

SUMMARY AND ANALYSIS OF SEISMIC PUBLIC COMMENTS

For the purpose of this paper, the comments are divided into domestic and international comment sources; the international comment sources can be subdivided into those from regulatory agencies and those from foreign utilities. While the staff is giving priority to the domestic comments, the foreign comments and concerns are being fully addressed, principally in the "Comment Resolution Memorandum" that will be part of the final rulemaking package.

Among the domestic commenters, the single greatest concern expressed was that about the potential difficulties with the reconciliation of the differences between the probabilistic and deterministic evaluations required by the parallel approach in the draft rulemaking package published for comment. Except for the few commenters who would not accept any form of probabilistic evaluation, the proposed hybrid approach, briefly described in the body of the Commission Paper in response to Issue 6, should accommodate the majority of domestic comments. The detailed "Comment Resolution Memorandum" will address how each of the specific comments was accommodated and will explain why the "deterministic only" approach was not accommodated.

The comments from the foreign utilities (particularly those from the Pacific rim countries, which have tectonic regimes significantly different from the eastern U. S.) principally concerned the maturity of probabilistic seismic hazard assessments (PSHA), vis. a vis, its use in a regulation, and the difficulties anticipated in applying the criteria in their individual country; they also noted the NRC staff's inability to reach consensus on the appropriate balance between deterministic and probabilistic evaluations. The hybrid approach should resolve the balance issue and its philosophical compatibility to the NUMARC and U. S. Geological Survey positions should address the maturity issue, at least, for the United States. The remaining element of concern, the adaptability of the U.S. probabilistic method to individual countries is a matter of recognition that the proposed method in the draft regulatory guide is specific to the U.S. situation and particularly the eastern U.S. where there is a history of the use of probabilistic concepts in resolving regulatory issues and for which two large seismic hazard programs exist with substantial data bases. It is imperative that the nature and emphasis on the probabilistic method must be consistent with the tectonic regime and available data base of the individual country. The DG-1015 clearly recognizes this situation for the western U. S. To alleviate the worries of the foreign commenters, the commentary for revised DG-1015 will emphasize that the purpose of the probabilistic method is to account for uncertainty, and the nature of uncertainty and how to account for it depends to a great extent on the tectonic regime and parameters, such as, the existence of known seismic sources, the existence of strong ground motion records, and the knowledge of geology. Both the probabilistic method and deterministic investigations should be and must be adapted to the particular situation. With the inclusion of such clarification in the commentary, the foreign commenters should not feel compelled to adopt DG-1015's specific probabilistic procedures but still can, in principle, accommodate the philosophy of the hybrid approach.

In addition to comments similar to those from the foreign utilities, the comments from the foreign regulatory agencies, principally from individual staff members rather than from the management of the agency, were generally on specific technical points of the revision published for comment. These specific comments would be addressed on their individual merit as the details of the hybrid approach and the "Comment Resolution Memorandum" are prepared.

Thus, the principal elements of a U.S. consensus on the acceptance of the hybrid approach are in hand, and the principal concerns of the foreign utility commenters are broadly addressed here and will be fully addressed in the "Comment Resolution Memorandum".