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

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MEMORANDUM FOR: T. Novak, Chief, Reactor Systems Branch, DSS

FROM: R. L. Tedesco, Assistant Director for Plant Systems, DSS

SUBJECT: ATWS COMMENTS

In response to management's request for comments by 11/3/77 on the draft ATWS report, we have prepared the following:

1. The report is so wordy in many areas; e.g. Section A, that it is difficult to maintain a clear understanding of the issues being discussed. In this respect, there should be a summary at the beginning of each section which briefly delineates the substance of the issue to be discussed in that section. In many places, much of the wording and discussion could be left out. I believe that the WASH 1400 approach using an Executive Summary with Appendices would be preferable. } lgk AT Minners

2. The report is put together in a way that it is difficult to clearly see the very important point that a plant will be considered to have sufficient capability to safely mitigate the consequences of ATWS events when its combined mitigating systems coupled with any assumed SAF in one of these systems have an overall unreliability of $\simeq$ $<10^{-2}$/RY and, an analyses show these systems meeting Table 1.1 - ATW acceptance criteria. It seems to me that if this probabilistic criterion were presented and developed early in the report, much of the discussion presently in the report could either be deleted or compiled in a separate Appendix. This clearly is a departure from current licensing approach and I would hope that it has been fully evaluated. I would not like to be in a situation that a SAF would lead to a Class 9 Events. } lgk } AT

3. It is confusing to read on page 1-4 that ATWS events leading to core melt or resulting in doses > Part 100 should have a frequency no greater than 10^{-6}/RY, whereas Table 1.1 specifies ATWS criteria for 10^{-6} type events somewhat different e.g. doses < Part 100. } lgk

4. With respect to the 10^{-6}/RY criterion and its relationship to the assumption of a single active failure, the report should make it clear why the same philosophy could not be universally used for LOCA analyses. } AT Minners

5. Table 1.1 on pg. 1.9 shows an inconsistancy between design limits of the primary system and the containment. I have difficulty with this aspect - seems to me we should be able to design both structures to some criteria; e.g. why not 1.5 or 2x design pressure for the containment?

6. The reliance on non-safety equipment (pg. 1-10) is unfounded and cannot be treated merely by imposing some out-of-the-air probability numbers.

7. Pages 4-6 provides no bases for 10 minutes operator time. N660 does not take this approach. One really needs to generally know all the actions that have to be taken before selecting some activity time period.

8. CSB still has a problem on the pool temperatures for BWR (I'm sure they will comment on this especially in light of new topical report).

9. I have alot of editorial comments that you can have when you want them.

R. L. Tedesco, Assistant Director
for Plant Systems
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cc: R. Mattson
D. Ross