

July 9, 2003

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

Dear Chairman Diaz:

**SUBJECT: SUMMARY REPORT - 503<sup>rd</sup> MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, JUNE 12-13, 2003, AND OTHER RELATED ACTIVITIES OF THE COMMITTEE**

During its 503<sup>rd</sup> meeting, June 12-13, 2003, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the report and memorandum listed below:

REPORT:

A report was issued on June 24, 2003, to Nils J. Diaz, Chairman, NRC, from Mario V. Bonaca, Chairman, ACRS, on Update to License Renewal Guidance Documents: Response to Staff Requirements Memorandum dated July 17, 2002.

MEMORANDUM:

A memorandum was issued to William D. Travers, Executive Director for Operations, NRC, from John T. Larkins, Executive Director, ACRS, Revision 4 to Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated June 13, 2003.

HIGHLIGHTS OF KEY ISSUES

1. Workshop on Safety Culture

The ACRS held a workshop on June 12, 2003 regarding safety culture at nuclear power plants. Topics discussed by the industry and the NRC staff included: initiatives, methodologies, guidelines, and adopted approaches for safety culture; effective criteria for evaluating safety culture; assessing the rigors of safety culture programs; and the implications of safety culture on safe operation of nuclear power plants. Specific objectives of the workshop included gathering information on domestic and international activities, and determining the attributes of effective safety culture. The workshop was organized into two panels. One panel discussed the collective understanding of safety culture, and the other panel discussed the attributes of safety culture.

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The morning panel presenters included Mr. Ashok Thadani, Director, NRC Office of Nuclear Regulatory Research; Mr. Charles Dugger, Vice President, Nuclear Operations- Nuclear Energy Institute; Dr. Thomas Murley, Safety Consultant; Mr. Howard Whitcomb, III, Attorney at Law; Mr. William N. Keisler, Nuclear Maintenance Integration Consultants; Mr. David Collins, Engineering Analyst; and Mr. Alan Price, Vice President, Dominion Nuclear, Connecticut.

The afternoon panel presenters included Mr. David Trimble, NRC staff; Ms. Clare Goodman, NRC staff; Mr. George Felgate, Institute of Nuclear Power Operations; Mr. Lew Meyers, Chief Operating Officer-First Energy Nuclear Operating Co.; Mr. Jack Grobe, NRC/Davis-Besse Oversight panel; Mr. Geoff Wright, NRC-Inspection Team Leader; Mr. William O'Connor, Vice President Nuclear Generation-Detroit Edison; and Ms. Sonja B. Haber, Human Performance Analysis Corporation.

#### Committee Action

The Committee plans to discuss its proposed report to the Commission on this matter during the July 9-11, 2003 ACRS meeting.

#### 2. Update to Generic License Renewal Guidance Documents

The Committee heard presentations by and held discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) with regard to the Interim Staff Guidance (ISG) process and selected ISGs, and gathered information for use in developing a response to the Staff Requirements Memorandum (SRM) dated July 17, 2002. In that SRM, the Commission stated that "The ACRS should consider providing a recommendation as to how license renewal guidance documentation should be updated to reflect supporting information, particularly with regard to time-limited aging analyses that should, as a minimum, be included in license renewal applications to maximize the efficiency of the review process and minimize requests for additional information." To date, the staff had developed 16 ISGs, except the one on Standardized Format for License Renewal Applications that was developed by NEI and approved by the staff. The staff discussed in detail certain ISGs, including ISG-16, "Time-Limited Aging Analyses Supporting Information for License Renewal Applications." This ISG was developed in response to the Committee concern that some of the license renewal applications (LRAs) do not include sufficient information on time-limited aging analyses (TLAAs). This ISG is responsive to the SRM, since it directly addresses the supporting information on TLAAs that should be included in LRAs. A representative of NEI stated that the ISG process is effective in addressing technical and process issues and providing timely guidance to the applicants.

#### Committee Action

The Committee issued a report to Chairman Diaz on this matter, dated June 24, 2003. The Committee stated that the ISA process is a major step toward improving the efficiency of the review process and reducing the need for requests for additional information (RAIs). ISG 16 is directly responsive to the SRM issue. The Committee also stated that the staff should consider whether limits and guidance are needed on phosphate ion concentration in below-grade water.

