

Introduction *(continued)*

Low-Nitrogen Oxide Boilers at the Laboratory

- ❖ During the past eight years, the Laboratory has voluntarily installed more boilers with a low-nitrogen oxide design than boilers without this air pollution control option. Low-nitrogen oxide boilers reduce nitrogen oxide emissions by approximately 50%.

Hazardous Air-Pollutant Emissions From the Laboratory

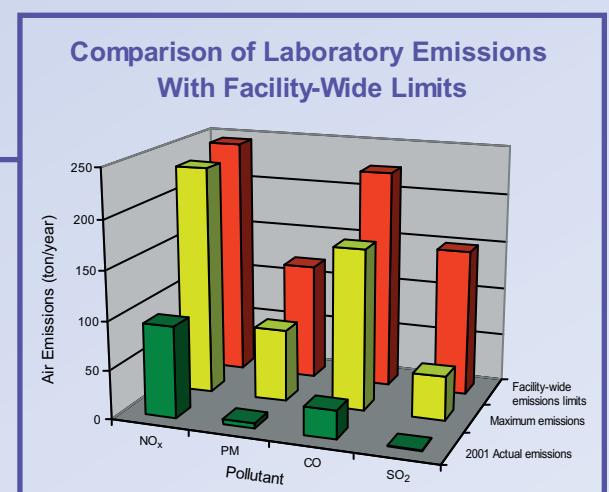
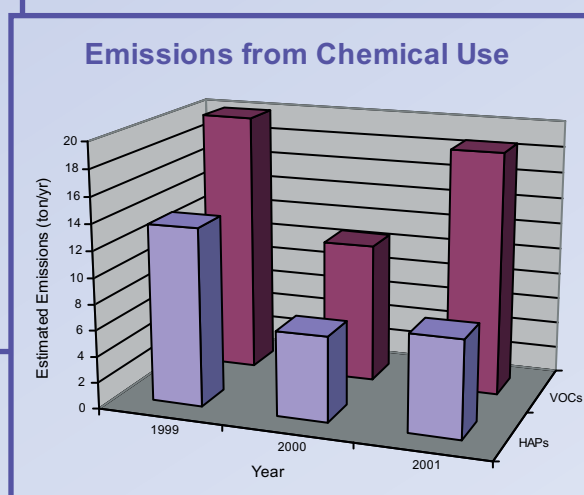
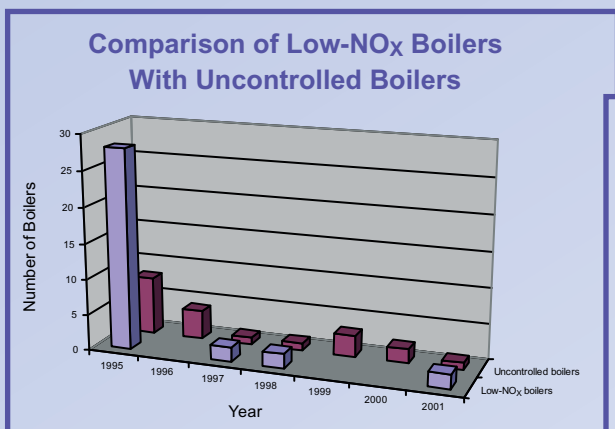
- ❖ In 2001, actual emissions of hazardous air pollutants from chemical use at the Laboratory were conservatively estimated to be 7.4 tons per year. The highest emission from any single hazardous air pollutant was hydrochloric acid with estimated emissions of 1.74 tons per year. No other hazardous air pollutant was emitted in a quantity exceeding 1 ton per year.

Laboratory Emissions and Facility-Wide Limits

- ❖ Past actual air pollutant emissions at the Laboratory have been significantly below the facility-wide emission limits requested in the Title V permit application. The requested limits are intended to provide for potential future growth of operations.
- ❖ As proposed in the Title V permit application, maximum air pollutant emissions that can occur with the proposed fuel-use and operational restrictions in place are below the requested facility-wide emissions limits.

U.S. Environmental Protection Agency Emissions Estimates for New Mexico Facilities

- ❖ For a perspective on air emissions in New Mexico, the U.S. Environmental Protection Agency's National Emission Trends (NET) database contains summary information about emissions from all significant sources within the state. Examples from this database are provided separately, in a handout.



The Title V Operating Permit Program and the Laboratory

- ❖ Title V of the federal Clean Air Act Amendments of 1990 required all states to have an operating permit program that meets criteria established by the U.S. Environmental Protection Agency at 40 CFR Part 70.
- ❖ The intent of the operating permit program is to enhance compliance by including in a single permit all applicable existing air quality requirements, including monitoring, recordkeeping, and reporting.
- ❖ The New Mexico Environment Department Title V regulation set forth a schedule for existing facilities to submit their initial Title permit application. The Laboratory submitted the initial operating permit application as required in December 1995. The New Mexico Environment Department subsequently ruled the application complete.
- ❖ The 1995 Laboratory application was not processed. As agreed with New Mexico Environment Department, an updated application was submitted in November 2002 to replace the 1995 application. New Mexico Environment Department ruled the application complete in December 2002.
- ❖ In New Mexico, Title V was implemented as a second permit program in addition to the existing construction permit program. Under this dual-permit program, a new air source or modification is required to first obtain an air quality construction permit, followed by an operating permit.
- ❖ Only facilities defined as major emissions sources are required to obtain a Title V permit. A major source is a facility that has the potential to emit 100 tons or more of any air pollutant or, for hazardous air pollutants, 10 tons or more of any specific hazardous air pollutant or 25 tons or more of all hazardous air pollutants combined.
- ❖ Unlike most other Title V sources that manufacture a product for distribution in commerce, the Laboratory is a scientific institution dedicated to research and development. Few research operations have applicable requirements. Instead, it is industrial sources supporting research operations, such as boilers used for heating and power at the Laboratory, that emit pollutants in quantities that trigger the requirement for a Title V operating permit.

A complete copy of the Laboratory's Title V operating permit application and additional information about air quality are available at the Meteorology and Air Quality web site at

<http://www.lanl.gov/orgs/rres/maq/index.htm>