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U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: Three Mile Island Nuclear Plant, Unit 1 (TMI-1)  
Operating License DPR-50  
Docket No. 50-289  
ATWS Design Implementation Simplification of Protective  
Action

In the GPU Nuclear (GPUN) letter (C311-89-2058) dated October 4, 1989 GPUN described the Diverse Scram System (DSS) design relative to completion of Protective Action at page 11 and depicted on Figure 1. (Figure 1 is enclosed for ease of reference)

GPUN has now simplified the DSS logic circuit as depicted on Figure 1A also enclosed with this letter. Lock-up/Seal-in of the DSS trip function is now achieved by the action of circuit breakers 1G-2A and 1L-2A, which lock-in/seal-in inherently, by design. Reset is done locally by the operator at the breakers.

This simplified design achieves a reduction in the number of procedural steps required by an operator to reset a protective actuation. In the original design of Figure 1 the three step procedure consisted of: (1) Reset the actuation; (2) reclose the breaker to energize the Control Rod Drive System (CRDS); and, (3) withdraw control rods using the CRDS. The revised design is more typical of GPUN procedures to reset a protective action. The two step procedure is: (1) reclose the breaker; and, (2) withdraw control rods using the CRDS. The additional step built in to the original design is unnecessary and results in added circuit complexity.

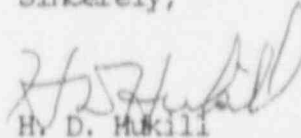
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This revised design implementation for Completion of Protective Action has been discussed with the Staff. The purpose of this letter is to document the subject design change.

Sincerely,



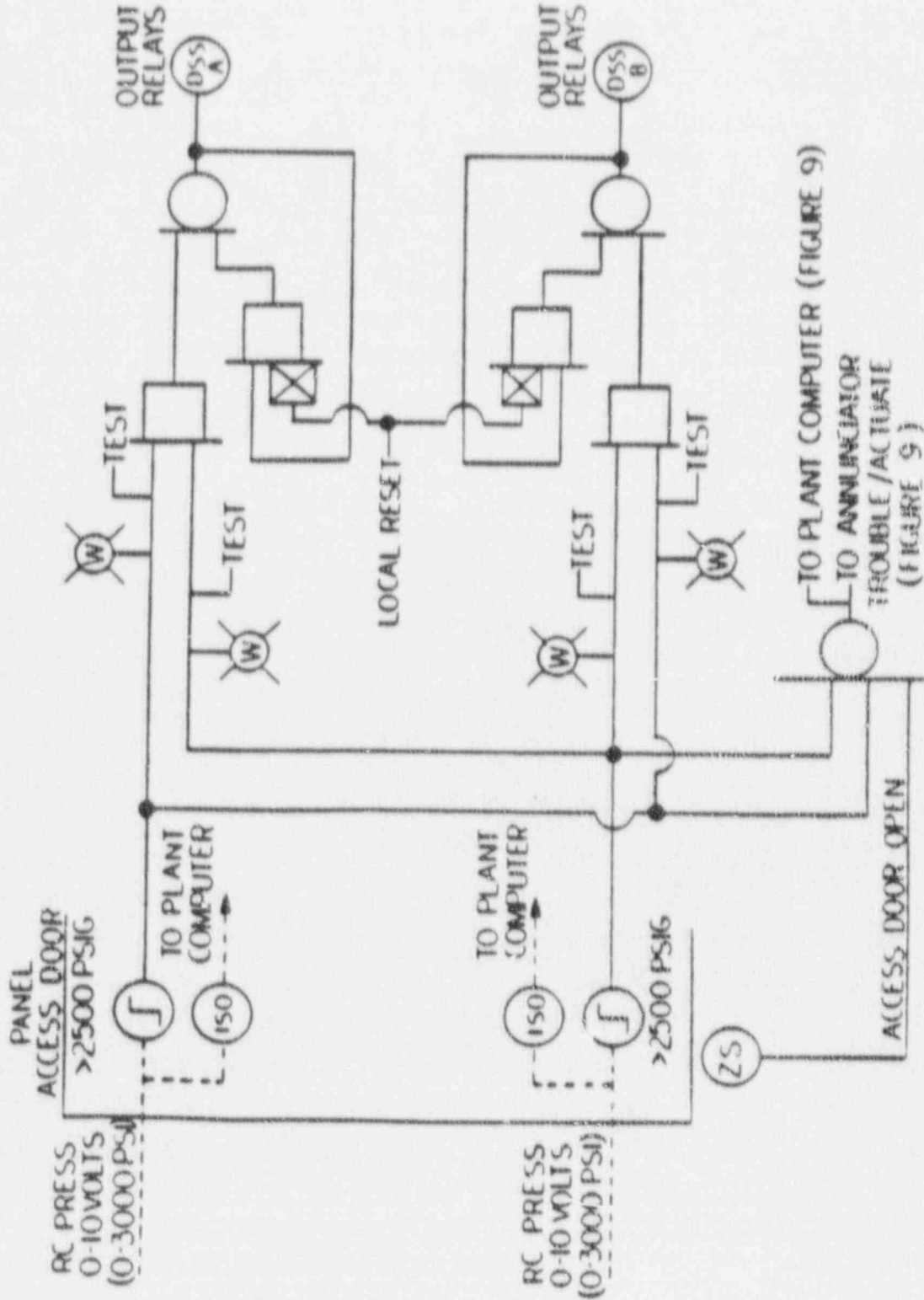
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HDH/GMG/plp

cc: Administrator, Region I  
Director, Project Directorate I-4 NRC  
TMI-1 NRC Project Manager  
Senior NRC Resident Inspector

