



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

SL-0373

PDR 10/11/90

August 27, 1990

The Honorable Kenneth M. Carr
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Carr:

SUBJECT: SUMMARY REPORT - THREE HUNDRED SIXTY-FOURTH MEETING OF
THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS,
AUGUST 9-11, 1990

During its 364th meeting, August 9-11, 1990, the Advisory Committee on Reactor Safeguards discussed several matters and completed the reports noted below. A summary of the activities of the Committee during this meeting is given below.

REPORTS TO THE COMMISSION

- Level of Detail Required for Design Certification Under Part 52 (Report to Chairman Carr, dated August 14, 1990)
- Proposed Resolution of Generic Safety Issue B-56, "Diesel Generator Reliability" (Report to Chairman Carr, dated August 14, 1990)
- NRC Research Program on Organizational Factors (Report to Chairman Carr, dated August 16, 1990)
- Support Staff for ACNW Activities (Joint ACRS/ACNW Report to Chairman Carr, dated August 9, 1990).

HIGHLIGHTS OF MATTERS CONSIDERED BY THE COMMITTEE

- Requirements for Essentially Complete Design

The Committee heard presentations by and held discussions with representatives of the NRC staff regarding the four options for the level of detail required for design certification under 10 CFR Part 52 that are delineated in SECY-90-241, "Level of Detail Required for Design Certification Under Part 52," dated July 11, 1990. Representatives of NUMARC and their consultants also presented their views to the Committee on this matter.

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The Committee provided a report to the Commission on this matter. It suggested that some form of the two-tier approach proposed by NUMARC is essential and that the staff and the industry develop criteria to define the division between the two tiers. The Committee expressed its willingness to review such criteria, as progress is made in this effort, and report to the Commission if the Commission wishes that this be done.

- Proposed Resolution of Generic Issue B-56, "Diesel Generator Reliability"

The Committee heard presentations by and held discussions with representatives of the NRC staff regarding the proposed resolution of Generic Issue B-56. Representatives of NUMARC also presented their views, including their differences with the staff on some specific regulatory requirements resulting from the resolution of this generic issue.

The Committee provided a report to the Commission on this matter.

- NRC Research Program on Organizational Factors

The Committee heard presentations by and held discussions with representatives of the NRC staff regarding the NRC research program on Organizational Factors that is intended to provide a scientific basis for improving the organizations responsible for the operation of nuclear power plants.

The Committee provided a report to the Commission on this matter; it plans to follow the progress of this research program with interest.

- Incident Investigation Team (IIT) Report on the Alvin W. Vogtle Nuclear Plant Event

Members of the IIT briefed the Committee on the details of their investigation of the loss of vital AC power/loss of decay heat removal event that occurred during shutdown mode of operation at Unit 1 of the Vogtle nuclear plant on March 20, 1990.

The staff plans to brief the Committee at an appropriate time in the future on the status of its actions on this matter.

- EPRI-ALWR Requirements Document

The Committee heard presentations by representatives of EPRI regarding Chapters 1-5 of the EPRI-ALWR Requirements Document. The Committee was informed that significant changes have been

made to this document in response to numerous comments received from the industry and other sources; a revised version of this document is expected to be made available by the end of August 1990. The Committee decided not to comment on this matter until after completing its review of the revised version of this document.

- Severe Accident Risk Report (NUREG-1150)

Dr. Kouts, Chairman of the Special Committee to Review the Severe Accident Risk Report, briefed the Committee on the findings, recommendations, and conclusions of the Special Committee resulting from its review of NUREG-1150.

- Reactor Operating Experience

Representatives of the NRC staff briefed the Committee on the details of the feedwater pipe break event that occurred at the Loviisa Nuclear Plant Unit 1 plant on May 28, 1990. While the plant was operating at about 60 percent power, it experienced a guillotine break in the 12.8-inch carbon steel main feedwater piping. The Committee was informed that the cause of the pipe rupture was due to erosion/corrosion of the pipe wall.

