



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

November 6, 1989

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

Dear Chairman Carr:

SUBJECT: THREE HUNDRED FIFTY-FOURTH MEETING OF THE ADVISORY COMMITTEE ON
REACTOR SAFEGUARDS, OCTOBER 5-6, 1989

ACRS REPORTS, LETTERS, AND MEMORANDA

The Committee prepared a report on the Proposed Revised Policy Statement on the Maintenance of Nuclear Power Plants. (Report to Chairman Carr, dated October 12, 1989)

The Committee prepared a report entitled ACRS Comments on the Safety Goal Policy and Its Relationship to the Concept of Adequate Protection. (Report to Chairman Carr, dated October 11, 1989)

The Committee prepared a letter on Proposed Resolution of Generic Issue 135, "Steam Generator and Steam Line Overfill Issues." (Letter to James M. Taylor, Acting Executive Director for Operations, dated October 11, 1989)

Copies of these reports have been provided to you.

OTHER ACTIONS, AGREEMENTS, ASSIGNMENTS, AND REQUESTS

The Committee discussed the NRC staff's proposed resolutions of Generic Issue B-56, "Diesel Generator Reliability," and Generic Issue 87, "Failure of HPCI Steam Line Without Isolation," with representatives of the NRC staff. The Committee plans to continue its discussion of these issues during the November 16-18, 1989 ACRS meeting.

The Committee was briefed by E. Beckjord, RES, regarding the impact of the budget reductions imposed by the Congress on the NRC Safety Research Program. The Committee discussed the budget reductions that had been imposed on the NRC over recent years and the manner in which these reductions had been distributed among NRC programs. Members proposed this matter as an item to be discussed with the Commissioners during a future meeting.

The Committee decided not to review the proposed restart of the Calvert Cliffs plant when equipment and management deficiencies have been resolved.

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The Committee discussed its plans for the review of NRC staff actions related to license extensions. The first of the future applications for license extensions is expected to be for the Yankee Rowe plant. NRC staff review of this extension will be carried out in parallel with the development of the staff's generic guidance/requirements for licensees seeking license extensions. The Committee decided to review the Yankee Rowe application for a license extension as a separate item.

The Committee discussed the qualifications of individuals being considered for nomination to the Committee and agreed to send the names of three individuals to the Commission for consideration for appointment as new members. (See R. F. Fraley memorandum to you dated October 13, 1989.)

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

- Containment Systems and Structural Engineering, September 12, 1989 - The Subcommittee discussed containment design criteria for future plants with invited speakers from industry and national laboratories.
- Severe Accidents and Probabilistic Risk Assessment, September 19, 1989 - The Subcommittee discussed the second draft of NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants."
- Severe Accidents, September 20, 1989 - The Subcommittee discussed the proposed Generic Letter by NRR on accident management and the NRC research program and NUMARC/EPRI activities in the accident management area.
- Safety Philosophy, Technology, and Criteria, September 26, 1989 - The Subcommittee discussed the preparation of a joint paper by the ACRS and the NRC which describes their respective positions on "adequate protection."
- Human Factors, September 27, 1989 - The Subcommittee discussed the proposed Access Authorization Rule and the NRC staff's work on performance indicators.
- Advanced Pressurized Water Reactors, September 28, 1989 - The Subcommittee discussed the WAPWR (RESAR SP/90) design.
- AC/DC Power Systems Reliability, October 2, 1989 - The Subcommittee discussed the proposed final resolution of Generic Issue B-56, "Diesel Generator Reliability" and proposed Revision 3 to Regulatory Guide 1.9, "Selection, Design, Qualification, Testing, and Reliability of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants."
- Mechanical Components, October 3, 1989 - The Subcommittee discussed the NRC staff's proposed resolution for Generic Issue 87, "Failure of HPCI Steam Line Without Isolation."

- ° Probabilistic Risk Assessment, October 3-4, 1989 - The Subcommittee discussed the uses of and the state of development of probabilistic risk assessment.

