

**From:** Yi-Hsiung Hsii  
**To:** Robert Martin  
**Date:** 6/26/01 10:45AM  
**Subject:** Revised RAI on McGuire TS Change

Bob,

Attached is a revised RAI list from the one I sent you yesterday. I rewrote question 4A. Please discard the old one. Thanks.

Gene

**CC:** Frank Akstulewicz; Lambros Lois

RAI RELATED TO MCGUIRE LTOP TS CHANGES

1. LCO 3.4.12 specifies the PORV lift setting of 385 psig. However, in Tables 3 and 8 of Attachment 3 to the 2/14/01 letter, "Description of the Proposed Changes and Technical Justification," the nominal PORV Setpoint is shown to be 380 psig. The peak pressures for various transients shown in these tables and the "LTOP Setpoint + Max Overshoot & All Uncertainties" lines in Figures 1 and 2 appear to be based on the PORV setpoint of 380 psig. How do the conclusions derived from them support the PORV setpoint of 385 psig?
2. WCAP-15192 and WCAP-15201, Heatup and Cooldown Limit Curves for Normal Operation, for McGuire Units 1 and 2, respectively, have been replaced with revision 1 of the respective topical reports. The pressure/temperature (P/T) limits have been revised slightly. Since the evaluation of the PORV setpoint provided in Attachment 3 of the 2/14/01 letter was based on the P/T limits from the original topical reports. Would the revised P/T limits affect the conclusion drawn from the original limits? Why?
3. There appears to be a large difference in the P/T limits for McGuire Units 1 and 2. Discuss briefly the reasons for the large difference.
4. Sections 3.4.2.4 and 3.4.3.4 of Attachment 3 (2/14/01 letter) state that the peak vessel pressure with the RHR at maximum relieving capacity is approximately 560 psig for both McGuire Units 1 and 2, which is described in detail in LTOP calculation.
  - A. Provide a description of this calculation, including the method of calculation and the assumptions on the mass input, operation of the PORV and the RHR suction relief valve.
  - B. What is the basis of using the maximum relieving capacity of the RHR suction relief valve for the vessel peak pressure calculation?

5. In the determination of the restrictions on the cold leg temperature and the cooldown rate for the use of RHR suction relief valve, Sections 3.4.2.4 and 3.4.3.4 appear to assume the instrumentation uncertainty for the RCS temperature to be 12 to 14°F. What is the basis for this number?
6. For LCO 3.4.12, when Condition A occurs with any combination of two charging or safety injection pumps capable of injecting into the RCS, several required actions options are specified. You proposed to add a fifth required action option:

“A.5.1 Depressurize RCS and establish RCS vent of  $\geq 2.75$  square inches.

AND

A.5.2 Verify two PORVs are Operable.”

Section 3.3 of Attachment 3 (2/12/01 letter) contends that since either A.5.1 or A.5.2 constitutes an operable LTOP that protects against one charging pump or safety injection pump capable of injecting into the RCS, the combination of both A.5.1 and A.5.2 would be capable of protecting against any combination of two charging and safety injection pumps capable of injecting into the RCS.

- A. What is the basis of the apparent assumption of a linear relationship between the mass input and relieving capacity in the determination of the peak vessel pressure during transients.
- B. Has an analysis been performed to demonstrate a combination of A.5.1 and A.5.2 with any combination of two charging and safety injection pumps injecting into the RCS result in the P/T limits not being violated? What is the result?

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