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Mr. Victor Stello, Jr.
Acting Executive Director for Operations
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Stello:

SUBJECT: ACRS COMMENTS ON THE IMPLEMENTATION PLAN FOR THE SEVERE ACCIDENT POLICY STATEMENT AND REGULATORY USE OF NEW SOURCE-TERM INFORMATION

During its 311th meeting, March 13-15, 1986, the ACRS discussed with the NRC Staff a draft of the Implementation Plan which is being prepared in accordance with the Commission's Severe Accident Policy Statement. This proposal was also discussed with the Class 9 Accidents Subcommittee on February 24, 1986.

The NRC Staff proposes to separate implementation into three somewhat independent areas: (1) systematic evaluation, on an individual basis, of plants now in operation or under construction; (2) analysis of proposed new plants using a combination of deterministic and probabilistic criteria; and (3) changes in regulations based on new source term information. A major part of the discussion was based on the first area which is more developed than the other two.

Systematic Evaluation of Individual Plants

A procedure for systematic evaluation of operating plants is being developed in cooperation with those responsible for the IDCOR program. It is to be based on insights gained from risk analysis but will be composed of a set of deterministic guidelines and criteria to be used by the staff of each operating plant. The general approach has been agreed upon by the NRC Staff and members of the IDCOR organization. However, a significant number of issues on which resolution is yet to be reached remain. It is proposed that the systematic evaluation treat so-called internal accident initiators, as well as internal flooding and internal fires. However, the approach to be used for dealing with seismic events and some other external accident initiators is yet to be developed.

We believe the proposed approach for individual plant analysis is reasonable. We expect to follow the progress of issue resolution and the results of a trial application of the method to several plants. Although we expect that the problem of dealing with seismic initiators will be difficult, we believe it is important that the issue be resolved. We urge that the difficulty not lead to postponement of the effort.

We note that one of the principal purposes of the individual analysis is to identify outliers that may be characteristic of individual plants. We recommend that continuing attention be given to this purpose. We are not convinced that it will be achieved automatically by the proposed procedure. If it is to be achieved, those carrying out the analysis will, at the very least, need to be enthusiastic about the value of the

process and its results. The NRC Staff should make an effort to formulate a procedure that is perceived by those who will use it as having the possibility of enhancing plant safety with reasonable effort. It is especially important that diligence in carrying out the search for vulnerabilities not lead to undue penalties.

We also recommend that the program for correcting any plant deficiencies discovered in this analysis or in the course of resolving Unresolved Safety Issues be integrated in such a way that the proposed changes in plant equipment, in procedures, or in staffing are dealt with on a plantwide basis in order that they not conflict one with the other.

Analysis of Proposed New Plants

Insights gained from NUREG-1150, "Nuclear Power Plant Risks and Regulatory Applications," and from other sources of information, will be used to develop some combination of deterministic requirements and probabilistically based criteria for judging plant response to severe accidents. The NRC Staff is developing requirements for the acceptable content of PRAs required for the licensing of new plants and criteria for the interpretation of and the regulatory application of the PRA results. We have previously suggested that development of some combination of deterministic and probabilistic criteria might be desirable. We reserve further comment until the detailed approach has been developed.

We recognize the current program to explore development of containment criteria. We note in NRC Staff comments on this program that a decision is to be made as to whether containment criteria are needed. Unless a decision is made to eliminate containment, there is no question of whether criteria should exist but only of what they are to be. The present criteria were developed from a consideration of Design Basis Accidents. Because of the importance of containment performance in severe accidents, we are convinced that containment criteria should consider severe accidents as well.

Source Term Related Changes in Regulations

In our meeting, several regulatory areas were described which are to be examined in the light of new source term information. We have repeatedly recommended that such an examination be made in order to guide the severe accident research program. We have no quarrel with the areas chosen. We will comment further after the analyses have been completed.

As a general comment, we observe that the first two areas of implementation activity seem to be schedule-driven to an extent that makes it possible that the decisions reached will suffer from incomplete study and development. We urge that adequate time be given to the treatment of these important issues.

Sincerely,

David A. Ward
Chairman

References

1. U. S. Nuclear Regulatory Commission, "NRC Policy on Future Reactor Designs - Decisions on Severe Accident Issues in Nuclear Power Plant Regulation," USNRC Report NUREG-1070, dated July 1985
2. SECY-86-76 (Draft), "Implementation Plan for the Severe Accident Policy Statement and the Regulatory Use of New Source-Term Information," memo for the Commissioners from V. Stello, Acting Executive Director of Operations, dated February 28, 1986

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