FUTURE AGENDA

The Committee agreed to the following tentative schedule for the 355th ACRS meeting, November 16-18, 1989:

Accident Management - Review and comment regarding proposed accident management strategies for consideration in Individual Plant Examinations.

Advanced Pressurized Water Reactors - Briefing by NRC staff members regarding the status of review of the proposed standardized advanced pressurized water reactors.

TMI-2 Accident Evaluation - Briefing regarding status of the TMI-2 post-accident evaluation effort.

Nine Mile Point Unit 1 - Review and report on proposed restart of this BWR plant. Representatives of the NRC staff and licensee will participate as appropriate.

GE Advanced Boiling Water Reactors - Review and comment on Module I of this standardized advanced BWR design.

Nuclear Power Plant Access Authorization - Review and comment on proposed final rule regarding access authorization to controlled areas of nuclear power plants.

Integration of the Regulatory Process - Discuss proposed ACRS report on proposed integration of the NRC regulatory process.

Generic Issue B-56, Diesel Reliability and Proposed Regulatory Guide 1.9, Revision 3 - Discuss proposed ACRS report regarding NRC staff's proposed resolution of this generic issue.

Generic Issue 87, Failure of HPCI Steam Line Without Isolation - Discuss proposed ACRS report regarding NRC staff's proposed resolution of this generic issue.

Sincerely,



Forrest J. Remick
Chairman



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

October 11, 1989

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

Dear Chairman Carr:

SUBJECT: ACRS COMMENTS ON THE SAFETY GOAL POLICY AND ITS RELATIONSHIP TO
THE CONCEPT OF ADEQUATE PROTECTION

During the 354th meeting of the Advisory Committee on Reactor Safeguards, October 5-6, 1989, we discussed implementation of the Commission's Safety Goal Policy and the relationship of the concept of adequate protection to this policy. This was in response to a staff requirements memorandum (SRM) from Mr. Chilk to Mr. Fraley dated August 21, 1989. We had the benefit of discussions with members of the NRC staff during this meeting. We have previously provided our views on implementation of the Safety Goal Policy in several reports to former Chairman Zech, the most recent of which was dated February 16, 1989. We also met with the Commission on this subject on May 3, 1989.

Although our discussions with the staff provided a valuable exchange of views, we have not yet come to agreement with the staff on how the concept of adequate protection should be seen as it relates to the Safety Goal Policy, nor have we yet come to agreement with how the Commission's backfit rule, 10 CFR 50.109, comports with the Safety Goal Policy. We expect to be able to clarify areas of agreement and disagreement on these matters within another month or two, after the staff has had an opportunity to consider discussions held during this meeting.

In general, our position remains as stated in previous reports. That is, on the one hand, compliance with the regulations is generally regarded as presumptive evidence that the public is adequately protected from risk associated with operation of a nuclear power plant. On the other hand, as we have proposed, adequacy of the body of regulations should be judged by whether the population of nuclear power plants built and operated under these regulations is causing risk no greater than the objectives given in the Safety Goal Policy.

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October 11, 1989

We believe that the backfit rule, as just one part of the general body of regulations, should be regarded as subordinate to the Safety Goal Policy. We have not developed a position at the present time on whether the backfit rule is entirely consistent with the policy. As we have recommended before, we believe a systematic review of the whole body of regulations and regulatory practice, to assess consistency with the safety goal, should be undertaken. We are not suggesting a massive, resource-intensive effort, but believe plans for a program with carefully developed goals and priorities should be started soon.

We note that, in addition to the issue of adequate protection, there were several other points in our report of February 16, 1989 that described significant disagreements with positions of the staff as expressed in their draft Implementation Plan for the Safety Goal Policy (SECY-89-102), dated March 30, 1989. These disagreements are yet to be resolved.

