



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

ACRSR-1375  
PDR

November 20, 1989

Mr. James M. Taylor  
Acting Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Taylor:

**SUBJECT: THE RELATIONSHIP OF THE QUANTITATIVE SAFETY GOAL TO THE  
CONCEPT OF ADEQUATE PROTECTION**

During the 355th meeting of the Advisory Committee on Reactor Safeguards, November 16-18, 1989, we discussed the concept of "adequate protection" and its role in the plans for implementation of the NRC Safety Goal Policy. We discussed this subject during several previous meetings of the Committee and our Subcommittee on Safety Philosophy, Technology, and Criteria. During this review, we had the benefit of discussions with members of the NRC staff and of the documents referenced.

In a series of reports to the Commission culminating in the report of February 16, 1989, the ACRS has commented on the staff's proposals for implementing the Commission's Safety Goal Policy. We also discussed this subject in a meeting between the ACRS and the Commission on May 3, 1989. Following this meeting and a meeting with the staff on July 26, 1989, the Commission asked for a clarification of the seemingly different positions held by the staff and by the ACRS concerning the role of the concept of adequate protection in the staff's plan for implementing the Safety Goal Policy (Staff Requirements Memorandum dated August 21, 1989). We provided an interim response in our report to Chairman Carr on October 11, 1989.

As an instrument for providing the requested clarification to the Commission, the staff prepared a draft paper entitled, "Adequate Protection As It Relates to Safety Goals: ACRS and Staff Positions," that was forwarded to us for review as an attachment to a memorandum from E. S. Beckjord, Office of Nuclear Regulatory Research, to R. F. Fraley, ACRS, dated November 2, 1989.

We take exception to the description of the ACRS positions, as described in the draft paper, as follows:

- (1) On page 2 of the draft paper, the staff provides a quotation from the Committee's February 16, 1989 report (under Definition of "Adequate Protection"), as follows:

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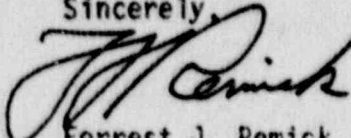
We believe that the safety goal should play an important, but indirect, role in defining adequate protection. Ideally, compliance with the Commission's regulations is a suitable surrogate for defining adequate protection of the public. However, we believe that the adequacy of the regulations should be judged from the viewpoint of whether nuclear power plants, as a class, licensed under those regulations, meet the safety goals. It is our understanding, following discussions with the staff, that the staff proposes the safety goal to be a sort of aspirational objective which would be sought but not necessarily reached.

To provide a better understanding of the ACRS position, the staff should also include the paragraph that precedes the above quotation, namely:

The term "adequate protection" has importance in the legal areas of safety regulation. Although it is needed and used with apparent precision in legal instruments, its technical definition is not precise. In general, it is accepted as equivalent to the term "with no undue risk to public health and safety" often used in other contexts. Another term, "in full compliance with the regulations" is used as a surrogate, on occasion, for either of these.

- (2) Following this quotation, the staff's draft paper describes the ACRS position as, in effect, equating the concepts of "safe enough" and "adequate protection." This is not correct. The ACRS believes that the safety goal sets a standard of what is "safe enough," for the population of plants or a class of plants. As we have consistently stated in our previous reports on this subject, the quantitative safety goal should be used only to judge the adequacy of the NRC's body of regulations and should not be used to judge the adequacy of the design and performance of a particular individual plant. We do not attempt to equate the safety goals to "adequate protection" in the sense in which the courts have recently considered it.

Sincerely,



Forrest J. Remick  
Chairman

References

1. Memorandum dated November 2, 1989 from Eric S. Beckjord, Office of Nuclear Regulatory Research, NRC, to Raymond F. Fraley, ACRS, transmitting Draft Commission Paper for the Commissioners, Subject: Adequate Protection As It Relates To Safety Goals: ACRS and Staff Positions (Predecisional)
2. Memorandum dated August 21, 1989 from S. J. Chilk, Secretary, to J. M. Taylor, Acting EDO, and R. F. Fraley, ACRS, Subject: Staff Requirements - Briefing on Integration of Policy Statements For Severe Accidents, Advanced Reactors, Safety Goals, and Standardization - July 26, 1989