



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

MAY 17 1979

Mr. Tom M. Anderson, Manager
Nuclear Safety Department
Westinghouse Electric Corporation
P. O. Box 355
Pittsburgh, Pennsylvania 15230

Dear Mr. Anderson:

SUBJECT: ACRS RECOMMENDATIONS RELATING TO TMI-2 ACCIDENT

As you know, the Advisory Committee on Reactor Safeguards (ACRS) has written three separate letters to the Commission relating to the TMI-2 accident. These letters were issued on April 7, April 18, and April 20, 1979. Each of these letters contains specific recommendations which must be addressed. The ACRS has discussed these recommendations with the staff and industry at recent ACRS subcommittee and full committee meetings. We anticipate that this dialogue will continue in the forthcoming ACRS subcommittee meeting on TMI-2 (May 31-June 1).

For this reason, we are requesting that all light water reactor vendors provide the staff with a concise discussion and position on each of the ACRS recommendations relating to TMI-2. For your convenience, we have provided in the enclosure a list which contains each ACRS recommendation of which we are aware. We request that you provide your response to each of these ACRS recommendations to be received by the staff no later than May 23, 1979.

If you require any clarification of the matters discussed herein, please contact C. J. Heltemes, Jr. Mr. Heltemes' phone number is (301) 492-7745.

Sincerely,

A handwritten signature in dark ink, appearing to read "D. F. Ross".

D. F. Ross, Deputy Director
Division of Project Management
Office of Nuclear Reactor Regulation

Enclosure:
As stated

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ENCLOSURE

ACRS RECOMMENDATIONS

A. Letter, M. Carbon to Chairman Hendrie, dated April 7, 1979

Recommendation 1 - Perform further analyses of small break transients and accidents.

Recommendation 2 - Provide operator additional information and means to follow the course of an accident; as a minimum, consider expeditiously:

(a) unambiguous RV level indication

(b) remotely controlled vent for RCS high points

Recommendation 3 - Item 4b of Bulletin 79-05A considered unduly prescriptive in view of uncertainties in predicting course of anomalous small break transients/accidents.

B. Letter, R. Frazier to Commissioners, dated April 18, 1979

Recommendation 1 - Natural Circulation-related Items

- a. Detailed analyses of natural circulation mode, supported as required by experiment, by licensees and NSSS vendors.
- b. Develop procedures for initiating natural circulation.
- c. Provide operator means for assurance that natural circulation has been established, e.g., by installation of instructions to indicate flow at low velocities.
- d. Expeditiously survey operating PWR's to determine whether suitable arrangements of PZR heaters and reliable on-site power distribution can be provided to assure this vital aspect of natural circulation capability.
- e. Operator should be adequately informed concerning RCS conditions which affect natural circulation capability, e.g.,
 - (1) indication that RCS is approaching saturation condition by suitable display to operator of T_c & T_h and PZR pressure in conjunction with steam tables
 - (2) use of flow exit temperature indicator by fuel assembly thermocouples, where available.

ACRS Recommendations

Recommendation 2 - Thermocouples used to measure fuel assembly exit temperatures to determine core performance should be used, where currently available, to guide operator concerning core status (full range capability).

Recommendation 3 - Operating reactors should be given priority regarding definition and implementation of instrumentation to diagnose and follow the course of a serious accident, including

- (a) improved sampling procedures under accident conditions
- (b) improved techniques to provide guidance to offsite authorities.

Recommendation 4 - Reiterates previous recommendations that high priority be given to "research to improve reactor safety"

- (a) research on behavior of LWR's during anomalous transients
- (b) NRC to develop capability to simulate wide range of postulated transients and accident conditions.

Recommendation 5 - Consideration should be given to additional monitoring of ESF equipment status, and to supporting services, to help assure availability at all times.

C. Letter, M. Carbon to Acting Chairman Gilinsky dated April 20, 1979

Recommendation 1 - Initiate immediately a survey of operating procedures for achieving natural circulation, including:

- (a) event involving loss of offsite power
- (b) consideration of role of PZR heaters.