ACRSR-1878

PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

March 13, 2000

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

Dear Dr. Travers:

SUBJECT: PROPOSED RESOLUTION OF GENERIC ISSUE B-17, "CRITERIA FOR SAFETY-RELATED OPERATOR ACTIONS," AND GENERIC ISSUE 27, "MANUAL VS. AUTOMATED ACTIONS"

During the 470th meeting of the Advisory Committee on Reactor Safeguards, March 1-4, 2000, we reviewed the proposed resolution of Generic Issue (GI) B-17, "Criteria for Safety-Related Operator Actions," and GI 27, "Manual vs. Automated Actions." During this review, we had the benefit of discussions with representatives of the NRC staff and of the documents referenced. The Committee had previously reviewed a proposed resolution approach to GI B-17 in 1995.

Conclusions

- The Committee agrees with the staff's resolution approach for these Generic Issues.
- The Committee would like to review the staff's evaluation of the ANSI/ANS Standard ANSI/ANS-58.8-1994 before it is endorsed.

Discussion

GI B-17 was formulated in 1978, before the TMI accident, to address a concern about whether certain time-critical-safety-related operator actions should be automated. A time criterion was to be established as a way to resolve this GI. In 1981, GI-27 was formulated to address questions as to whether certain safety actions should be automated or if manual operator actions were acceptable. Because they address nearly identical issues, these GI's were combined.

The staff position is that the regulatory actions that have been implemented since the 1979 TMI accident provide adequate grounds for closing GIs B-17 and 27. These regulatory actions have included: enhanced operator training and licensing requirements, including use of plant-specific simulators; improved training based on the Systems Approach to Training; establishment of minimum plant staffing levels; use of symptom-based emergency operating procedures; and

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completion of plant IPEs. The argument is also made that any new or revised regulatory activities to address this issue (i.e., automation of human actions) would not be cost effective or substantially increase public health and safety, given the existing regulations. We support the staff's positions in this regard.

In 1995, the staff proposed to close out GI B-17 by the endorsement of an American National Standard ANSI/ANS-58.8-1994, "Time Response Design Criteria for Safety-Related Operator Actions." The ACRS reviewed this matter during its 426th meeting, November 2-4, 1995, and advised against the use of this Standard to close out B-17 because the technical basis for the Standard was not available for review. The staff subsequently agreed to consider alternatives to the time-criterion approach advocated in this Standard for close out of this issue.

It is our understanding that the NRC staff may endorse ANSI/ANS-58.8-1994 for licensees to adopt in seeking relief from the use of automated equipment in transient situations by reliance on manual operator actions. Our concern regarding the need for an adequate review of the ANSI Standard has not been resolved. We would like to review the staff's evaluation of the Standard before it is endorsed.

Sincerely,

Dana A. Powers

D. A. Powers
Chairman

References:

1. Letter dated February 17, 2000, from Charles E. Rossi, Office of Nuclear Regulatory Research, NRC, to John T. Larkins, ACRS, Subject: Proposed Resolution of Generic Issues B-17, "Criteria for Safety-Related Operator Actions," and GI-27, "Manual Vs. Automated Actions."
2. ACRS Letter dated November 14, 1995, from T. S. Kress, Chairman, ACRS, to James M. Taylor, Executive Director for Operations, NRC, Subject: Proposed Final Regulatory Guide 1.164, "Time Response Design Criteria for Safety-Related Operator Actions," to Resolve Generic Safety Issue B-17."
3. American Nuclear Society, American National Standard, ANSI/ANS 58.8-1994, "Time Response Design Criteria for Safety-Related Operator Actions," August 23,1994.