



UNITED STATES
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NOTE TO: S. H. Hanauer

FROM: A. Thadani

As a result of our September 7th meeting with the BWR 3 owners, I am concerned that there is some confusion as to what constitutes Bin 1, Bin 2 and Bin 3 material in the 2/15/79 letter from R. Mattson to the LWR vendors.

Enclosure 1 describes the three Bins while enclosure 2 describes the additional questions (resulting from TMI-2 considerations) which need resolution.

It is my opinion that the information necessary to develop the ATWS rule and regulatory guide consists of adequate responses to the Bin #1 items and the TMI-2 related questions. I want to bring your attention to item F in enclosure 2 which is also applicable to BWRs.

On the basis of my discussions with the vendors, I believe we will be provided all the necessary information by 12/31/79 which is consistent with our plans to prepare an ATWS rule and regulatory guide in March '80. In fact, these submittals would likely cover most of questions in Bin #2.

Please note, however, that the necessary information must cover the operating plants otherwise it is highly likely that extensive reevaluation effort would be needed (because of the design of these operating plants and potential inapplicability of the generic fix) and the ATWS resolution further delayed for operating plants. I am therefore going to ask the BWR 3 owners to provide the information in Bin #1 and justify the applicability of the analyses and equipment assumptions to the BWR 3 plants.

A. Thadani

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cc: R. Mattson
T. Speis
ATWS Task Force

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Pre TMI-2 Scope

Bin #1

Acceptable Evaluation Model
Limiting Transient Analyses
Justification of Initial Conditions
Mitigating Systems - How they satisfy criteria
Qualitative Sensitivity Study
Stress - Cherny note to A. Thadani 3/6/79
Radiological Assessment - Alt. #3
Worst Case Scenarios Assessment - Alt. #4
Justification of MTC
Discussion of Preliminary description of diversity
Containment Considerations

Bin #2

Essentially all Remaining Questions in the 2/15/79 letter from
R. Mattson

Bin #3

Absolute minimum - preferably none

(Handwritten: Item 5)
TMI-2 Impact

A. Long-Term Shutdown With Stuck Open Pressurizer Safety/Relief Valve

- i. The major staff concerns relate to the potential effects of the voids generated in the primary system in preventing natural circulation.
- ii. Post-TMI deliberations have shown that the tripping of RCPs immediately following a small LOCA may be the most appropriate action. Provide ATWS analyses consistent with this factor.
- iii. List the instruments and equipment relied on to mitigate the consequences of ATWS events and provide assurance that the instrumentation and equipment are qualified for ATWS environment.

B. Operator Actions

Provide justification for credit for operator action 10 minutes after the initiation of the postulated ATWS event. Also address the information displayed and the simplicity of operator actions.

C. Blocked PORV

The staff has learned that some plants operate with the PORV blocked because of leakage through the PORV. Since the PORV is relied on (for Alt. #3 plants) to provide capability to limit the overpressure during ATWS events, bases for continued operation with blocked PORV must be provided.

D. Pressurizer Safety/Relief Valve Qualification

Recent studies by the staff indicate a need for assurance that the safety/relief valves would behave as predicted in the ATWS analyses when exposed

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to two-phase and subcooled water conditions. Since the valves are not qualified for this environment, the staff requires that a program to verify correct valve behavior be initiated and results obtained early.

- E. Address ability of the computer codes to correctly evaluate the consequences of voids in the primary system, the effect of changes in the water relief model, and the role of the RCPs. Long-term shutdown considerations should also address boron precipitation.
- F. Provide bases for the applicability of analyses to specific plant designs so that the staff can continue with the "Early Verification" approach to resolve ATWS. In particular, address conditions and equipment.