

## *PREFACE*

The extensive efforts to review the dosimetry of the atomic-bomb survivors and formulate the new dosimetry system DS02 have been greatly welcomed by the Radiation Effects Research Foundation. This accomplishment is a fine tribute to the importance of the epidemiological studies being conducted at RERF. No other study is so informative of the effects of radiation on human health. The gracious participation in the RERF program by the atomic-bomb survivors allows us to contribute to the well being of these individuals, and the high quality of the data obtained allows the RERF results to feature so prominently in the formulation of international guidelines for radiation protection. Such a great effort to improve and substantiate the dosimetry would not otherwise have been justified.

RERF greatly appreciates the independent work of the U.S. and Japanese Working Groups on the atomic-bomb dosimetry and the review by the Joint Senior Review Group of this overall effort. We are assured that unbiased development of the new dosimetry system will reflect well in its application in the RERF epidemiology study. The documentation included in this report will serve as reference for the many deliberations concluded.

The resolution of the previously recognized neutron discrepancy problem was achieved by the more sensitive measurements that became possible in recent years. The international collaboration and intercomparisons contributed greatly to the understanding and interpretation of the results. At the same time, the parameters of the calculations were thoroughly reviewed and the computing power greatly enhanced. The confidence in the new system is very high. Although it cannot be excluded that new knowledge will allow even smaller differences in measurements and calculations to be reduced, we can be quite confident that the new dosimetry system is entirely satisfactory and is as accurate as can be made with present resources.

RERF wishes to thank all those who participated in the dosimetry reevaluation and the government representatives who supported this effort. Special recognition goes to Dr. Robert W. Young and to Dr. Hiromi Hasai for their leadership of this work and to Dr. Young and Dr. George D. Kerr, who served as editors of this report.

At all times, we are mindful of the goodwill of the atomic-bomb survivors, who allow the RERF studies to continue. The atomic bombings have indelibly marked the lives of many individuals. The legacy of these events leaves us with a responsibility to learn from history and to contribute to a future that is of brighter promise for all mankind.

Burton G. Bennett, Chairman  
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