

February 29, 1988

Docket No. 50-346
Serial No. DB-88-009

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Mr. Donald C. Shelton
Vice President - Nuclear
Toledo Edison Company
Edison Plaza - Stop 712
300 Madison Avenue
Toledo, Ohio 43652

Dear Mr. Shelton:

SUBJECT: NON-VITAL POWER SUPPLY IN VALVE INTERLOCK LOGIC

Attached is a letter which Westinghouse Electric Corporation sent to its customers regarding a valve interlock logic used in some of its plants. Our Instrumentation and Control System Branch has reviewed this problem, and believes that the subject problem could possibly exist at the Davis-Besse Nuclear Power Station also. Please review this information for applicability at Davis-Besse.

Sincerely,

151

Albert W. De Agazio, Project Manager
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosure:
As stated

cc: See next page

Office: LA/PDIII-3
Surname: *for* PKreutzer
Date: *2/29/88*

PM/PDIII-3 *[Signature]*
ADeAgazio/tg
2/29/88

PD/PDIII-3 *[Signature]*
KPerkins
2/29/88

8803030238 880229
PDR ADOCK 05000346
P PDR

FEB 24 1988



Westinghouse
Electric Corporation

Power Systems

1110162

Energy Systems
Service Division
Box 216
Pittsburgh, Pennsylvania 15230-0216

November 3, 1987
CPL-87-615

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Mr. R. E. Morgan, General Manager
Carolina Power and Light Company
H. B. Robinson, SEG Plant - please contact me.
P. O. Box 790
Martsville, South Carolina 29550

Dear Mr. Morgan:

Sincerely,

Carolina Power & Light Company
H. B. Robinson Unit 2
Operating Plant Feedback - Non-vital Power
Supply Used in Valve Interlock Logic

23140620

The purpose of this letter is to make you aware of a safety concern identified at an operating plant which has similar design features to your plant.

The potential problem involves the capability to establish post-LOCA recirculation flow. Please refer to the attached sketch. During certain accidents, a flow path from the containment sump through the Residual Heat Removal/Low Head Safety Injection (RHR/LHSI) pumps, to the High Head Safety Injection (HHSI) pumps is required. To establish this flow path, valves A or B must be opened. However, valves A and B are also interlocked with pressure transmitters A and B, respectively. The interlock logic includes a feature such that these valves cannot be opened when the RHRS pressure is above about 200 psig to 250 psig. The intent of this interlock logic is to insure that valves A and B remain closed during normal RHRS cooldown operation. This precludes the possibility of overpressurizing the lower pressure piping in the suction of the HHSI and Containment Spray Pumps.

For the operating plant, the pressure transmitters A and B were powered from non-vital power. The situation resulted in the potential where valves A and B could be blocked from opening if the non-vital power failed, even though the valves were powered from separate emergency power.

It is recommended that you review the current interlock logic and power arrangements for the subject valves and instrumentation to insure that failure of non-vital power still allows both valves to be opened. It is acceptable for the single failure of emergency power to preclude one valve from being opened.

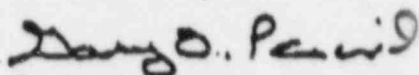
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If remote valve operation cannot be assured, several interim changes could be made to allow continued plant operation. These include bypassing the interlock logic or manual operation of the valves using the handwheel. (Note: The corresponding emergency procedure should reflect any changes.) Longer-term solutions include changing power supplies or modifying the interlock logic.

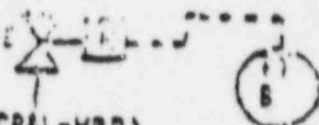
Should you have any questions, please contact me.

Sincerely,



G. O. Percival, Project Manager
Carolina Area

Attachment
HT/3520G



- cc: ✓ R. E. Morgan (CP&L-HBR)
- B. G. Rieck (CP&L-HBR)
- G. P. Beatty (CP&L-HBR)
- J. M. Curley (CP&L-HBR)
- V. E. Frazier (CP&L-HBR)
- T. Clements (CP&L)
- M. E. Zealouk (CP&L)

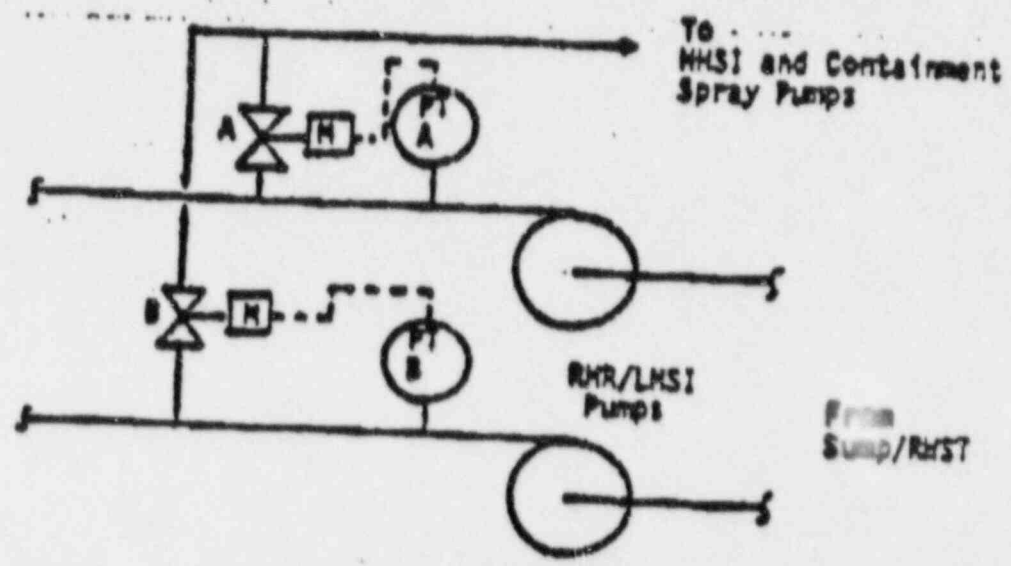
- B. M. Stone (CP&L-HBR)
- A. R. Wallace (CP&L-HBR)
- S. R. Zimmerman (CP&L)
- R. J. Muth (W-HBR)
- R. S. Pollock (W-Raleigh)
- E. J. Wagner (CP&L)

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FEB 24 1988

2314 0622



TYPICAL ARRANGEMENT

Mr. Donald C. Shelton
Toledo Edison Company

Davis-Besse Nuclear Power Station
Unit No. 1

cc:

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