



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

June 11, 1999

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

Dear Dr. Travers:

SUBJECT: PROPOSED OPTIONS FOR USING AVERTED ONSITE COSTS AND VOLUNTARY INITIATIVES IN REGULATORY ANALYSES

During the 463rd meeting of the Advisory Committee on Reactor Safeguards, June 2-4, 1999, we reviewed the staff's proposed options for using averted onsite costs (AOSCs) and voluntary initiatives in regulatory analyses. During our review, we had the benefit of discussions with representatives of the NRC staff and the Nuclear Energy Institute, and of the documents referenced.

Background

The current NRC policy is to include AOSCs in regulatory analyses. In addition, sensitivity analyses are performed and results computed without including these costs. The staff proposes that there be no change to this current policy.

The current policy on the treatment of voluntary initiatives in regulatory analyses is that, for the "baseline" case calculation, no credit is to be given for voluntary initiatives. The guidelines specify that, for the purpose of sensitivity analyses, the costs and benefits should also be displayed with "full credit" for voluntary initiatives and that this information can be factored into the decision concerning the proposed regulatory action. In practice, however, no credit is given for voluntary initiatives in the regulatory analyses. Thus, the intent of the policy seems not to have been met in the implementation. Consequently, the staff is contemplating three options to the current policy. Our understanding of these options is as follows:

- Option A: In addition to the "no credit" and "full credit" calculations, a "best estimate" calculation is performed based on specific guidance given to the analyst on the factors to be considered in assessing the extent to which the voluntary initiatives should be credited.
- Option B: A preliminary screening is performed to see if the results of the "no credit" and "full credit" calculations lead to different decisions. If not, there would be no need to proceed further. Otherwise, proceed as in Option A.

Option C: A "full credit" calculation is performed and the results of the "no credit" calculation are displayed for the purpose of sensitivity analyses. This option would, in essence, give greater weight and importance to voluntary initiatives.

The staff recommends Option B as its preferred choice.

Recommendation and Comments

1. We agree with the staff's position on the treatment of AOSCs and recommend that these costs continue to be included in regulatory analyses.
2. We support the staff's preferred Option B for the treatment of voluntary initiatives in regulatory analyses because it would provide a more realistic estimate of the costs and benefits of a regulatory action. We expect that there will be a transition from giving only "some credit" to giving "full credit" as the Agency moves more toward a risk-informed regulatory system.

Discussion

The staff's reasons for including AOSCs in regulatory analyses are valid. These are societal benefits and all societal costs and benefits should be included in regulatory analyses. The AOSCs constitute economic benefits that are frequently referred to as private or internalized benefits. The inclusion of these benefits in cost-benefit analyses is standard practice recommended to all Federal agencies by the Office of Management and Budget.

The industry has been critical of the inclusion of AOSCs in the NRC regulatory analyses for a number of reasons. The industry has argued that AOSCs:

- constitute benefits that accrue solely to the licensee and should not be considered to be societal benefits of the regulations;
- are not a public health and safety issue and, therefore, their inclusion in regulatory analyses inappropriately involves the NRC in licensee internal management affairs; and
- are covered by insurance and their inclusion constitutes double counting.

We have discussed the staff's responses to these industry concerns and agree with the staff's positions.

Our review of AOSCs was not initiated because of any concern about whether AOSCs should be included in regulatory analyses. We have consistently supported the inclusion of AOSCs in regulatory analyses. We had a concern that AOSCs would be improperly co-mingled with present costs that are certain (probability = 1). Future costs are worth less than present costs of implementation and low probability costs may never be manifested. Our concerns in this respect have been allayed by a review of NUREG/BR-0184, "Regulatory Analysis Technical Evaluation Handbook." The processes outlined in this handbook appropriately include the probabilistic nature of future costs, as well as appropriate methods for discounting to present

values. Consequently, we agree with the staff's proposal to continue the current policy on AOSCs.

The inclusion of voluntary initiatives in regulatory analyses is more problematic. Voluntary initiatives are discretionary, cannot be enforced by NRC, and could be eliminated by licensee action even without NRC knowledge. The question of how much credit to give for voluntary initiatives is broader than just the regulatory analysis application. This question arises whenever risk assessments are included in regulatory decisions.

For regulatory analyses, the staff's preferred Option B provides a means of giving graded credit to voluntary initiatives depending on the degree to which there is assurance that the requirements on continuation, scope, and effectiveness are satisfied by the characteristics of the initiative. We support Option B because it provides a realistic evaluation of the costs and benefits of regulatory actions.

Giving full credit for all risk-related issues will become more appropriate as the Agency moves closer to a fully risk-informed regulatory system. We anticipate that the regulatory attitude toward voluntary initiatives will change as the Agency moves away from the current deterministic system and more toward a risk-informed system.

In our previous reports we have noted that, in a risk-informed system, it will be necessary to have risk-acceptance criteria that are applied on a plant-specific basis. Such a regulatory system would focus on the actual risk status of individual plants. Therefore, in this kind of system, the concerns expressed by the staff about the likelihood of discontinuing voluntary actions and the plant-to-plant differences in scope and effectiveness disappear. If a voluntary initiative is discontinued, the risk status of the plant may increase. As long as the plant meets the risk-acceptance criteria, this increase should be acceptable. Similarly, since the focus would be on individual plants, the scope and effectiveness of any voluntary initiatives would be reflected in the plant-specific risk assessment. Thus, in this kind of risk-informed regulatory system, full credit should always be given for voluntary initiatives.

Sincerely,



Dana A. Powers
Chairman

References:

1. Memorandum dated May 21, 1999, from Jack E. Rosenthal, Office of Nuclear Regulatory Research, to John T. Larkins, Executive Director, ACRS, Subject: Information Paper Concerning Treatment of Averted Onsite Costs in Regulatory Analyses.
2. Draft Commission Paper received May 21, 1999, from William D. Travers, Executive Director for Operations, NRC, for the Commissioners, Subject: Treatment of Voluntary Initiatives In Regulatory Analyses.

3. U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, NUREG/BR-0184, "Regulatory Analysis Technical Evaluation Handbook," Final Report, issued January 1997.
4. Memorandum dated May 27, 1999, from Annette Vietti-Cook, Secretary of the Commission, to William D. Travers, Executive Director for Operations, NRC, Subject: Staff Requirements SECY-99-063 - The Use by Industry of Voluntary Initiatives in the Regulatory Process.
5. 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.
6. 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 of the Commission's Safety Goal Policy Statement.