



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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~~James~~
James
Regulatory
Adm.

I would like to
have your comments
by 1/6

Robbie
chris
Firestone

MEMORANDUM FOR: Ashok C. Thadani, NRR
FROM: Louis M. Shotkin, RES
SUBJECT: COMMENTS ON ATWS REPORT - DRAFT NO. 2

The use of deterministic calculations for investigating the consequences of a hypothetical ATWS is a realistic position. However, since most of the models are "best-estimate", it is striking that the draft report does not address the problem of computer code verification.

Chark
Graves

The 99 percent criterion on the MTC is truly conservative, but data is lacking on high pressure liquid flow through the pressurizer steam relief valves, and on heat transfer in the steam generator under postulated ATWS conditions.

The statement on Page 41 of Section 1, that, "the treatment of heat transfer is to be confirmed by more detailed sensitivity studies" could be strengthened by replacing with, "... confirmed by experimental test data".

L. M. Shotkin
F. O. O'Brien

In Section 4.2, the statement, "Although there are no directly applicable data representative of ATWS conditions, the staff's multifaceted approach (- - -) provides some confidence in the applicability and accuracy of the codes at least to one another", is not convincing for a best-estimate analysis. The codes must be verified against reality, not one another.

Finally, in Section 4.1, the statement, "the ATWS transient is a well behaved transient with little or no two phase flow phenomena and the mathematics which describe the event are fairly straightforward" may be wishful thinking. There is, of course, two phase flow in the BWR vessel during ATWS, as well as in the secondary side of the PWR steam generator. The calculation of moderator reactivity feedback during ATWS may well require some ingenuity.

Low

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