

October 17, 1996

Mr. Charles D. Frizzle  
President  
Maine Yankee Atomic Power Company  
329 Bath Road  
Brunswick, Maine 04011

SUBJECT: TECHNICAL PROBLEMS REQUIRING RESOLUTION

Dear Mr. Frizzle:

The purpose of this letter to provide the preliminary results of the staff's review of your letters of August 23 and 29, 1996, in reference to the subject issue. These technical problems were initially identified by our Integrated Safety Assessment Team (ISAT), and further developed by your organization or the ISAT, and evaluated by your organization for resolution sufficient to support safe restart of the unit. Specifically, four problems needed resolution to assure safe operations: adequacy of logic system safety function testing; adequacy of net positive suction head (NPSH) for the containment spray system (CSS), specifically during recirculation actuation; operability of the temperature control valves for the Primary Component Cooling (PCC) and the Secondary Component Cooling (SCC) heat exchangers; and, operability of the thermostats (in need of calibration in addition to functional test) for the emergency diesel generator (EDG) room exhaust fans. As described below, these problems were sufficiently resolved to support safe restart of the unit; but longer term actions remained to be completed. Reactive inspections on these problems will be documented in NRC Inspection Report No. 50-309/96-09. Additional followup inspections are planned.

With respect to the issue of safety system logic testing, our inspection found the scope of your review and testing to be appropriate; the review was performed by knowledgeable engineers; the reviews were thorough and deficiencies were documented and appropriately resolved prior to plant restart.

With respect to the NPSH for CSS, analysis at a power level of 2700 Mwt identified a worst case condition where the NPSH margin, excluding the hot fluid temperature correction, would be -0.7 ft. The period of reduced pump performance with this negative NPSH margin potentially lasts for about five minutes during post accident long term recirculation realignment from the refueling water storage tank to the containment sump. Additional analysis for operation at a reduced power level of 2440 Mwt was performed and information from the pump vendor indicated the CS pumps can operate at reduced NPSH (about 4 ft below the required value or -4.0 NPSH margin) for several hours without damage or loss of capability. With the additional analysis and vendor information, the commitment was made to perform a thorough operability evaluation for 2 of the 3 pumps

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before restart. The determination for the third "swing" pump was to be completed shortly after restart during which time the third swing pump would not be used for CS function. Based on extensive discussion and independent NRC analysis, the NRC staff concluded that the CS pumps are likely to perform their safety function. However, the NRC staff has identified several concerns with the analyses in which we concluded that the CS pumps are in a degraded, non-conforming condition. The operability determination performed by the Maine Yankee staff supported operation at 2440 Mwt. Staff concerns related to operations above 2440 Mwt are required to be resolved as a part of the staff action to review the integrated containment pressure response analysis being performed to address the staff's Order and Demand for Information, dated January 3, 1996.

With respect to the latter two testing problems (PCC and SCC Control and EDG room thermostats), adequate testing was completed for restart and the results were reviewed by our resident inspectors. We have no immediate concerns on these specific tests. In light of these two testing problems and that noted for the logic system function testing, our preliminary review of ISAT findings indicated at least a program weakness in the area of testing for which we plan further inspection.

Thank you for informing us of your actions documented in your letters. We consider these actions acceptable for operation at 2440 Mwt pending our further review of your licensed program.

Sincerely,

**Original Signed By:**

Richard W. Cooper, II, Director  
Division of Reactor Projects

Docket No. 50-309

cc w/encl:

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Mr. Charles D. Frizzle

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per fax  
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Roland W. W. 4/17/96

09/9/96

\* Paragraph 3: NPSH is NRR's call.

John Z will attest to its

accuracy. & concur that

para 3 is consistent w/ oral internal (RI - NRR-ISAT) discussions on the issue