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### 3. Subcommittee Report on the Fort Calhoun License Renewal Application

The License Renewal Subcommittee Chairman, Dr. Bonaca, reported the results of the Subcommittee meeting on June 11, 2003, during which the Subcommittee discussed the Fort Calhoun LRA and the NRC staff's Safety Evaluation Report (SER) with open items. This application is the first one to be submitted in accordance with the Generic License Renewal Guidance document, and it appears that this new process worked well. The staff augmented its documentation review with an extensive on-site inspection/audit of the licensee's program, and this activity proved to be quite useful. The Subcommittee questioned the continuing economic viability of the plant, inasmuch as it is the only nuclear asset owned by the licensee. The licensee and the staff both reported that the material condition of the plant is good, and the licensee indicated its commitment to continued operation of the plant, noting that it has already decided to replace the reactor vessel head, the steam generators, and possibly other major components, in a future outage.

The staff review identified several areas where the licensee implementation of the aging management program was not consistent with the methodology described, but the problems have been almost completely resolved between the staff and the licensee. The remaining open items involve staff verification of licensee commitments, which are expected to be resolved before the next full Committee meeting in November 2003. Dr. Bonaca reported that the licensee has developed a reasonable program to deal with (1) "one-time" inspections and (2) Alloy-600 components.

#### Committee Action

The Committee decided not to write an interim report since there are no significant issues. The Committee plans to review the NRC staff's final SER during its November 2003 meeting and issue a report to the Commission.

#### RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the response from the EDO dated June 4, 2003, to the ACRS report dated April 21, 2003, concerning the Proposed Resolution of Public Comments on Draft Regulatory Guide (DG)-1122, "An Approach for Determining the Technical Adequacy of PRA Results for Risk-Informed Activities."

The Committee decided that it was satisfied with the EDO's response.

- The Committee considered the response from the EDO dated May 21, 2003, to the ACRS report dated April 21, 2003, concerning the Draft Final Risk-Informed Revision to 10 CFR 50.44, "Combustible Gas Control in Containmentment."

The Committee decided that it was satisfied with the EDO's response.

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#### OTHER RELATED ACTIVITIES OF THE COMMITTEE

During the period from May 8, 2003, through June 11, 2003, the following Subcommittee meetings were held:

- Safeguards and Security Subcommittee - May 21-23, 2003

The Subcommittee held a closed meeting at the Sandia National Laboratories, Albuquerque, New Mexico, to discuss safeguards and security matters. The entire meeting was closed to public attendance to protect information classified as national security information pursuant to 5 U.S.C. 552b(c)(1).

- Plant Operations Subcommittee - June 10, 2003

The Subcommittee heard presentations by and held discussions with representatives of the Region I staff and other interested persons regarding matters related to plant and region operations. The meeting was held in the Region I Office, King of Prussia, Pennsylvania.

- Plant License Renewal Subcommittee - June 11, 2003

The Subcommittee reviewed the license renewal application for the Fort Calhoun Station Unit 1 and the NRC staff's SER with open items. The Subcommittee heard presentations by and held discussions with representatives of the NRC staff, the Omaha Public Power District, and other interested persons regarding this matter.

- Planning and Procedures Subcommittee - June 11, 2002

The Subcommittee discussed proposed ACRS activities, practices, and procedures for conducting Committee business and organizational and personnel matters relating to ACRS and its staff.

#### LIST OF MATTERS FOR THE ATTENTION OF THE EDO

- The Committee plans to review the NRC staff's final SER associated with the license renewal application for the Fort Calhoun Station Unit 1 during its November 6-8, 2003, meeting.
- The Committee plans to discuss safety culture of nuclear power plants during future meetings, as appropriate.

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PROPOSED SCHEDULE FOR THE 504<sup>th</sup> ACRS MEETING

The Committee agreed to consider the following topics during the 504<sup>th</sup> ACRS meeting, to be held on July 9-11, 2003:

- Safeguards and Security [Closed pursuant to 5 U.S.C. 552b(c)(1)]
- ESBWR Pre-Application Review
- Proposed Criteria for the Treatment of Individual Requirements in Regulatory Analyses
- Mixed Oxide Fuel Fabrication Facility
- Expert Elicitation in Support of Risk-Informing 10 CFR 50.46
- Report on Safety Culture

Sincerely,

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Mario V. Bonaca  
Chairman