



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

January 15, 1991

The Honorable J. Danforth Quayle
President of the United States Senate
Washington, D.C. 20510

Dear Mr. President:

In accordance with the requirements of Section 29 of the Atomic Energy Act of 1954, as amended by Section 5 of Public Law 95-209, the Advisory Committee on Reactor Safeguards has reported to the Congress each year on the Safety Research Program of the Nuclear Regulatory Commission. In our December 18, 1986 letter to the Congress, we proposed to provide reports on specific issues rather than one all-inclusive annual report.

During the past year, we have reviewed the NRC Safety Research Program and other closely related matters in the following areas:

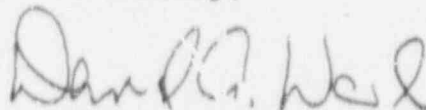
- Nuclear Power Plant Containment Performance Improvement Program
- NRC Safety Research Program Budget
- Severe Accident Research Program
- Evolutionary Light Water Reactor Design Certification Issues
- Human Factors and Other Organizational Issues
- Reactor Pressure Vessel Embrittlement
- NRC Computer Codes and Their Documentation
- Severe Accident Risk Assessment - NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants"

We have provided reports to the Nuclear Regulatory Commission and the NRC staff on the above-mentioned matters. Copies of these reports are enclosed.

January 15, 1991

We expect to continue to review various elements of the NRC Safety Research Program and provide reports to the Commission as warranted.

Sincerely,



David A. Ward
Chairman

Enclosures:

1. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Containment Performance Improvement Program - Proposed Recommendations for MARK II, MARK III, Ice Condenser, and Dry Containments, March 13, 1990.
2. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: NRC Safety Research Program Budget, April 11, 1990.
3. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Severe Accident Research Program, April 24, 1990.
4. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Evolutionary Light Water Reactor Certification Issues and Their Relationship to Current Regulatory Requirements, April 26, 1990.
5. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: NRC Research on Organizational Factors, August 16, 1990.
6. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Yankee Rowe Reactor Pressure Vessel Integrity, September 12, 1990.
7. Report from Carlyle Michelson, ACRS Chairman, to James M. Taylor, Executive Director for Operations, U.S. NRC, Subject: NRC Computer Codes and Their Documentation, October 11, 1990.
8. Report from Carlyle Michelson, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Review of NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants," November 15, 1990.