L. Carpenter
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Peter A. Morris
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

In the Matter of
Long Island Lighting Company
(Shoreham Nuclear Power Station, Unit 1)
Docket No. 50-322 (OL)

Dear Administrative Judges:

Enclosed is the latest set of Teledyne Engineering Services proposed findings related to Shoreham which the Staff has received to date. The enclosed proposed findings are dated January 31, 1983.

Sincerely,

Bernard M. Bordenick
Counsel for NRC Staff

Enclosure:
As stated

cc: w/enclosure
Daniel F. Brown, Esq.
W. Taylor Reveley, III, Esq.
Herbert H. Brown, Esq.
MHB Technical Associates, Inc.
Mr. Brian McCaffrey

cc: w/o enclosure
 Matthew J. Kelly, Esq.
 Howard L. Blau, Esq.
 Cherif Sedkey, Esq.
 Atomic Safety and Licensing
 Board Panel
 Karla Letsche, Esq.
 Edward M. Barrett, Esq.
 Marc W. Goldsmith
 Hon. Peter Cohalan
 Docketing and Service Section

Ralph Shapiro, Esq.
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 Appeal Board Panel
 Lawrence Coe Lanpher, Esq.
 Mr. Jeff Smith
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DS07

OFC	:OELD	<i>BB</i>	:OELD	:	:	:
NAME	:BBordenick/sab		:EReis	<i>EReis</i>	:	:
DATE	:02/4/83		:02/4/83	:	:	:

R. Malonson 314

**TELEDYNE
ENGINEERING SERVICES**

130 SECOND AVENUE

WALTHAM, MASSACHUSETTS 02254

(617) 890-3350 TWX (710) 324-7580

January 31, 1983
5633-41

214
8-1

Mr. Harold Denton
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20114

Subject: Independent Design Review for the Shoreham Nuclear Power Station

Reference: TES Engineering Procedure EP-1-017

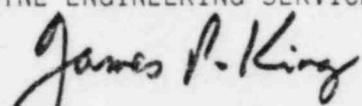
Gentlemen:

In accordance with the requirements of the referenced procedure we are forwarding the Findings resulting from the January 31, 1983 meeting of the Teledyne Engineering Services (TES) Independent Review Committee.

If you have any questions concerning this transmittal, please do not hesitate to contact Mr. Donald F. Landers or the writer.

Very truly yours,

TELEDYNE ENGINEERING SERVICES



James P. King
Assistant Project Manager

JPK/ao
Attachments

cc: D.F. Landers (TES)
J.H. Malonson (TES)
TES Document Control

NOS 3/10/83

- Transmittal - Please Sign and Return Acknowledgement
- Request for Information (RFI)
When Requested Assign Control Number
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Page 1 of 1
Control No. _____

Originator J.P. KING Transmitt To: MR. H.R. DENTON
 Project No. 5633 OFFICE OF NUCLEAR REACT. REG.
 Date JAN. 31, 1983 U.S.N.R.C.
 Client PO 363981 7920 NORFOLK AVE
 Transmitted Under Separate Cover To: M. MILLIGAN (LUD) BETHESDA, MD 20114

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QTY	TYPE	ITEM IDENT NO.	REV	DESCRIPTION - Title and Number of Sheets/Pages	REMARKS	
1	PKG.	ICR: 5633 - 28 WITH THE FOLLOWING APPLICABLE FORMS:				
		RRF: 5633-145				
		PMR: 5633-145				
		RRF: 5633-145 REV. 1				
		PMR: 5633-145 REV. 1				

ACKNOWLEDGEMENT OF RECEIPT BY _____ TITLE _____ DATE _____

- DISPOSITION FOR PREVIOUS REVISIONS
- Return to TES
 - Mark Void
 - Destroy
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NOTE TO ADDRESSEE: Unless stated otherwise the listed items are furnished to you as Controlled Documents. Please sign and return the number 2 copy to:

TELEDYNE ENGINEERING SERVICES
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 Attention: Document Control, Project 5633

Enclosure (1)
EP-1-017

Independent Design Review
Shoreham Nuclear Power Station
Internal Committee Resolution Form

CONTROLLED DOCUMENT

ICR No.
5633- 28

Date: 1-31-83

Reference: RRF No. 5633- 145, Rev. 2

PMR No. 5633- 145, Rev. 1

Internal Committee Resolution:

The internal committee agrees with the reviewer and project Manager.

Classification of Item after Committee Resolution: Finding

James A. Flaherty
Committee Chairman Signature

D.F. Landrus
Project Manager Signature

Frank D. Hill
Committee Member Signature

Jay M. [Signature]
Committee Member Signature

Enclosure (1)
EP-1-017

-17-

Independent Design Review
Shoreham Nuclear Power Station
Reviewer Report Form

TELEDYNE ENGINEERING SERVICES
CONTROLLED
DOCUMENT

TES PROJ. NO. 5633
DATE 1.28.83

RRF No.
5633-145

Reviewer Name: Leo Barrow

Date: 9.27.82

Classification of Item (Per 3.8.1): OPEN

Reference Documents: PACKAGE Ax-10A-2
Comp. Rev R1649450 7.10.82

Description of Item: Operating Value #7

Has modulus = 25.8 , $\alpha = 0.055$

these values are from a temp higher than 546°F
~~that of the pipe~~ (546 is max normal & upset peak)

but branch lines using OPU 7 connect
to pipes @ 546° & 170°

Leo Barrow

Enclosure (1)
EP-1-017

Independent Design Review
Shoreham Nuclear Power Station
Project Manager Resolution Form

