ACRSR-2031

April 21, 2003

The Honorable Nils J. Diaz
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: DRAFT FINAL RISK-INFORMED REVISION TO 10 CFR 50.44, "COMBUSTIBLE GAS CONTROL IN CONTAINMENT"

Dear Chairman Diaz:

During the 501st meeting of the Advisory Committee on Reactor Safeguards, April 10-12, 2003, we reviewed a draft final rulemaking package for a risk-informed revision to Title 10, Section 50.44, of the *Code of Federal Regulations* (10 CFR 50.44), "Combustible Gas Control in Containment." During our review, we had the benefit of discussions with representatives of the NRC staff. We also had the benefit of the documents referenced.

Recommendation

The Commission should approve the proposed rule for a risk-informed revision to 10 CFR 50.44.

Discussion

In a Staff Requirements Memorandum (SRM) dated February 3, 2000, the Commission approved proceeding with the plan for risk-informing the technical requirements of 10 CFR Part 50. Section 50.44 was selected as a trial case for risk-informing 10 CFR Part 50. In Attachment 2 to SECY-00-0198, dated September 14, 2000, the staff assessed the risk-significance of combustible gas control for the various types of containments. In our report dated September 13, 2000, we concluded that this work provided the basis for developing a risk-informed revision to 10 CFR 50.44 that could provide a safety benefit while reducing unnecessary burden for licensees. We therefore recommended that the Commission should direct the staff to proceed with rulemaking.

In our letter dated December 12, 2001, we concluded that the proposed rule would provide effective and efficient regulation to deal with combustible gases in containments. We requested an opportunity to review the proposed final rule after reconciliation of public comments.

The staff provided us with its draft final rule language, including reconciliation of public comments, and associated documents on March 14, 2003. The draft final rule retains requirements for (i) hydrogen control systems for Mark III and ice condenser containments,

(ii) inerting Mark I and Mark II containments, and (iii) ensuring a mixed atmosphere in the containment. It also retains the requirement to monitor hydrogen in the containment atmosphere for all containment designs, but it no longer classifies monitors as safety-related components. The draft final rule also codifies the existing regulatory practice of monitoring oxygen concentrations in containments with inerted atmospheres. In addition, it relocates the current requirements for high point vents to a new section identified as 10 CFR 50.46a. The draft final rule eliminates the current design-basis loss-of-coolant accident hydrogen release and requirements for hydrogen recombiners and purge systems to mitigate such a release. It also deletes the requirement prohibiting licensees from venting the reactor coolant system if it could "aggravate" a challenge to containment.

The draft final rule will provide effective and efficient regulation to deal with combustible gases in containments and should be approved.

Sincerely,

/RA/

Mario V. Bonaca
Chairman

References:

1. Letter dated March 14, 2003, from Christopher I. Grimes, Office of Nuclear Reactor Regulation, NRC, to John T. Larkins, Executive Director, ACRS, Subject: Request for Review of Final Part 50 Rulemaking on Risk-Informed Revision of Combustible Gas Control (Predecisional).
2. Memorandum dated February 3, 2000, from Annette Vietti-Cook, Secretary of NRC, to William D. Travers, Executive Director for Operations, NRC, Subject: Staff Requirements - SECY-99-264 - Proposed Staff Plan for Risk-Informing Technical Requirements in 10 CFR Part 50.
3. SECY-00-0198, Memorandum for the Commissioners, from William D. Travers, Executive Director for Operations, NRC, dated September 14, 2000, Subject: Status Report on Study of Risk-Informed Changes to the Technical Requirements of 10 CFR Part 50 (Option 3) and Recommendations on Risk-Informed Changes to 10 CFR 50.44 (Combustible Gas Control).
4. Letter dated December 12, 2001, from George E. Apostolakis, Chairman, ACRS, to William D. Travers, Executive Director for Operations, NRC, Subject: Proposed Rulemaking for Risk-Informed Revisions to 10 CFR 50.44, "Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors."
5. Letter dated September 13, 2000, from Dana A. Powers, Chairman, ACRS, to Richard A. Meserve, Chairman, NRC, Subject: Proposed Risk-Informed Revisions to 10 CFR 50.44, "Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors."