



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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NOTE TO: Frank Schroeder

FROM: Robert Baer

SUBJECT: FINAL CLARIFICATION OF TMI ACTION PLAN

The review group to which I was assigned was to review the clarifications to the TMI Action Plan was instructed to carefully review all "clarifications" to (1) limit the number of new requirements imposed and (2) assure technical consistency. In two situations discussed below (Tasks II.K.2.13 and II.K.3.25) these instructions seem to be mutually exclusive. In both cases a requirement that appears to be applicable to plants designed by a number of different NSS suppliers was imposed on the licensees of plants designed by only one NSS supplier.

Task II.K.2.13 requires that licensees of B&W reactors perform a detailed analysis of the effect of high pressure injection on reactor vessel integrity for the situation of a small LOCA with no main or auxiliary feedwater available. In the postulated scenario, decay heat is removed by "bleed and feed" and leads to high pressure in the reactor coolant system, but a relatively cold temperature at the reactor vessel wall. There is no apparent reason why this concern is limited to B&W reactors. In fact, the vent valves in the B&W reactors may permit some mixing of the high temperature core exit coolant with the low temperature ECC injection water. Such mixing, if it occurs, would ameliorate the problem.

My recommendation is that Task II.K.2.13 be imposed on all PWR licensees unless the licensee proposes a method other than "feed and bleed" to remove decay heat for the postulated scenario.

Task II.K.3.25 requires that reactor coolant pump seals in BWR's be able to withstand a loss of cooling water for at least two hours. The basic goal of this requirement is to reduce the number of pump seal failures. There is no controversy regarding this goal; however, there are two significant problems with this task as currently written.

1. The task only deals with seal cooling. It is not at all clear that this is the dominant contributor, or even a major contributor, to seal failure rate.
2. This task only applies to BWR's; there appears to be no rationale for not imposing the same requirement on PWR's.

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My recommendation is that we drop this task for the present. Then either OEEB or the AEOD Office should perform a detailed review of all previous reactor coolant pump seal failures to determine the cause of such failures. If this review shows that loss of cooling water is a major contributor to seal failure, then Task II.K.3.25 should be applicable to all licensees, not just BWR licensees. If the review shows that other causes of seal failures are more prevalent, then the task should be reoriented accordingly.

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