



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

December 14, 1998

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Dr. Travers:

SUBJECT: PROPOSED COMMISSION PAPER CONCERNING OPTIONS FOR RISK-INFORMED REVISIONS TO 10 CFR PART 50 - "DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES"

During the 458th meeting of the Advisory Committee on Reactor Safeguards, December 3-5, 1998, we reviewed the proposed staff options for making risk-informed revisions to 10 CFR Part 50. Our Subcommittees on Reliability and Probabilistic Risk Assessment, Plant Operations, and Regulatory Policies and Practices have held four meetings since August 1998 to discuss NRC staff and industry activities associated with making Part 50 risk informed. During our reviews, we had the benefit of discussions with representatives of the NRC staff, the Nuclear Energy Institute, and other interested parties. We also had the benefit of the documents referenced.

We recognize the importance of revising Part 50 and of resolving the associated policy issues. Because of the staff's tight schedule for completing these tasks, we are holding frequent meetings and are making use of early draft documents. Since the staff's approach is still evolving, we offer our preliminary views on this matter without commenting on the details of the draft document.

In our recent meeting, the staff presented a number of options and policy issues for making risk-informed revisions to Part 50. The policy issues identified by the staff were:

- voluntary versus mandatory conformance with the revised Part 50,
- exemptions for pilot plants from current Part 50 requirements, and
- modification of the scope of the Maintenance Rule.

Our view is that there is really no choice but to make the revised Part 50 voluntary because a backfit analysis will be virtually impossible to do. Making the revised Part 50 voluntary, in a sense, connotes "proliferation" of regulations. As noted in our September 30, 1998 report, there will have to be two sets of regulations - the current rule and the revised rule. Although this should be recognized, it should not be made an issue.

Pilot plant studies should be helpful in identifying the range of plant changes that might result, along with the impacts on risk, resources, and on other regulatory metrics. Exemptions from the current Part 50 requirements for pilot plants will be an expeditious way to better understand the implications and consequences of the revised rule.

We are not yet prepared to express our view on modifying the scope of the Maintenance Rule until we gain a better understanding of the relationship to other regulations, especially the License Renewal Rule.

We support the staff's recommended option of a two-phase approach, which first addresses the definition and scope of "safety related" and then proceeds to a second phase of revising specific sections of Part 50. We believe that the redefinition of "safety related" is fundamental and necessary, and is a strategy that will produce the most positive effect in the short term.

Before the staff proceeds with the second phase, we recommend that the staff more completely define certain terms - particularly "safety" and "adequate protection." We also recommend that the staff better clarify the principles and policies for defense-in-depth in order to identify necessary and sufficient limits. The staff should determine which elements of Part 50 constitute defense-in-depth and which of these should be retained.

We believe that the lack of a clear articulation of the functional objectives of a risk-informed regulatory system is contributing to the difficulty in identifying and evaluating options for making the existing system risk informed. Satisfying the Quantitative Health Objectives, which can be measured by subsidiary goals such as the core damage frequency (CDF) or substitute goals such as the large early release frequency (LERF), is not the only concern of the Agency. Additional objectives, such as the preservation of defense-in-depth, safety margins, and operational safety are often cited by the staff.

Articulation of the regulatory objectives should be a restatement of the NRC's mission related to what it may consider to be the complete definition of safety, as contrasted to risk. For example, during its work on revising the inspection and assessment programs, the staff has identified a number of "cornerstones" that could be adopted as the objectives of the Agency. If all of the Agency's regulatory objectives were clearly stated, the requirements for making Part 50 risk informed could flow directly from these objectives.

Sincerely,



R. L. Seale
Chairman

References:

1. Draft Commission paper for the Commissioners, from William D. Travers, Executive Director for Operations, NRC, received December 1, 1998, Subject: Options for Risk-

Informed Revisions to 10 CFR Part 50 - Domestic Licensing of Production and Utilization Facilities (Predecisional).

- 2. Report dated September 30, 1998, from R.L. Seale, Chairman, ACRS, to Shirley Ann Jackson, Chairman, NRC, Subject: Impact of Probabilistic Risk Assessment Results and Insights on the Regulatory System.**