TELEDYNE ENGINEERING SERVICES
CONTROLLED
DOCUMENT

TES PROJ. NO. 5633
DATE 1.28.83

PMR No.
5633-145

Reference RRF No. 5633-145

Date: 9/29/82

Description of Resolution:

REVIEWER TO LIST MAT'L & OPER. COND.
CONSIDERED FOR ALL BRANCH LINES. ALSO LIST
OPER. COND. THAT SHOULD BE CONSIDERED

Classification of Item after Resolution: OPEN

Les Barron

Reviewer Signature

D. F. Landrus

Project Manager Signature

Enclosure (1)
EP-1-017

Independent Design Review
Shoreham Nuclear Power Station
Reviewer Report Form

TELEDYNE ENGINEERING SERVICES
CONTROLLED
DOCUMENT

TES PROJ. NO. 5633
DATE 1.31.83

RRF No.
5633- 145 REV-1
(PAGE 1)

Reviewer Name: Lee BARRON

Date: 1/27/83

Classification of Item (Per 3.8.1): OPEN

Reference Documents: PACKAGE AX-10A-2

DESCRIPTION : INCONSISTENCIES IN BRANCH LINE AND
TIE BACK MODELING

DETAIL "A" (of WORKSKETCH)

- SUPPORT NOT INSTALLED BUT INCLUDED IN ANALYSIS
 - BRANCH LINE $\frac{3}{4}$ K-288-901A-2 LOCATED WITHIN SEVERAL FT. OF R.P.V. NOZZLE WAS MODELED AT AMBIENT TEMPERATURE OF 120° THROUGHOUT.
- | | | | |
|-------------|-----------------------------|-------------|------|
| RUN PIPE | 10WR-40-901A-1 | DESIGN TEMP | 546° |
| BRANCH LINE | $\frac{3}{4}$ WR-288-901A-2 | " " | 546 |

DETAIL "B"

- THERE IS A SECTION OF THE BRANCH LINE AT 120° LOCATED BETWEEN 570° AND 546° PIPE
 - TIE BACK ATTENUATED FROM 546°
- | | | | |
|-------------|----------------------------|-------------|-----|
| RUN PIPE | 10WR-37-901A-1 | DESIGN TEMP | 546 |
| BRANCH PIPE | $\frac{3}{4}$ WR-90-901A-1 | " " | 546 |

----- CONT. ON pg 2 -----
Reviewer Signature

Enclosure (1)
EP-1-017

Independent Design Review
Shoreham Nuclear Power Station
Reviewer Report Form

RRF No.
5633-145 REV-1
(Pg 2)

Reviewer Name: Leo BARRON

Date: 1/27/83

Classification of Item (Per 3.8.1): Open

Reference Documents: PACKAGE AX - 10A-2

DETAIL "C"

- TIE BACK MODELED AS STAINLESS STEEL AT 546° (NO ATTENUATION). THIS IS INCONSISTENT WITH WEST LEAD. (SKETCHES ONLY SPECIFY TUBE STEEL NO INDICATION OF STAINLESS)
- PORTION OF BRANCH PIPE MODELED AS STAINLESS WHILE DESIGN SPEC INDICATES CARBON STEEL.
- IMPROPERLY MODELED PSR-091 MAY HAVE EFFECTS ON BRANCH PIPE STRESSES (EFFECTS ON RUN PIPE WERE CONSERVATIVE REFER TO RRF 5633-137 (CLOSED)). INCORRECTLY MODELED PSR-091 RESTRAINS AXIAL GROWTH OF RUN PIPE.

DETAIL "D"

- TIE BACK THERMALLY ATTENUATED FROM 546° WHILE RUN PIPE HAS DESIGN TEMP = 170°
- PORTION OF BRANCH LINE MODELED AT 510° WHILE RUN PIPE IS AT ~~510°~~ 170°

Leo E Barron
Reviewer Signature

Inclosure (1)
EP-1-017

Independent Design Review
Shoreham Nuclear Power Station
Project Manager Resolution Form

TELEDYNE ENGINEERING SERVICES
CONTROLLED
DOCUMENT
TES PROJ. NO. 5633
DATE 1.28.83

PMR No.
5633-145 REV. 1

Reference RRF No. 5633-145, REV. 1

Date: 1/27/83.

Description of Resolution:

PROJECT MANAGER AGREES THAT
ANALYSIS OF THIS MODEL (AX-10A) IS NOT PROPER.
THE WRONG MODELING OF SUPPORT PSR-041 WAS
CLOSED ON RRF 5633-137 ~~WAS~~ CLOSED BECAUSE IT
WAS THE ONLY SUPPORT MODELED IMPROPERLY ON ALL THE
SYSTEMS REVIEWED. THIS SYSTEM HAS A NUMBER OF
ERRORS SOME OF WHICH MAY HAVE GENERIC
IMPLICATIONS.

Classification of Item after Resolution: POTENTIAL FINDING.

Leo E Barron
Reviewer Signature

DF Landry
Project Manager Signature