

# Preface

The *Environmental Report 2005* is prepared for the U.S. Department of Energy (DOE) by the Environmental Protection Department at Lawrence Livermore National Laboratory (LLNL). The submittal of the *Environmental Report 2005* satisfies requirements under DOE Order 231.1A, *Environmental Safety and Health Reporting* and DOE Order 5400.5, *Radiation Protection of the Public and Environment*. The purpose of the *Environmental Report 2005* is to present summary environmental data, confirm compliance with environmental standards and requirements, and highlight facility programs and efforts.

The *Environmental Report 2005* will be distributed in electronic form on compact disc (CD), and will also be accessible on the Internet at the LLNL Site Annual Environmental Report homepage: <http://www.llnl.gov/saer/>. Both the report and data tables can be viewed in their most up-to-date form on the website. Environmental reports covering calendar years 1994 through 2004, and corrections to them, are also found at <http://www.llnl.gov/saer/>.

The report contains an executive summary, an introduction with an overview of the meteorology and hydrogeology of the two LLNL sites (**Chapter 1**), a summary of LLNL's compliance with environmental regulations (**Chapter 2**), and a description of LLNL's environmental programs, with emphasis on the Environmental Management System including pollution prevention (**Chapter 3**). The majority of the report features LLNL's environmental monitoring programs: effluent and ambient air (**Chapter 4**); waters, including wastewater, storm water runoff, surface water, rain, and groundwater (**Chapter 5**); and terrestrial, including soil and sediment, vegetation and foodstuff, ambient radiation, and special status wildlife and plants (**Chapter 6**). All environmental monitoring data summarized in this report are provided in files on the CD. The radiological impact on the public is discussed in **Chapter 7**, and **Chapter 8** provides an overview of LLNL's groundwater remediation program. Information on both the Livermore site and Site 300 is included in each chapter. The report concludes with a discussion of quality assurance activities associated with these monitoring programs (**Chapter 9**).

The *Environmental Report 2005* continues the practice of using Système International units. This is consistent with federal law stated in the Metric Conversion Action of 1975 and Presidential Order 12770, Metric Usage in Federal Government Programs (July 25, 1991). For ease of comparison to environmental reports issued prior to 1991, dose values and many radiological measurements are presented in both metric and U.S. customary units.

A conversion table for all units used in this report (**Table GL-1**) is also provided in the Glossary under the heading of “metric units.”

The document is the responsibility of LLNL’s Operations and Regulatory Affairs Division of the Environmental Protection Department. Monitoring data were obtained through the combined efforts of the Operations and Regulatory Affairs Division, Environmental Restoration Division, Chemistry and Materials Science Environmental Services’ Environmental Monitoring Radiation Laboratory, and the Hazards Control Department. Special recognition is deserved for the dedication and professionalism of the technologists who gathered the data—Gary A. Bear, Karl Brunckhorst, David J. Castro, Crystal Foster, Steven Hall, Renee Needens, Terrance W. Poole, Donald G. Ramsey, and Robert Williams—of the data management personnel—Hildy Kiefer, Kimberley A. Swanson, Beth Schad, Suzanne Chamberlain, Della Burruss, and Susan Lambaren—and of the secretarial staff who prepared and distributed the drafts—Annette Freschi and Loni Hoellwarth. Special thanks go to Gretchen Gallegos and Richard Blake for their strong support of the project and reviews of the drafts.