

Degreasers

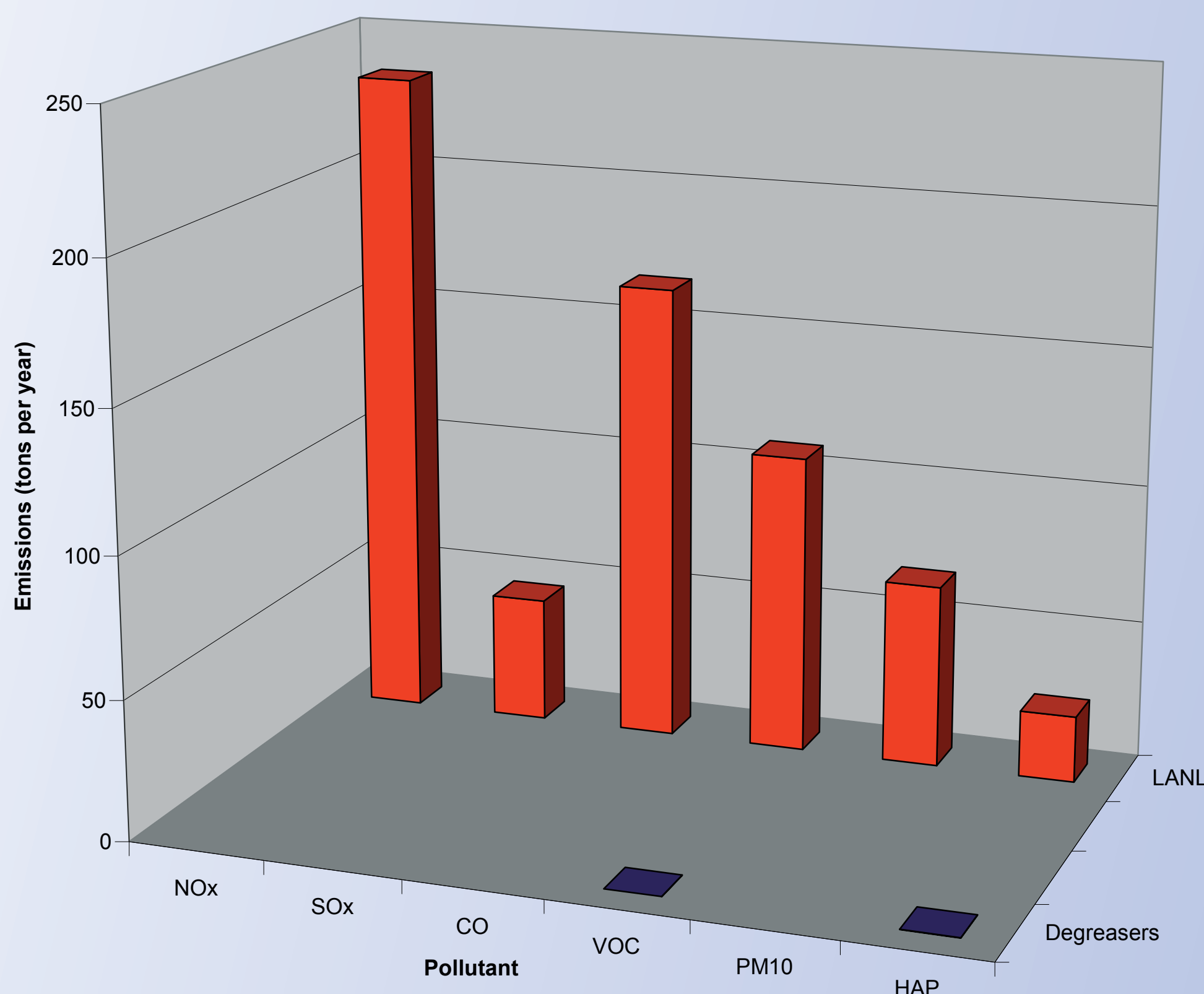
General Description

- ❖ There are three solvent-cleaning machines, or degreasers, at the Laboratory that are subject to Title V permitting. The degreasers are used for parts cleaning. Two of the degreasers are ultra-sonic, cold-batch degreasers with a capacity of 18 liters. The third unit was designed at the Laboratory and is a spray cold-batch degreaser with a capacity of 6 liters. The degreasers typically use trichloroethylene as the cleaning solvent.
- ❖ Parts in an ultra-sonic degreaser are cleaned by agitation created with sound waves of alternating frequency. The alternating sound waves generate high- and low-pressure waves that cause tiny bubbles to form and collapse. The agitation from the formation and collapse of the bubbles is effective in removing residue and leaves the surface clean and undamaged.
- ❖ The spray degreaser was designed to minimize the amount of solvent used. Mechanical spraying is performed in a closed-loop system. A fine solvent spray is delivered to the parts in need of cleaning. The over spray is collected in a reservoir, filtered, and pumped back to the spray nozzle.
- ❖ Additional degreasers used at the Laboratory qualify as insignificant or trivial activities under NMED guidance.



Degreaser

Comparison of Degreasers and LANL Emissions



Applicable Requirements

- ❖ The degreasers are subject to the EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) for halogenated solvent degreasers at 40 CFR Part 63, Subpart T. The applicable Subpart T requirements limit emissions through application of work practice standards.
- ❖ Operational requirements: The degreasers must be kept closed with tight-fitting covers. All waste solvent and wipe rags must be kept in closed containers. Cleaned parts must be allowed to drip for 15 seconds or until dripping stops. Splashing with the agitation device must be prevented. The solvent fill line must not be exceeded.

Proposed Monitoring, Recordkeeping, and Reporting

- ❖ Monitoring/Recordkeeping: Maintain records of solvent content and checklists for work practice standards.
- ❖ Reporting: Submit a semi-annual emissions report and monitoring report to the NMED.

Process Flow Diagram for Degreasers

