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Writer's Direct Dial Number

March 19, 1980  
TLL 115

Director of Nuclear Reactor Regulation  
Attn: R. W. Reid, Chief  
Operating Reactors Branch No. 4  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit I (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Valve Lineup Procedural Changes

This letter is in response to your letter of January 22, 1980 concerning a request for information on the effects of valve lineup procedural changes. Your letter indicated a concern for a LOCA outside containment due to the overpressurization of the low pressure injection piping and the need to test the check valves during startup and operation with the motor operated valve open.

Background

TMI-I's low pressure injection piping from the reactor vessel to the motor operated valve (DH-V 4 A/B) is high pressure piping designed for 2500 psig and 300°F. The low pressure piping from DH-V 4 A/B to the decay heat pump suction isolation valves is designed to 470 psig at 300°F. The three pressure barriers are two check valves (CF-V 5 A/B and DH-V 22 A/B) in series with the closed DH-V 4 A/B.

Question

What is the adverse safety impact of starting/operating with the MOV in the open position?

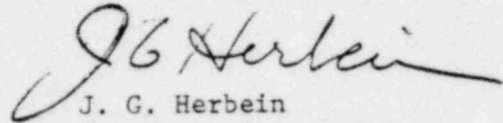
Response

If the DH-V 4 A/B were left open, this would eliminate one of the three redundant pressure barriers. FSAR Table 5-4 and Figure 5-35 take credit for one check valve and the closed MOV. Obviously, reducing the number of pressure barriers would reduce the number of failures necessary to allow overpressurization of the low pressure piping to occur. This increases the probability of overpressurizing the low pressure portions of the Decay Heat System. Overpressurizing the Decay Heat System could cause a loss of reactor coolant accident and/or a loss of Decay Heat

*Approved  
5/10*

System redundancy. This increased probability would exist for both startup and normal plant operation.

Sincerely,

A handwritten signature in cursive script, appearing to read "JG Herbein".

J. G. Herbein  
Vice President  
Nuclear Operations

JGH:DGM:hah

cc: J. T. Collins