# DSS LOGIC FIGURE 1

" ORIGINAL DESIGN "



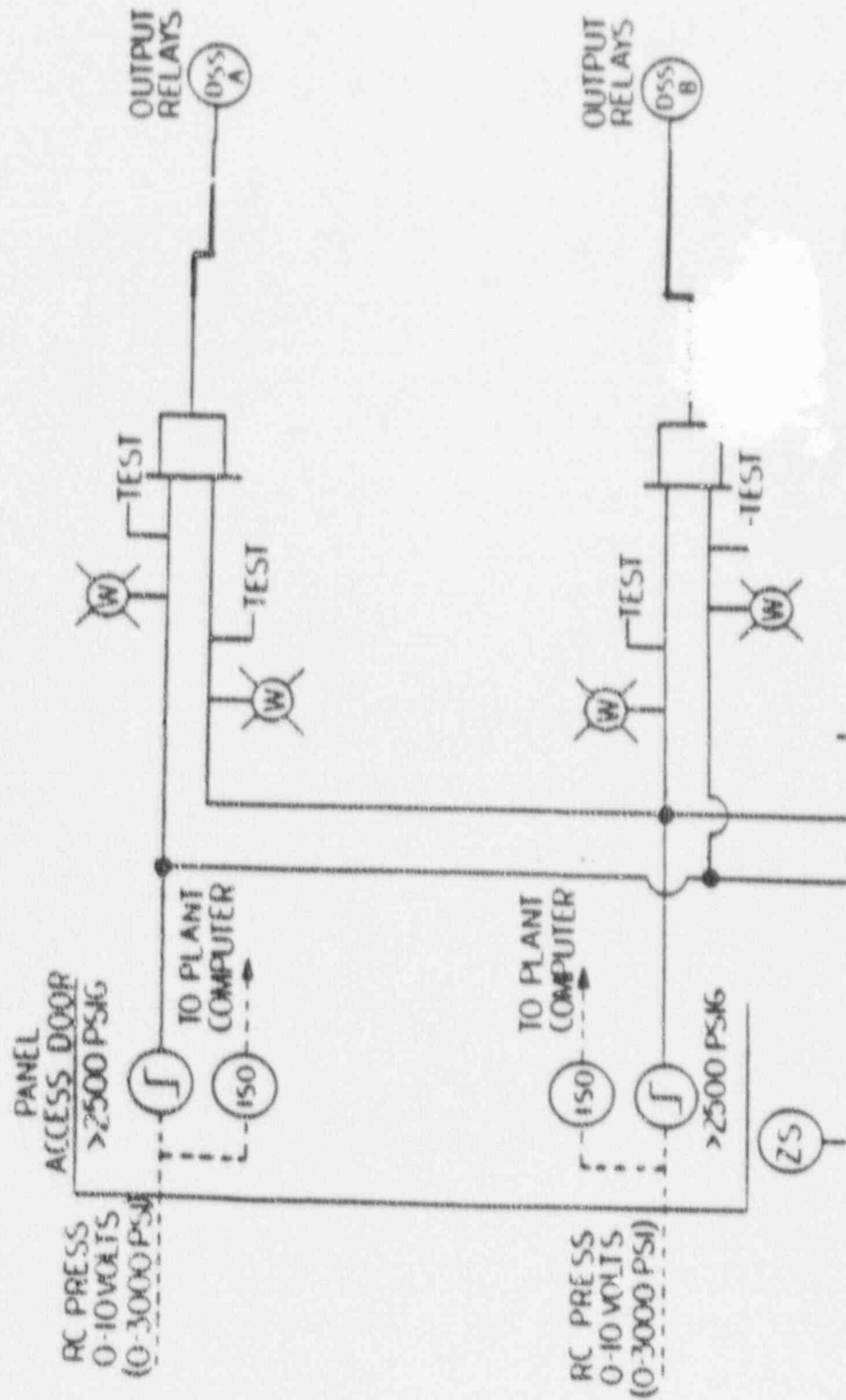
NOTE:

ALL MODULES POWERED BY  
120VAC BOP

LEGEND:

# DSS LOGIC FIGURE 1A

"REVISED DESIGN"



NOTE: OTHER MINOR CHANGES TO LIGHTS, TEST SWITCHES, AND ALARMS ARE NOT SHOWN.

NOTE:

ALL MODULES POWERED BY  
120VAC BOP

LEGEND: