



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

SL-0443

PDR 5/8/97

October 4, 1996

The Honorable Shirley Ann Jackson
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Chairman Jackson:

SUBJECT: SUMMARY REPORT - FOUR HUNDRED THIRTY-FOURTH MEETING OF
THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, SEPTEMBER
12-13, 1996, AND OTHER RELATED ACTIVITIES OF THE
COMMITTEE

During its 434th meeting, September 12-13, 1996, the Advisory
Committee on Reactor Safeguards (ACRS) discussed the following
matters:

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. Capability of the SCDAP/RELAP5 Code to Predict Steam Generator
Temperatures During Severe Accidents

The Committee heard presentations by and held discussions with
representatives of the NRC staff concerning the capability of
the SCDAP/RELAP5 code to predict steam generator temperatures
and flows under certain severe accident conditions. Items
discussed included the modeling and benchmarking of the
SCDAP/RELAP5 code, fission product deposition, and the
preliminary findings of the independent peer review group
members.

Conclusion

The Committee plans to complete a report on the capability of
the SCDAP/RELAP5 code to predict steam generator tube failure
during severe accidents at its October 9-12, 1996, meeting.

2. Indian Point Unit 3

The Committee heard presentations by and held discussions with
representatives of the licensee (New York Power Authority)
regarding the resolution of issues that led to the shutdown of
Indian Point Unit 3 (IP-3) in February 1993 and the status of
resolution of new issues since restart of the plant in June
1995. The licensee briefed the ACRS on the problems with
personnel and equipment performance at the site. They

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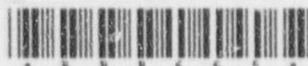
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discussed the ineffectiveness of previous improvement and corrective action programs as well as the continuing nature of problems in plant operational performance and engineering and technical support. The licensee reviewed the latest Systematic Assessment of Licensee Performance including the specific issues within each functional area, the issues related to IP-3 being on the NRC Watchlist as a Category 2 facility (allowed to operate, but weakness warrants increased NRC attention), and the status of corrective action, self-assessment, and improvement programs. The licensee highlighted initiatives to strengthen the operations organization and five principal areas for broad organizational improvement: accountability, material condition and equipment readiness, teamwork, conservative operations, and communications.

Conclusion

This briefing was for information only. No Committee action was required.

3. Meeting with the Director of the NRC Office of Nuclear Regulatory Research

The Committee was briefed by Dr. David L. Morrison, Director of the Office of Nuclear Regulatory Research (RES), on the NRC research program, research priorities, thermal-hydraulic code activities, international cooperative research programs, and Level 3 probabilistic risk assessment for shutdown modes of operation.

Dr. Morrison discussed some of the challenges facing RES, such as the reduction in budget and staffing. He noted that RES has to focus its programs to support regulatory development. Dr. Morrison emphasized the need for increased international collaboration.

Dr. Morrison and Dr. T. Boulette (Chairman of the Nuclear Safety Research Review Committee (NSRRC)) discussed briefly the coordination of activities between ACRS and NSRRC in areas of mutual interest to ensure that the activities are supportive and complementary, not duplicative.

Conclusion

This briefing was for information only. The Committee plans to explore means to improve the coordination between ACRS and NSRRC, including joint meetings of the ACRS and NSRRC Subcommittees on issues of mutual interest and participation of ACRS members at NSRRC meetings and vice-versa.

4. Loss of Feedwater Event at Arkansas Nuclear One Unit 1

The Committee heard presentations by and held discussions with representatives of the NRC staff regarding the results of the Augmented Inspection Team (AIT) investigation of the loss of feedwater event at Arkansas Nuclear One Unit 1 that occurred on May 19, 1996.

Due to a malfunction in the feedwater control system, the plant tripped from 100% power. The event was complicated by a failed open steam generator safety relief valve, the loss of condenser vacuum, and the malfunction of steam generator atmospheric dump valves. The AIT identified weaknesses with a degraded control system power supply, poor plant maintenance practices, an inadequate plant modification, and the failure to correct a known plant deficiency.

Conclusion

This briefing was for information only. No Committee action was required.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee discussed the response from the NRC Executive Director for Operations dated September 5, 1996, responding to ACRS comments and recommendations included in the ACRS report dated August 15, 1996, concerning Design Changes Proposed by General Electric Nuclear Energy Relating to the Certification of the U.S. Advanced Boiling Water Reactor Design.

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

- The Committee discussed the response from the NRC Executive Director for Operations dated September 5, 1996, responding to ACRS comments and recommendations included in the ACRS report dated August 14, 1996, concerning Design Changes Proposed by ASEA Brown Boveri-Combustion Engineering Relating to the Certification of the System 80+ Design.

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

- The Committee discussed the response from the NRC Executive Director for Operations dated September 6, 1996, responding to ACRS comments and recommendations included in the ACRS report dated August 15, 1996, concerning Risk-Informed, Performance-Based Regulation and Related Matters.

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

- The Committee discussed the e-mail response from the NRC staff dated August 26, 1996, responding to ACRS comments and recommendations included in the ACRS report dated June 5, 1996, concerning the Implementation of the Regulatory Review Group Recommendations.

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

OTHER RELATED ACTIVITIES OF THE COMMITTEE

During the period from August 9 through September 11, 1996, the following Subcommittee meeting was held:

- Planning and Procedures - September 11 1996

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

FOLLOW-UP MATTER FOR THE EXECUTIVE DIRECTOR FOR OPERATIONS

The Committee expressed an interest in being briefed on the bora-flex degradation and the staff response to the issues raised by the Commission in its August 27, 1996, Staff Requirements Memorandum.

PROPOSED SCHEDULE FOR THE 435TH ACRS MEETING

The Committee agreed to consider the following during the 435th ACRS Meeting, October 9-12, 1996:

Joint Meeting with Canadian Advisory Committee on Nuclear Safety - The Committee will hold a one-day meeting on October 9, 1996, with the Canadian Advisory Committee on Nuclear Safety. Topics to be discussed include: risk-informed, performance-based regulation, plant aging, operator training and simulator use, and digital instrumentation and control systems.

Status of NRC Strategic Assessment and Rebaselining Effort - The Committee will hear a presentation by and hold discussions with the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research regarding the status of the NRC strategic assessment and rebaselining effort.

Digital Instrumentation and Control Systems - The Committee will hear presentations by and hold discussions with representatives of

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the NRC staff regarding the proposed Standard Review Plan Sections and Branch Technical Positions associated with the digital instrumentation and control systems.

Representatives of the nuclear industry will participate, as appropriate.

Control Room Back-Panel Fire at Palo Verde Unit 2 - The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the findings and recommendations resulting from the investigation of the April 4, 1996 event, which involved two related fires in a back panel of the main control room of Palo Verde Unit 2.

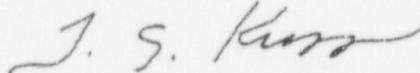
Representatives of the licensee will participate, as appropriate.

Activities Associated with the NRC Thermal Hydraulic Codes - The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the staff activities associated with the NRC thermal hydraulic codes.

Representatives of the nuclear industry will participate, as appropriate.

Report by the Acting Chairman of the Human Factors Subcommittee - The Committee will hear a report by the acting Chairman of the Human Factors Subcommittee regarding matters discussed during the September 20, 1996, Subcommittee meeting.

Sincerely,

A handwritten signature in dark ink, appearing to read "T. S. Kress", written in a cursive style.

T. S. Kress
Chairman