

D940223

The Honorable Albert Gore, Jr.
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 (ACRS) has reported to the Congress each year on the Safety Research Program of the Nuclear Regulatory Commission (NRC). In our December 18, 1986, letter to the Congress, we proposed to provide reports on specific issues rather than one all-inclusive report, as had been provided before 1986.

In 1993, we reviewed various NRC activities, several of which included significant research elements directed to the reduction of uncertainties in the present knowledge base. Enclosed are copies of the reports that we have provided to the NRC during the past year on these matters. We expect to continue to review various elements of the NRC Safety Research Program and provide reports to the Commission as warranted.

Sincerely,

J. Ernest Wilkins, Jr.
Chairman

Enclosures:

1. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Issues Pertaining to the Advanced Reactor (PRISM, MHTGR, and PIUS) and CANDU 3 Designs and their Relationship to Current Regulatory Requirements, February 19, 1993
2. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Computers in Nuclear Power Plant Operations, March 18, 1993
3. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Human Performance in Operating Events, March 19, 1993
4. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Definition of a Large Release for Use With Safety Goal Policy, April 22, 1993
5. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor (ALWR) Designs," April 26, 1993
6. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Review of Organizational Factors Research Program, April 27, 1993
7. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S.

NRC Chairman, Subject: Staff Approach for Assessing the Consistency of the Present Regulations with Respect to the Commission's Safety Goals, May 26, 1993 (Revised June 16, 1993)

8. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Proposed Draft Regulatory Guides, DG-1023, "Evaluation of Reactor Pressure Vessels With Charpy Upper-Shelf Energy Less Than 50 Ft-Lb," and DG-1025, "Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence," July 15, 1993
9. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Proposed Rule Amending Fracture Toughness Requirements for Light Water Reactor Pressure Vessels, Proposed Rule Regarding Requirements for Thermal Annealing of Reactor Pressure Vessels, and Draft Regulatory Guide on Format and Content of Application for Approval for Thermal Annealing of Reactor Pressure Vessels, September 20, 1993
10. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Computers in Nuclear Power Plant Operations, November 16, 1993
11. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: NRC Confirmatory Test Program in Support of the AP600 Design Certification, November 18, 1993
12. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Thermo-Lag Fire Barriers, December 16, 1993
13. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Diversity of the Method of Measuring Reactor Pressure Vessel Water Level in the Advanced and Simplified Boiling Water Reactor Designs, December 16, 1993

D940223

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

Dear Mr. Speaker:

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 (ACRS) has reported to the Congress each year on the Safety Research Program of the Nuclear Regulatory Commission (NRC). In our December 18, 1986, letter to the Congress, we proposed to provide reports on specific issues rather than one all-inclusive report, as had been provided before 1986.

In 1993, we reviewed various NRC activities, several of which included significant research elements directed to the reduction of uncertainties in the present knowledge base. Enclosed are copies of the reports that we have provided to the NRC during the past year on these matters. We expect to continue to review various elements of the NRC Safety Research Program and provide reports to the Commission as warranted.

Sincerely,

J. Ernest Wilkins, Jr.
Chairman

Enclosures:

1. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Issues Pertaining to the Advanced Reactor (PRISM, MHTGR, and PIUS) and CANDU 3 Designs and their Relationship to Current Regulatory Requirements, February 19, 1993
2. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Computers in Nuclear Power Plant Operations, March 18, 1993
3. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Human Performance in Operating Events, March 19, 1993
4. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Definition of a Large Release for Use With Safety Goal Policy, April 22, 1993
5. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor (ALWR) Designs," April 26, 1993
6. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Review of Organizational Factors Research Program, April 27, 1993
7. Report from Paul Shewmon, ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Staff Approach for Assessing the Consistency of the Present Regulations with Respect to the Commission's Safety Goals, May 26, 1993 (Revised June 16, 1993)
8. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Proposed Draft Regulatory Guides, DG-1023, "Evaluation of Reactor Pressure Vessels With Charpy Upper-Shelf Energy Less Than 50 Ft-Lb," and DG-1025, "Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence," July 15, 1993
9. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Proposed Rule Amending Fracture Toughness Requirements for Light Water Reactor Pressure Vessels, Proposed Rule Regarding Requirements for Thermal Annealing of Reactor Pressure Vessels, and Draft Regulatory Guide on Format and Content of Application for Approval for Thermal Annealing of Reactor Pressure Vessels, September 20, 1993

10. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Computers in Nuclear Power Plant Operations, November 16, 1993
11. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: NRC Confirmatory Test Program in Support of the AP600 Design Certification, November 18, 1993
12. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to Ivan Selin, U.S. NRC Chairman, Subject: Thermo-Lag Fire Barriers, December 16, 1993
13. Report from J. Ernest Wilkins, Jr., ACRS Chairman, to James M. Taylor, Executive Director for Operations, Subject: Diversity of the Method of Measuring Reactor Pressure Vessel Water Level in the Advanced and Simplified Boiling Water Reactor Designs, December 16, 1993