



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

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

November 8, 1982

SNRC-786

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

SER Issue No. 48, High Energy Line Breaks
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Dear Mr. Denton:

As stated in section 7.7 of Supplement No. 1 to the Shoreham Safety Evaluation Report (SER), the Long Island Lighting Company committed to conduct a review to demonstrate that the harsh environments associated with high energy line breaks do not cause control system malfunctions and result in consequences more severe than those of the Chapter 15 analyses or beyond the capability of operators or safety systems.

In fulfillment of this commitment, enclosed are forty (40) copies of a report entitled, "High Energy Line Break/Control System Failure Analysis". This report presents the results of a comprehensive study, including a walkdown of the plant areas, that was conducted (1) to identify non-safety control systems and components that may be affected by postulated pipe breaks, and then (2) to conservatively determine the state of the reactor as a result of the simultaneous failure of all affected non-safety control systems. It is concluded that all conditions resulting from the postulated pipe break events (10 conditions resulting from a postulated pipe break were evaluated individually and in a combination) are bounded by the Chapter 15 analysis. With the exception of the loss of feedwater heating exacerbated by a turbine trip at elevated reactor power levels, the transient events meet the conservative limits of the transient category. It is concluded, based upon analyses, inspection procedures, and operator action, that this event is a low-frequency accident event which is bounded by the accident events of the FSAR Chapter 15. Therefore, the postulated high energy line break, with resulting adverse effects of non-safety control systems, poses no significant risk to the health and safety of the public. No further accident analysis or any design modification is necessary.

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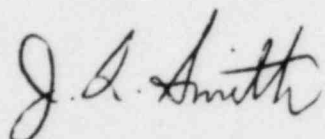
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The submittal of this report completes the confirmatory information required by the Staff to completely close out SER Issue Number 48.

Should you have any questions, please contact this office.

Very truly yours,



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

RJT:mp

Enclosure

cc: J. Higgins
All parties