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 each year to the Congress on the Safety Research Program of the Nuclear Regulatory Commission.

In our December 18, 1986 letter to the Congress, we proposed to provide more focused reports on specific research issues rather than one all-inclusive annual report. The Commission agreed with our suggestion, and then NRC Chairman Zech submitted a legislative proposal in the form of a draft bill to the 100th Congress on December 2, 1987 to amend Section 29 of the Atomic Energy Act of 1954 to accomplish this. Since the 100th Congress did not act on this matter, he submitted a similar, but somewhat modified, legislative proposal on February 2, 1989 to the 101st Congress for consideration. We expect that the Congress will consider this matter during this year.

In the past year we have reviewed the NRC safety rsearch program and other closely related matters in the following areas:

- ° Accident Management Strategies
- ° Application of Leak-Before-Break Technology
- ° Containment Performance
- ° Containment Structural Integrity
- ° Embrittlement of Reactor Pressure Vessel Supports
- ° Fire Risk Scoping Study
- ° Human Factors Research Program Plan
- O Inservice Inspection of Boiling Water Reactor Pressure Vessels
- ° Occupational Radiation Exposure to Skin from Hot Particles
- ° Piping Integrity
- ° Severe Accident Research Program Plan
- $^{\circ}$ Thermal-Hydraulic Phenomena.

We have provided reports to the Commission on several of the matters mentioned above and copies of these reports are attached.

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

Sincerely,

Carlyle Michelson Chairman

Attachments:

- Report from Forrest J. Remick, ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: Additional Applications of Leak-Before-Break Technology, March 14, 1989
- 2. Report from Forrest J. Remick, ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: Proposed Severe Accident Research Program Plan, March 15, 1989
- 3. Report from Forrest J. Remick, ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: NRC's Human Factors Programs and Initiatives, May 9, 1989
- 4. Report from Forrest J. Remick, ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants," May 9, 1989
- 5. Report from Forrest J. Remick, ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: Generic Letter Related to Occupational Radiation Exposure of Skin from Hot Particles, May 9, 1989
- 6. Report from David A. Ward, Acting ACRS Chairman, to Lando W. Zech, U.S. NRC Chairman, Subject: NRC Thermal-Hydraulic Research Program, June 15, 1989
- 7. Report from Forrest J. Remick, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Proposed Staff Actions Regarding the Fire Risk Scoping Study (NUREG/CR-5088), July 18, 1989
- 8. Report from Forrest J. Remick, ACRS Chairman, to Kenneth M. Carr, U.S. NRC Chairman, Subject: Draft Supplement 2 to Generic Letter 88-20, "Accident Management Strategies for Consideration in the Individual Plant Examination Process," November 20, 1989

The Honorable Thomas S. Foley Speaker of the United States House of Representatives Washington, D.C. 20515

Dear Mr. Speaker:

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- ° Human Factors Research Program Plan
- ° Inservice Inspection of Boiling Water Reactor Pressure Vessels
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- ° Severe Accident Research Program Plan
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