



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

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

Direct Dial Number

June 29, 1983

SNRC-925

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

Submittal of the Conceptual Design
Modification to the Core Spray Injection
Valve Low Pressure Permissive
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Reference: LILCO letter, SNRC-840 (J. L. Smith) to the NRC
(H. R. Denton), dated February 18, 1983

Dear Mr. Denton:

As stated in the referenced letter, the core spray system injection valve low pressure permissive will be modified prior to return to service after the first refueling outage to address the NRC concerns regarding possible over-pressurization of portions of the system piping. In addition LILCO also committed to submit the proposed conceptual design prior to the implementation of any modifications.

The following is a description of the conceptual design:

Two new pressure switches (one per loop) will be connected to the piping between the primary containment penetration (X-20A or B) and the core spray injection valve (1E21-MOV033A or B), as shown in the enclosed sketch (attachment 2). These pressure switches will be connected to the existing high pressure connection of the old differential pressure (DP) switches. The low pressure connection of the DP switch will be capped. No major wiring changes are necessary; the leads from the old DP switch will be connected to the new pressure switch. All relay logic will remain the same. The proposed injection valve opening set point is 465 psig.

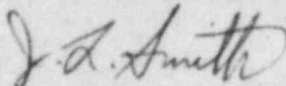
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If the inboard check valve (1E21*AOV081A or B) is not properly seated, the pressure switch will sense reactor pressure and prevent the check valve from opening until reactor pressure falls below 465 psig. General Electric will be requested to review this design to confirm its adequacy with regard to the FSAR Chapter 15 analyses.

LILCO believes that the implementation of this design change will address the NRC concerns regarding overpressurization of the core spray piping, upstream of the motor-operated injection valve and will proceed with detailed engineering based upon this conceptual design. Should any additional information be required, please contact this office.

Very truly yours,



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

RT:bc

Attachment

cc: J. Higgins
All Parties Listed in Attachment 1

ATTACHMENT 1

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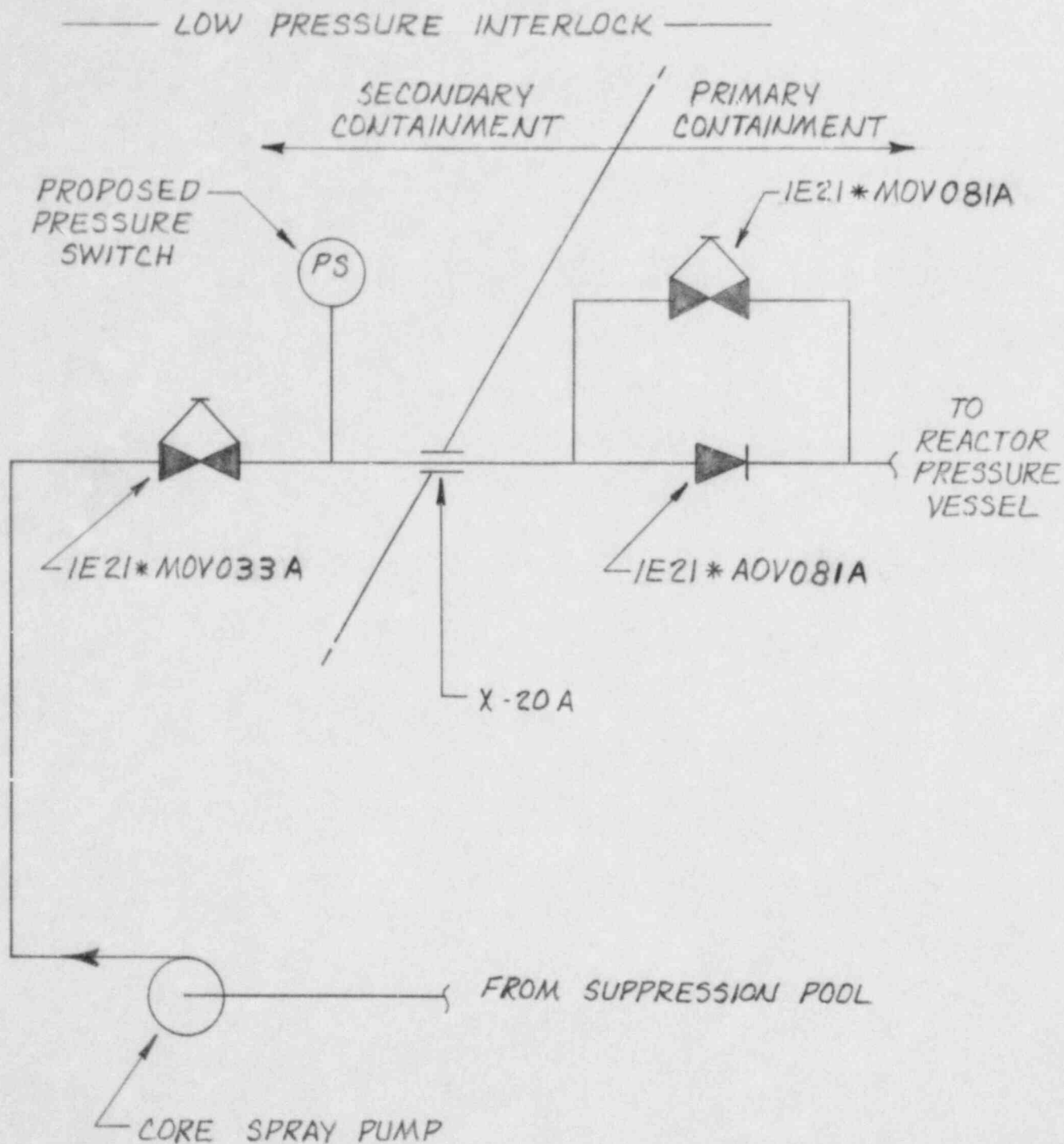
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ATTACHMENT 2

PROPOSED MODIFICATION TO THE CORE SPRAY INJECTION VALVE



NOTE : A LOOP SHOWN
B LOOP SIMILAR