



# LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 518, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

May 7, 1982

SNRC-694

Mr. Ronald C. Haynes  
Office of Inspection & Enforcement  
Region 1  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

SHOREHAM NUCLEAR POWER STATION - UNIT 1  
DOCKET NO. 50-322

Dear Mr. Haynes:

On April 7, 1982, in accordance with 10CFR50.55(e), we reported verbally to Region 1 of a deficiency within HFA type relays manufactured by General Electric Co. This letter serves as our 30-day written report on this deficiency and describes the corrective action to be taken.

Description of Deficiency

In late 1980 we were advised by General Electric Co., Service Advice Letter 721-PSM-152.2 of a possible cracking of Lexan coil spools used in HFA type relays. General Electric Co. informed us that although they had not received any reports of broken coil spools interfering with the operation of HFA relays, they speculated that a cracked coil spool could result in a piece of broken coil spool preventing the desired contact action in response to energizing or de-energizing of the relay.

This SAL had been reviewed for reportability under 10CFR50.55(e) and our analysis indicated that a misoperation of an HFA relay due to a cracked or broken coil spool would be highly unlikely because of the relative locations of the coil bobbins and the contact mechanism. Also, there had been no cases reported where debris from a broken coil had prevented an HFA relay operation.

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The decision for non-reportability was further supported by evidence collected by an on-site survey. A G.E. inspection team examined the 338 HFA relays located on Shoreham's NSSS Control Boards. Of these 338 relays inspected, 29 were found to have broken coil spools and 17 had spools with cracks (total 46). The contact assembly in all 46 of the relays determined to have defective coil spools were free to operate and not obstructed by debris from the coil spool.

A subsequent survey of BOP HFA type relays verified the findings of the NSSS relays.

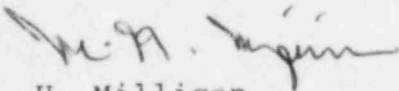
Subsequently, General Electric Co. issued a revised Service Advice Letter, 721-PSM-152.2A, dated March 24, 1982, stating that they received a report of an incident where a broken piece of Lexan coil spool prevented the desired operation of a relay.

As a result of this latter Service Advice Letter, it has been determined that this situation constitutes a reportable deficiency under 10CFR50.55(e).

#### Corrective Action

Although our analysis indicated that the situation did not constitute a reportable defect, based on G.E. Service Advice Letter 721-PSM-152.2, we elected to replace all Cat 1E HFA relay Lexan coil spools with Century Series magnetic coil assemblies or replace the relays with equivalent Century Series HFA relays, due to our lack of confidence in the continued qualification of HFA relays with Lexan coil spools. To date, all NSSS HFA relays have been replaced and we are receiving replacement BOP Cat 1E HFA relays from General Electric Co. The BOP Cat 1E HFA relay replacement will be completed by August 31, 1982.

Very truly yours,



M. H. Milligan  
Project Engineer  
Shoreham Nuclear Power Station

JSK/pg

cc: Mr. Richard DeYoung, Director  
NRC Office of Inspection & Enforcement  
Division of Reactor Operation Inspection

Mr. J. Higgins, Site NRC

All parties