ACRSR-2009

October 1, 2002

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

Dear Dr. Travers:

SUBJECT: DRAFT REGULATORY GUIDE DG-1120 AND STANDARD REVIEW PLAN SECTION 15.0.2 CONCERNING NRC REVIEWS OF TRANSIENT AND ACCIDENT ANALYSIS METHODS

During the 495th meeting of the Advisory Committee on Reactor Safeguards, September 12-14, 2002, we met with representatives of the NRC staff to discuss Draft Regulatory Guide DG-1120 (DG-1120), "Transient and Accident Analysis Methods," and draft final Standard Review Plan Section 15.0.2 (SRP 15.0.2), "Review of Transient and Accident Analysis Methods." Our Subcommittee on Thermal-Hydraulic Phenomena also reviewed these documents during a meeting on July 17, 2002. We also had the benefit of the documents referenced.

RECOMMENDATION

The Draft DG-1120 and SRP 15.0.2 should be issued for public comment after the minor differences between Section 5 of the Regulatory Guide and Section 6 of the Standard Review Plan Section have been reconciled.

DISCUSSION

The NRC staff has developed a Draft DG-1120 and SRP 15.0.2 to document a set of general principles and specific expectations applicable to both the form and content of applicants' code submittals, and the staff's review of those submittals. The staff undertook this effort in response to concerns identified by the NRC (Maine Yankee Lessons Learned Report) and the ACRS (review of the AP600 passive plant design).

Our Thermal-Hydraulic Phenomena Subcommittee held meetings with the NRC staff to discuss the status of its work in December 1998, November 1999, and April 2000. At that time, the Subcommittee concluded that, although the SRP 15.0.2 was ready to be issued for public comment, the accompanying Draft Regulatory Guide, then identified as DG-1096, needed substantial improvement. We reviewed revisions of both documents during our May 2000 meeting, and the documents were later issued for public comment. Subsequent to closure of the public comment period, the staff held a workshop with representatives of the nuclear industry. Based on concerns expressed by industry representatives pertaining to regulatory

burden, the staff decided to make revisions to the Regulatory Guide. DG-1120 is the current revised version of DG-1096.

The major public comments concerned the degree to which the process described in DG-1096 applied to small changes in approved analysis methods. It was suggested that, for such changes, the extent and scope of the submission could be appropriately abridged.

In response, the staff has added a new Section 5 to the Regulatory Guide (now identified as DG-1120), describing a graded approach which specifies the extent to which the full Evaluation Model Development and Assessment Process may be reduced for a specific application. We agree with the proposed graded approach defined in the revised regulatory guide.

The rest of DG-1120 is substantially unchanged from the document that we previously reviewed and supported. We see no need to alter it. Several thermal-hydraulic codes are currently under review or will shortly be reviewed by the staff. The DG-1120 will be a useful reference document for applicants, the staff, and the ACRS. We look forward to its expeditious publication and implementation.

The Draft SRP 15.0.2 has also been modified. It is somewhat inconsistent with DG-1120. We have discussed these inconsistencies with the staff and they have agreed to reconcile these documents.

ACRS Member Graham M. Leitch did not participate in the Committee's deliberations on this matter.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References:

1. U.S. Nuclear Regulatory Commission, Draft Regulatory Guide DG-1120, "Transient and Accident Analysis Methods," dated June 2002.
2. U. S. Nuclear Regulatory Commission Draft Standard Review Plan Section 15.0.2, "Review of Transient and Accident Analysis Methods," December 2000.
3. Memorandum dated May 31, 2002, from Gary Holahan, Office of Nuclear Reactor Regulation, NRC, to Farouk Eltawila, Office of Nuclear Regulatory Research, NRC, Subject: Office of Nuclear Reactor Regulation Comments on Revisions to DG-1096 and Draft SRP Section 15.0.2.
4. Letter dated March 22, 1999, from Dana A. Powers, Chairman, ACRS, to William D. Travers, Executive Director for Operations, NRC, Subject: Lessons Learned from the ACRS Review of the AP600 design.
5. Letter dated October 7, 1996, from Shirley Ann Jackson, Chairman, NRC, to Honorable Angus King, Governor of Maine, transmitting U.S. Nuclear Regulatory Commission Report, "Independent Safety Assessment of Maine Yankee Atomic Power Company," October 1996.