



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

April 19, 1999

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

Dear Chairman Jackson:

SUBJECT: STATUS OF EFFORTS ON REVISING THE COMMISSION'S SAFETY GOAL POLICY STATEMENT

During the 461st meeting of the Advisory Committee on Reactor Safeguards, April 7-10, 1999, we met with representatives of the NRC staff to discuss the status of efforts on revising the Commission's Safety Goal Policy Statement. Our Subcommittees on Reliability and Probabilistic Risk Assessment and on Regulatory Policies and Practices discussed this matter with the staff on April 7, 1999. We also had the benefit of the documents referenced.

Recommendation. Revision of the Safety Goal Policy Statement for nuclear power reactors is needed and should be accomplished expeditiously.

In our report dated May 11, 1998, we recommended that the Safety Goal Policy Statement be revised to include: (a) a statement regarding the plant-specific use of the safety goals; (b) an expanded treatment of the role of uncertainties; (c) the removal of the general plant performance guideline; (d) a reconsideration of the set of fundamental goals and subsidiary objectives to ensure that they are consistent; and (e) a reconsideration of measures of societal risk such as environmental contamination and the total number of fatalities. We are pleased that the staff has been considering these issues and is proposing to complete its revision of the Safety Goal Policy Statement for reactors in one year. We agree with this proposal which we believe is necessary to develop a better foundation for making reactor regulation risk informed.

Observation. We agree that it would be conceptually desirable to have an "overarching" Policy Statement for all NRC regulated activities. We do not, however, fully agree on the objectives, scope, utility, feasibility and schedule for developing this Policy Statement.

Objectives

The staff is proposing to develop a high-level overarching Policy Statement to include objectives, goals, and approaches that would apply to all NRC regulatory activities. We agree that such a Policy Statement would provide clarity and consistency to the diverse activities at the

NRC, thereby promoting regulatory stability and increased public confidence. Some ACRS members, however, believe that the primary objective at this time should be the implementation of a risk-informed regulatory system for nuclear reactors. If the staff focuses on developing high-level principles and can relate them to specific needs, then a much better case can be made that the staff is solving key problems which have been identified as impeding progress toward risk-informed regulation.

Scope

Some ACRS members would like to see progress that provides practical benefits before the scope of the Policy Statement is broadened to encompass all NRC regulated activities. This will involve first identifying high-priority needs that can feasibly be resolved by the clarification of high-level principles thereby demonstrating that there are practical benefits.

To this end, we prefer that the near-term effort focus primarily on revising the Safety Goal Policy Statement for nuclear power reactors. Some ACRS members believe that a parallel effort to investigate the issues associated with developing an overarching Policy Statement should be initiated at a more conceptual level. After a reasonable period of time, preferably less than a year, the staff should report its findings and conclusions. A better informed decision on the need to broaden this effort could then be made.

Utility

Several ACRS members expressed concern that the development of the proposed overarching Policy Statement would divert NRC resources from other more important activities, without sufficient likelihood of near-term results. For non-reactor activities, development of an overarching Policy Statement may be premature. Even if successful, such a Policy Statement might be a luxury for nuclear power reactors.

The same ACRS members point out that there is a need, at this time, to revise the existing Safety Goal Policy Statement for reactors to address the issues raised in our May 11, 1998 report, and, in particular, to recognize the practical reality that core damage frequency and large, early release frequency are more useful measures of safety for regulatory purposes than are the quantitative health objectives. This effort should not be encumbered by the requirement for consistency with safety measures yet to be defined for non-reactor activities. The development of analytical tools related to risk-informed regulation for nuclear reactors is more urgently needed than an overarching Policy Statement.

Although we do not agree on the staff's proposal to develop an overarching Policy Statement, we do agree that there are potential benefits for undertaking a feasibility study. Such a Policy Statement should provide practical benefits in terms of the efficiency and effectiveness of regulatory oversight of licensee activities.

Other ACRS members expressed the view that the resources being committed to this task are small and that there should be little concern regarding "diversion of resources." They consider this activity to be so important and essential for a proper, coherent, risk-informed regulatory system that the allocation of additional resources is justified. The potential benefits from

developing an overarching Policy Statement applicable to all NRC regulated activities are worth the additional resources required.

The staff's proposal provides overly general assurances of utility of an overarching Policy Statement. We believe that the staff's proposal could be strengthened if, after preliminary exploration that need not be extensive, there is a clear definition of needs and identification of convincing practical use.

Feasibility

Presentations by the staff and industry have indicated that the risk-informed regulatory guides that were published in 1998 are working very well. Several ACRS members believe that this success is due to the fact that the general guidance provided in Regulatory Guide 1.174 starts with a statement of the principles that should govern risk-informed licensing decisions. Therefore, there is evidence to suggest that developing a good set of principles for the overarching Policy Statement is feasible and will lead to a successful outcome.

Several ACRS members believe that development of an overarching Policy Statement is not feasible within a year. These members have raised questions concerning the comparability of risks that have different characteristics. Examples are: (1) the risks from nuclear power plant accidents and high-level waste repository involve vastly different time scales; (2) the risks from nuclear power plants are largely involuntary, while the risks from medical use of radioactive materials can have a substantial voluntary component, and more generally (3) the risks from other industrial applications vary widely in potential accident initiators and frequencies, potential consequences, and populations at risk.

We, therefore, would prefer to see the staff make an early assessment of the feasibility of formulating an overarching Policy Statement through the development of principles. We believe that this will facilitate the development of a more limited Policy Statement that is sufficiently justified and well understood.

Conclusion

The staff has demonstrated great enthusiasm for this undertaking. We believe that this enthusiasm is essential for the vision of an overarching Policy Statement to be realized. This enthusiasm and objectives should be articulated in a short mission statement for the project. After preliminary evaluations have been made, we would like to review the staff's plans. We look forward to assisting the staff in this challenging initiative.

Sincerely,



Dana A. Powers
Chairman

References:

1. **Draft SECY paper dated April 2, 1999, from William D. Travers, Executive Director for Operations, NRC, for the Commissioners, Subject: Status of Efforts on Revising the Safety Goal Policy Statement.**
2. **Memorandum dated June 30, 1998, from John C. Hoyle, Secretary, NRC, to L. Joseph Callan, Executive Director for Operations, NRC, Subject: Staff Requirements - SECY-98-101 - Modifications to the Safety Goal Policy Statement.**
3. **Report dated May 11, 1998, from R. L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Elevation of CDF to a Fundamental Safety Goal and Possible Revision to the Commission's Safety Goal Policy Statement.**