

Preface

The *Environmental Report 2004* 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 2004 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 2004* is to present summary environmental data, confirm compliance with environmental standards and requirements, and highlight facility programs and efforts.

The *Environmental Report 2004* 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 2003, 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](#)), and a summary of LLNL's compliance with environmental regulations and environmental programs, with emphasis on pollution prevention ([Chapter 2](#)). The majority of the report features LLNL's environmental monitoring programs: effluent and ambient air ([Chapter 3](#)); waters, including wastewater, storm water runoff, surface water, rain, and groundwater ([Chapter 4](#)); and terrestrial, including soil and sediment, vegetation and foodstuff, ambient radiation, and special status wildlife and plants ([Chapter 5](#)). 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 6](#), and [Chapter 7](#) 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 8](#)).

The *Environmental Report 2004* 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 is also provided in the Glossary under the heading of "metric units."

The document is the responsibility of LLNL's Operation and Regulatory Affairs Division of the Environmental Protection Department. Monitoring data were obtained through the combined efforts of the Operation 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 technicians

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