Sincerely,



Forrest J. Remick
Chairman



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

October 12, 1989

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

Dear Chairman Carr:

SUBJECT: PROPOSED REVISED POLICY STATEMENT ON THE MAINTENANCE OF NUCLEAR
POWER PLANTS

During the 354th meeting of the Advisory Committee on Reactor Safeguards, October 5-6, 1989, we discussed with the NRC staff the proposed revised policy statement on the maintenance of nuclear power plants. During this meeting we had the benefit of the document referenced. We had also discussed this matter during our 353rd meeting, September 7-9, 1989.

The Commission's objective in issuing the policy statement is not clear to us. Since no one doubts that the quality of maintenance plays an important role in assuring the safety of nuclear power plants, we judge that the perceived need for a policy statement derives from a Commission sense that the fact needs to be emphasized and that industry initiatives in the area are insufficient to provide assurance that the common objective is being met. These initiatives have certainly resulted in improvements in most plants, and more improvements are in the pipeline, yet the Commission has directed the staff to continue working toward a rule.

The current version of the proposed policy statement recognizes the importance of developing measuring tools for the effectiveness of maintenance, without which it is difficult to judge whether or not maintenance is a major problem in the industry. Certainly, a study of licensee event reports (LERs) would reveal incidents whose origin is in ineffective maintenance, as it would reveal also some whose origin is in overly zealous maintenance; therefore, it is important to develop those tools necessary to make better than visceral judgments about the direction in which change is needed, if any.

We believe that more input from the regional offices as well as from the public and industry would improve the proposed policy statement. There are a number of contentious elements in it, which will surely not survive careful scrutiny. For example, the proposal that errors in maintenance be penalized more severely than other errors with the same public consequences would encourage licensees to divert resources from other safety-related activities into maintenance, with a net negative impact on public safety. That is surely not the Commission's intent. We are loath to make a big issue of this one

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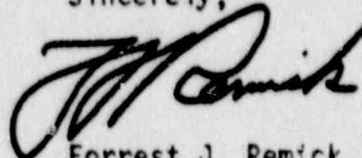
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because it is so manifestly wrong (and the staff has committed to reconsider it).

We recommend that the Commission not rush to judgment on this matter. The proposed policy statement contains the explicit determination (again, surely not intended) that there is no licensee with an acceptable maintenance program, and makes the determination without even a hint of what is acceptable, or how it can be measured. We think it would be best to spend effort in determining just how serious the problem may be, just what it may be, and only then, whether something needs to be done about it. Armed with this information, the Commission will be better able to make defensible choices among possible ameliorative programs. It is not beyond the bounds of probability that it will only be necessary to support and encourage the industry initiatives. If, in the end, it is determined that a policy statement, or even a rule, is necessary, one will have a better idea of just what it should say.

Additional comments by ACRS Member William Kerr are presented below.

Sincerely,



Forrest J. Remick
Chairman

Additional Comments by ACRS Member William Kerr

I am concerned that the Commission appears to be moving inexorably toward an inadequately defined goal. For example, the draft regulatory guide lists several suggested indicators of appropriate maintenance programs, but nowhere is there mention of risk reduction or of increased plant availability, which must surely be important elements in plant performance goals.

I suggest an exercise that should provide useful information to the Commission. Ask the staff to identify, on the basis of information in the recently released version of NUREG-1150, those plants that have acceptable and those that have unacceptable maintenance programs. If this proves feasible, it should enable the staff to identify the characteristics of at least one, and perhaps several, good maintenance programs. It should also permit an identification of the risk reduction attributable to an acceptable maintenance program. If this is not feasible, then it indicates that something judged by the Commission to be a significant contributor to, or reducer of, risk is not identified in what are said to be state-of-the-art analyses of several representative plants.

Reference:

Memorandum dated September 29, 1989 from Bill M. Morris, Office of Nuclear Regulatory Research, for R. F. Fraley, ACRS, Subject: Revised Policy Statement on Maintenance of Nuclear Power Plants (Predecisional)