- Solenoid Valve Case Study

Representatives of the Office for Analysis and Evaluation of Operational Data (AEOD) briefed the Committee regarding the AEOD case study related to the problems experienced with the solenoid-operated valves at U.S. nuclear power plants. The AEOD staff plans to brief the Committee on this matter after the industry comments on the draft report related to this matter have been received and resolved.

- Legal Services for the ACRS

The Committee has received your response of August 1, 1990 to its letter of July 17, 1990 regarding the prohibition on ACRS use of outside legal services. The Committee plans to discuss this matter further during its September 6-8, 1990 meeting.

SUBCOMMITTEE MEETINGS

Since the last summary report of ACRS activities, the following Subcommittee meetings have been held:

- Human Factors, July 31, 1990

The Subcommittee discussed the NRC research program on Organizational Factors and procedure violations in U.S. nuclear power plants (Chernobyl follow-up item).

- AC/DC Power Systems Reliability, August 8, 1990

The Subcommittee discussed the proposed resolution of Generic Issue B-56, "Diesel Generator Reliability."

- Improved Light Water Reactors, August 8, 1990

The Subcommittee discussed the level of detail required for design certification under 10 CFR Part 52.

FUTURE ACTIVITIES

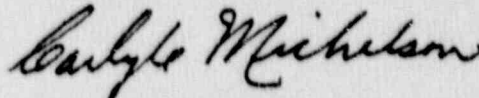
The Committee agreed to the following tentative schedule for the 365th, September 6-8, 1990, ACRS meeting:

- Reactor Operating Experience - Briefing and discussion on information and experience gained from nuclear power plant operations, including the Westinghouse Owners Group study justifying reduction in turbine stop valve testing frequency, and the impact of noncondensable gases on performance of nuclear power plant safety systems. Members of the NRC staff will participate, as appropriate.
- NRC Quantitative Safety Goals - Discussion regarding the status of NRC plans for implementation of Quantitative Safety Goals for nuclear power plants.
- Activities of ACRS Subcommittees - Reports and discussion regarding the status of designated subcommittee activities, including reports of the Thermal-Hydraulic Phenomena and Human Factors Subcommittees. The report of the Safety Research Program Subcommittee on the scope and content of the ACRS annual report to the Congress on the NRC Safety Research Program will also be discussed.
- Reactor Coolant Pump Seal Failures (Generic Issue 23)
Review and comment on proposed resolution of this generic issue. Members of the NRC staff and the nuclear industry will participate, as appropriate.
- Nine Mile Point Nuclear Plant, Unit 1 - Briefing and discussion of the status of Nine Mile Point, Unit 1 restart by representatives of the NRC staff and the licensee, as appropriate.

August 27, 1990

- Performance-Based Quality Assurance - Information briefing and discussion regarding use of performance-based quality assurance requirements and the associated revision of the NRC Standard Review Plan.
- Foreign Activities - Report and discussion of NRC-USSR meeting on aspects of nuclear power plant safety related to radiation embrittlement and annealing, severe accidents, erosion/corrosion attack of piping and components, and fire protection for nuclear facilities.
- Generic Safety Issues - Discussion and comment regarding proposed priority rankings for a group of new generic safety issues. Members of the NRC staff will participate, as appropriate.
- Yankee Rowe Nuclear Power Plant - Discussion and report regarding the status of the Yankee Rowe reactor pressure vessel radiation embrittlement. Representatives of the NRC staff and the licensee will participate, as appropriate.
- Systematic Assessment of Licensee Performance - Discuss proposed ACRS comments on the NRC SALP program.
- Reactor Risk Assessment Document (NUREG-1150) - Discuss proposed ACRS comments on the NRC report, NUREG-1150, Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants.
- Conduct of ACRS Activities - Discussion with representatives of the Office of the General Counsel regarding conduct of ACRS subcommittee and subgroup activities. Discussion among members regarding limitations on ACRS use of "outside" legal consultants.

Sincerely,



Carlyle Michelson
Chairman