



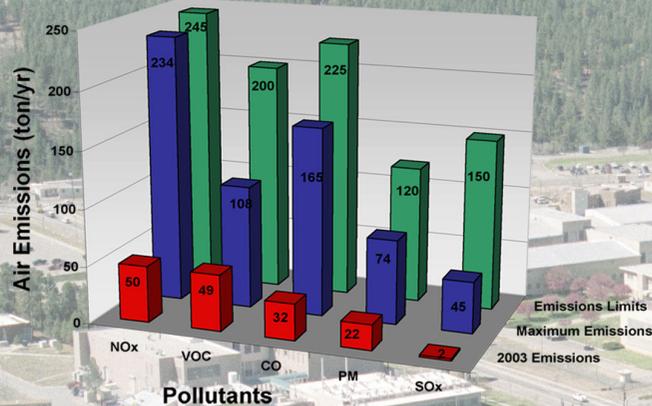
Interactive Efforts in Title V Operating Permit Application Process for Los Alamos National Laboratory



New Air Permit for Los Alamos National Laboratory

Air pollutant emissions from Los Alamos National Laboratory (LANL) come primarily from industrial sources such as boilers used to provide heat and power. Regulated air pollutant emissions include nitrogen oxides, carbon monoxide, sulfur dioxide, particulate matter less than 10 microns in size, volatile organic compounds, and lead.

Los Alamos National Laboratory
Comparison of Emissions with Limits



Title V Operating Permit

Title V of the federal Clean Air Act Amendments of 1990 requires a Title V operating permit for any facility with the potential to emit 100 tons or more of any pollutant for which the U.S. Environmental Protection Agency (EPA) has established a national ambient air quality standard. Los Alamos National Laboratory falls within that category and has submitted a Title V permit application that the New Mexico Environment Department (NMED) is reviewing.

For each permitted emission source, the application contains a process description; emission estimates; applicable air quality requirements; and proposed means of monitoring, recordkeeping, and reporting. The application also requests new facility-wide emission limits for pollutant emissions in order to avoid more-stringent requirements.

While preparing its application, LANL consulted with both NMED and the EPA, provided NMED with tours of the regulated sources, held a public open house, and made presentations to community and special-interest groups. As a result, LANL's application fulfills all applicable requirements, provides operational flexibility for programmatic research, and addresses as many community concerns as possible.

Audiences for LANL presentations included the following:

- Northern New Mexico Citizens' Advisory Board
- Environmental Monitoring and Surveillance Committee
- Los Alamos County Solid Waste Management Unit
- Environmental staffs of the Cochiti, Jemez, Santa Clara, and San Ildefonso pueblos
- Bandelier Park Service
- Community Radiation Monitoring Group
- Local Sierra Club

In February 2003 LANL's Meteorology and Air Quality group (RRES-MAQ) participated in an NMED-sponsored open house about the Title V permit application. Held in Los Alamos at Fuller Lodge, the open house was advertised in four different newspapers. Announcements and invitations were also sent by email and postal service.



AIR EMISSIONS

Air Emissions at Los Alamos National Laboratory

Air Emission Sources and Estimates

LANL's Title V operating permit application covers the following air emission sources:

- Air curtain destructors
- Asphalt production
- Beryllium machining
- Boilers and heaters
- Carpenter shops
- Chemical use
- Degreasers
- Generators
- Open burns
- Paper shredder
- Power plant
- Remediation activities
- Rock crusher



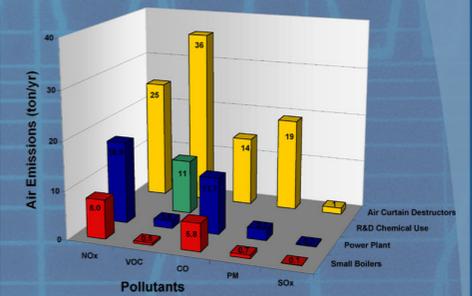
Nitrogen Oxide Emissions

Nitrogen oxide, produced by fuel combustion, is consistently the leading pollutant emitted by LANL operations—an estimated 50 tons in 2003. Volatile organic compounds were second in 2003 at 49 tons.

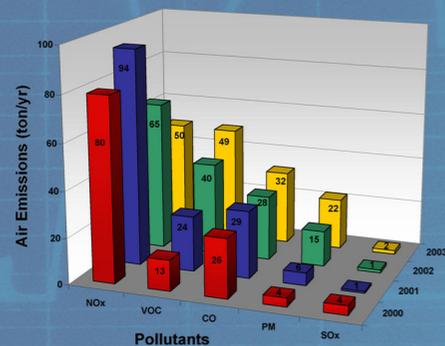
Historically, the main source of nitrogen oxide has been the combustion of natural gas at the Technical Area 3 (TA-3) power plant. LANL voluntarily installed a flue gas recirculation system on the plant's three large boilers, and that system, which became operational in October 2002, reduced nitrogen oxide emissions at the power plant by about 70%.

In 2003 the main source of nitrogen oxide emissions was the air curtain destructors that were used from 2001 through 2003 to burn wood and wood slash harvested during fire-mitigation efforts. Operation ceased in September 2003.

Los Alamos National Laboratory
Greatest Sources of Air
Emissions in 2003



Los Alamos National Laboratory
Annual Air Emissions

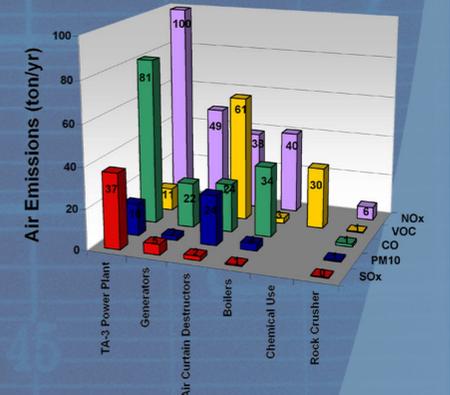


LANL annually prepares and submits to NMED an assessment of the emissions from these sources—the emissions inventory. This inventory describes the actual emissions, which are calculated from a unit's hours of operation, production rate, or fuel consumption over one year. As reported to NMED, past actual emissions have been below the Title V threshold of 100 tons per year. In that regard, LANL air emissions are significantly less than emissions from other Title V facilities.

Requested Facility-Wide Emission Limits

LANL's past actual air pollutant emissions have been significantly below the facility-wide emission limits requested in the Title V permit application. Those requested limits will provide for potential future growth of operations and keep the Laboratory below the major Prevention of Significant Deterioration thresholds. The maximum air pollutant emissions that can occur with the proposed fuel-use and operational restrictions in place will be below the requested limits.

Los Alamos National Laboratory
Maximum Emissions by Source



AIR EMISSIONS