



# LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

Direct Dial Number

February 16, 1983

SNRC-799

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Response to the Channel Box Deflection Issue  
License Condition Number 8 (Section 4.2.3.13 of the SER)  
Shoreham Nuclear Power Station - Unit 1  
Docket No. 50-322

Reference: NRC letter (A. Schwencer) to LILCO (M. S. Pollock)  
dated October 7, 1982 entitled "Resolution of  
LRG-II Channel Box Deflection Issue"

Dear Mr. Denton:

The Shoreham Nuclear Power Station has developed a channel box management program that is incorporated into the station procedures. This program has been reviewed in response to the above referenced letter. The program was found to be in general compliance with the LRG II resolution of the channel box deflection issue.

The Shoreham Nuclear Power Station Channel box management program will maintain records of channel box location, cumulative exposure as of the last cycle, predicted exposure at the end of a current cycle and monitor adherence to the following general guidelines:

Channels should not reside in the outer row of the core for more than two operating cycles when possible.

Channels that reside in the outer row for more than one cycle should be positioned in core locations that permit different channel sides to face the core edge on successive cycles.

Channels that reside in the outer row of the core for three or more cycles should not be shuffled inward.

BOO1

8302220394 830216  
PDR ADOCK 05000322  
E PDR

Mr. Denton  
page 2

At the beginning of each cycle, the combined (sum of) outer row residence times for any two channels in any control rod cell should not exceed four peripheral cycles.

The station procedures contain channel box exposure guidelines based on channel box type (heat-treated or not) and wall thickness as specified by the current vendor.

During each refueling outage a control rod drive friction test shall be performed for those cells exceeding the above general guidelines or containing fuel channels with exposures greater than the recommended exposure levels.

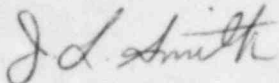
This control rod friction test will detect excessive CRD drive-line friction by the measurement and analysis of the CRD piston-over and piston-under differential pressures as a function of time.

This testing will give an early indication of any interferences and will prompt an investigation into the source of the friction. If necessary, corrective action will be completed before startup after the next core alternation.

In lieu of friction testing, fuel channel deflection measurements may be used to identify the amount of remaining channel lifetime for channels exceeding the previously stated general guidelines and exposure levels.

LILCO believes this response should be sufficient to resolve the license condition for channel box deflection for the Shoreham Nuclear Power Station - Unit 1.

Very truly yours,



J. L. Smith  
Manager, Special Projects  
Shoreham Nuclear Power Station

RT:bc

cc: J. Higgins  
All Parties Listed in Attachment 1

ATTACHMENT 1

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

Herbert H. Brown, Esq.  
Lawrence Coe Lanpher, Esq.  
Karla J. Letsche, Esq.  
Kirkpatrick, Lockhart, Hill  
Christopher & Phillips  
8th Floor  
1900 M Street, N.W.  
Washington, D.C. 20036

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

Mr. Marc W. Goldsmith  
Energy Research Group  
4001 Totten Pond Road  
Waltham, Massachusetts 02154

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

MHB Technical Associates  
1723 Hamilton Avenue  
Suite K  
San Jose, California 95125

Daniel F. Brown, Esq.  
Attorney  
Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Stephen B. Latham, Esq.  
Twomey, Latha. & Shea  
33 West Second Street  
P.O. Box 398  
Riverhead, New York 11901

Bernard M. Bordenick, Esq.  
David A. Repka, Esq.  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Ralph Shapiro, Esq.  
Cammer and Shapiro, P.C.  
9 East 40th Street  
New York, New York 10016

Matthew J. Kelly, Esq.  
State of New York  
Department of Public Service  
Three Empire State Plaza  
Albany, New York 12223