



Commonwealth Edison

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August 28, 1979

Dr. Stephen H. Hanauer, Director
Unresolved Safety Issues
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Anticipated Transients Without Scram
General Electric BWR/3 Plants and
Vermont Yankee - Generic Analysis
Supplement

- Reference: (a) Letter, R. J. Mattson to G. G. Sherwood
dated February 15, 1979.
- (b) NEDE-24669 "Assessment of BWR/3 Mark I
Mitigation of ATWS in Response to
NUREG-0460"; June, 1979

Dear Dr. Hanauer:

As you have been previously informed, the owners of the subject plants have engaged General Electric to perform additional analysis with regard to ATWS. Reference (a) requested information to provide the NRC with a technical basis for its "early verification" approach (NUREG 0460, Volume 3) to be used in the forthcoming rulemaking on ATWS. As previously stated in numerous meetings with the Staff and the ACRS, it is the BWR industry's firm belief that Alternate 2 is sufficient. Reference 2 reports the results of the study conducted. Additionally, the Staff is still requiring documentation on Alternate 3. In response, the BWR-3 owner's intend to perform the following work on the schedule indicated.

Two tasks have been identified. Task 1 is the initial submittal consisting of a representative BWR-3 plant's response to the three limiting ATWS events, MSIV closure, turbine trip with bypass, and inadvertent opening of a relief valve - IORV. Task 1 is targeted for submittal on December 30, 1979. Task 2 consists of an evaluation of the remainder of the transients requiring ATWS consideration and additional typical plant sensitivity studies of the three limiting ATWS events. This effort is targeted for submittal on March 15, 1980 (subsequent to the BWR 4/5/6 Bin 2 submittal).

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The analysis schedule outlined above was formulated to accommodate the schedule for all analytical work still outstanding relative to BWR "early verification". For that reason expediting the additional BWR/3 analysis could jeopardize previous schedule commitments made for BWR/4,5, and 6 analysis.

It is our intention to discuss these matters with you further on September 7, 1979. In the event you have any questions in this regard, please contact me in the absence of Mr. D. Larsen of Boston Edison.

Very truly yours,

H. J. Naughton

for

Louis O. Bel George
Nuclear Licensing Administrator
(312) 294-3962

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RECIP. NAME RECIPIENT AFFILIATION
HANAUER, S. H. Division of Systems Safety

SUBJECT: Discusses company position on ATWS issue in light of TMI event. Many concerns are being addressed by several programs. Presents seven group of questions needing clarification by NRC & Schedule for responding to concerns.

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Westinghouse Electric Corporation

Power Systems

PWR Systems Division

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August 24, 1979

NS-TMA-2125

Stephen H. Hanauer
Nuclear Regulatory Commission
Maryland National Bank Building
7735 Old Georgetown Road
Bethesda, Maryland 20014

SUBJECT: ATWS

Dear Dr. Hanauer:

Westinghouse has held and still believes that Anticipated Transients Without Scram (ATWS) is not a concern that will endanger the health and safety of the public, however, in view of the inordinate amount of Staff attention which has been given this issue it has become a licensing issue that needs to be resolved. We have submitted several topical reports in the past that show the response of a Westinghouse NSSS to a postulated ATWS event, and in all cases have shown that the results are acceptable. The latest report submitted via NS-TMA-2096, dated June 8, 1979, demonstrated that the limiting ATWS transients result in peak system pressures below emergency stress limits and that the resulting radiological doses from postulated ATWS events are a small fraction of the 10CFR100 limit. The report also describes possible plant modifications that will further ensure that these results are valid and are offered to resolve the licensing concerns.

The two recent meetings with you and members of your staff, on July 25 and August 14, were directed towards redefining the ATWS issue in light of the lessons learned from the Three Mile Island event. This redirection of the ATWS issue has expanded the scope of ATWS. Many of the new concerns for ATWS are being addressed by other programs, in response to the Lessons Learned Report, NUREG-0578, and the TMI-related bulletins 79-06A and 79-06C.

Our understanding of the staff's schedule is that a proposed ATWS rule will be drafted in early 1980. To draft this rule the staff has informed us that additional information will be required from Westinghouse and our customers. An informal list of the questions and concerns were received from Mr. A. Thadani on August 17. Many of the concerns and questions are qualitative in nature and will require future clarification. The questions and concerns can be defined in the seven following groups.

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- (1) Computer code concerns related to the code's ability to correctly predict severe ATWS transients.
- (2) Additional transient analyses that include the original request in Dr. Mattson's letter of February 15 and many TMI-related analyses.
- (3) Additional stress calculations related to the Westinghouse June 8th submittal.
- (4) Additional dose calculations related to the Westinghouse June 8th submittal.
- (5) Qualification of instruments and control systems during and after postulated ATWS events.
- (6) Long term shutdown following an ATWS event.
- (7) Plant specific input regarding the proposed hardware modifications and how an individual plant is covered by the generic analyses.

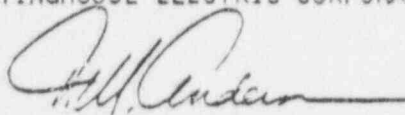
Responses to these questions and concerns will represent a significant amount of effort on the part of Westinghouse and our customers. Because of the manpower required to respond to the Lessons Learned Report, NUREG-0578, and the various TMI-related bulletins, such as 79-06A and 79-06C, it will not be possible to respond to all of these concerns before the end of this year. Westinghouse will respond to many of the staff's concerns and will try to meet the following schedule:

- By November 15, 1979 respond to major concerns in groups 1, 2, 4 and 5;
- By December 30, 1979 respond to major concerns in groups 3, 6 and 7; and
- By March 30, 1980 respond to the remaining concerns.

If you have any questions please contact Mr. R. W. Steitler of my staff (412/373-4705).

Very truly yours,

WESTINGHOUSE ELECTRIC CORPORATION



T. M. Anderson, Manager
Nuclear Safety Department