



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

August 13, 1979

Honorable Joseph M. Hendrie
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: SHORT-TERM RECOMMENDATIONS OF TMI-2 LESSONS LEARNED TASK FORCE

Dear Dr. Hendrie:

During its 232nd meeting, August 9-11, 1979, the Advisory Committee on Reactor Safeguards completed a review of the short-term recommendations of the TMI-2 Lessons Learned Task Force as reported in NUREG-0578. These recommendations had been reviewed, in part, by an ACRS Subcommittee at a meeting in Washington, D.C., on July 27, 1979. During its review the Committee had the benefit of discussions with members of the Task Force. Comments from representatives of the nuclear industry were also considered.

In its review, the Committee has noted that the recommendations in NUREG-0578 are those deemed by the Task Force to be required in the short term to provide substantial additional protection for the public health and safety.

The Committee has considered both the recommendations themselves and the schedules proposed for their implementation. Regarding the latter, the Committee believes that the orderly and effective implementation and the appropriate level of review and approval by the NRC Staff will require a somewhat more flexible, and in some cases more extended, schedule than is implied by NUREG-0578.

With regard to the requirements themselves, the Committee agrees with the intent and substance of all except those discussed below.

2.1.5 Post-Accident Hydrogen Control Systems

a. The Committee agrees with the recommendations relating to dedicated penetrations for external recombiners or purge systems for operating plants that have such systems.

b. and c. The majority of the Task Force has recommended rule-making to require inerting of BWR Mark I and II reactors. A minority of the Task Force has recommended rule-making to require that all operating light water reactors provide the capability to use a hydrogen recombiner.

The Committee believes that questions relating to hydrogen generation during and following an accident, the rate and amount of generation, the need to control it, and the means of doing so, need to be reexamined. The Task Force has advised the Committee that it is considering this question further in connection with its longer-term recommendations which are scheduled to be completed by September, 1979. The ACRS believes that decisions concerning possible additional measures to deal with hydrogen should be deferred pending early evaluation of the forthcoming longer-term Task Force recommendations.

2.1.8 Instrumentation to Follow the Course of an Accident

With regard to instrumentation to follow the course of an accident, the ACRS believes that containment pressure, containment water level, and on-line monitoring of hydrogen concentration in the containment should also be considered for implementation for all operating reactors on the same schedule as that recommended by the Lessons Learned Task Force.

2.2.1.b Shift Technical Advisor

The Committee agrees completely with the two closely related objectives of this recommendation. One relates to the presence in the control room during off-normal events of an individual having technical and analytical capability and dedicated to concern for safety of the plant. The other relates to the need for an on-site, and perhaps dedicated, engineering staff to review and evaluate safety-related aspects of plant design and operation. The achievement of these objectives will contribute significantly to the safe operation of a plant.

The Committee believes that there may be difficulty in finding a sufficient number of people with the required qualifications and interest in shift work to fill the Technical Advisor positions. The Committee therefore believes the solution proposed by the Staff should not be mandatory but that alternate solutions also should be considered.

2.2.3 Revised Limiting Conditions for Operation

The Committee agrees with the findings of the Task Force that there are too many human or operational errors resulting in the defeat of an entire safety system, that the number of such occurrences should be and can be reduced, and that the ultimate responsibility for doing this must rest with the licensee.

The Committee, however, is not convinced that the Task Force proposal is the best or only way to increase the licensee's awareness of the

need to improve operational reliability, and suggests that measures short of shutdown, such as a rule that requires actions similar to those of a show-cause order, may be equally effective.

Sincerely,



Max W. Carbon
Chairman

References:

1. NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations," Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, July 1979.
2. Letter, D. Knuth, President, KMC, Inc., to Harold Denton, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, August 8, 1979, Subject: TMI-2 Lessons Learned Task Force Report (NUREG-0578).
3. Letter, Stanley Ragone, President, Virginia Electric and Power Company, to Joseph M. Hendrie, Chairman, U.S. Nuclear Regulatory Commission, August 8, 1979, Subject: Lessons Learned Task Force on TMI-2, NUREG-0578.
4. Letter, Floyd W. Lewis, Chairman, Ad Hoc Nuclear Oversight Committee, to Harold R. Denton, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, August 1, 1979, Subject: Lessons Learned from TMI-2.
5. Letter, American Nuclear Society, ANS-3 Committee, to Joseph M. Hendrie, Chairman, U.S. Nuclear Regulatory Commission, August 2, 1979, Subject: Lessons Learned Task Force Status Report NUREG-0578.
6. Letter, Robert Szalay, Atomic Industrial Forum, Inc. (AIF), to Harold Denton, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, August 2, 1979, Subject: "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations," (NUREG-0578).
7. Report by the AIF Policy Committee on Follow-up to the Three Mile Island Accident, July 5, 1979.
8. Memorandum, C. G. Long, Lessons Learned Task Force Member, to R. J. Mattson, Director, TMI-2 Lessons Learned Task Force, July 30, 1979, Subject: Review of LERs for Loss of Safety Function Due to Personnel Error and Defective Procedures, (50-320).

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