



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 31, 1980

COMMISSION
CORRESPONDENCE

Ellyn R. Weiss, Esq.
Sheldon, Harmon & Weiss
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Washington, DC 20006

Dear Ms. Weiss:

This is in response to your letter of June 5, 1980 asking the Commission to begin expeditiously a rulemaking to establish a safety goal for licensing and regulating nuclear plants. As your letter noted, the NRC Authorization Bill for fiscal year 1981 reported by the Senate Committee on Environment and Public Works, S. 2353, calls for the Commission to develop a safety goal for reactor regulation following opportunity for a public hearing. This bill has not yet passed the Senate. H.R. 6628, the version of the FY 1981 Authorization Bill presently under consideration in the House, contains no corresponding provision.

The Commission shares your view that it would be highly desirable to articulate a clear safety goal by which both individual license applications and the general efficacy of the licensing and regulatory process can be measured. Included in the Commission's policy, planning and program guidance for the staff is the statement that "The NRC will seek to define more clearly the level of protection of the public health and safety that it believes is adequate based on statutes, public input, and NRC's subjective and quantitative evaluations." In Chapter V of the "NRC Action Plan Developed as a Result of the TMI-2 Accident," NUREG-0660, May 1980, the NRC has acknowledged a need to develop a general approach to risk acceptability and safety-cost tradeoffs.

The Office of Nuclear Regulatory Research (RES) has in progress a program to expand research on quantification of safety decision-making. The work is being done as part of another task of the TMI Action Plan (Task IV.E, Part 1). The specific activities involved and their status are as follows:

1. A Comparative Risk Assessment and Acceptable Risk Criteria project is being conducted by the Oak Ridge National Laboratory to develop methods for addressing unacceptable and acceptable risk, and to compare public and occupational risk associated with the coal and nuclear fuel cycles. A preliminary draft of a report on Approaches to Acceptable Risk is presently being reviewed, and a draft report on the risk associated with the coal and nuclear fuel cycles is being finalized for distribution in July.

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2. A research task force of a variety of professional disciplines has been established to formulate several possible sets of numerical criteria, using different technical approaches. The formation of the research task force and the conduct of its meetings are being coordinated through the Institute of Electrical and Electronic Engineering (IEEE), with cooperation from other professional engineering societies. The task force has been established in the IEEE SC-5 Reliability Committee, and has completed several working group meetings as of June 1980.
3. Brookhaven National Laboratory (BNL) has been contracted to independently formulate criteria in order to investigate the implications of such criteria and to determine the impact of attempting to satisfy such criteria. Information on risk exposure and risk acceptance criteria from other societal activities is being collected. Also, baseline calculations of WASH-1400 accident sequence probabilities are being revised by using hardware and human error failure rates. Criteria validation is scheduled for completion in the 3rd Quarter, FY 1982.
4. As a means of peer review during the BNL project, the National Science Foundation, the National Academy of Science, and the American Statistical Association have been contacted to set up peer review functions. Negotiations are underway to define the specific mechanisms for these peer reviews. RES agreed to provide limited financial support to the Forum which was conducted by the NAS in May 1980 on the subject "Nuclear Reactors: How Safe Are They?"
5. Several meetings are scheduled to accomplish an integration of these activities. A meeting of nuclear industry representatives was held in Washington, D. C., on March 18, 1980 to discuss fundamental issues involved in establishing risk criteria.

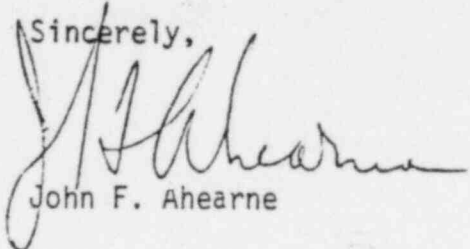
Also, in response to a letter of June 11, 1979 from me, the Advisory Committee on Reactor Safeguards established a Subcommittee on Reliability and Probabilistic Assessment to work on development of a safety goal concept. Later this year the ACRS is expected to summarize for the Commission its program and provide suggestions regarding possible specific safety goals.

On July 7, 1980, the Commission directed the Office of Policy Evaluation and the Office of the General Counsel to submit to the Commission, in August 1980, a proposed plan for developing a safety goal. The plan is to include provisions for using on-going efforts by the Office of Research, Office of Nuclear Reactor Regulation, and the ACRS, which will be completed in October 1980. A draft safety policy statement is to be submitted for Commission consideration and public comment by the end of this year. Accordingly, the Commission prefers to await results from these efforts before making a final decision on a safety-goal rulemaking.

You may wish to consider whether the specific questions drawn from UCS' November 1977 proposal for a statement of policy and cited in your letter may be more appropriately raised in the planned degraded core rulemaking.

See Task II.B, Section A of the Action Plan, NUREG-0660. The Commission expects that advance notice of this rulemaking will be issued in the next couple of months. I have asked the Secretary to keep you informed.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. F. Ahearne".

John F. Ahearne