TOXIC GAS ORDINANCE: LABORATORY AND RESEARCH FACILITY STANDARD FOR LIMITED-USE COMPLIANCE

For Use by Unidocs Member Agencies or where approved by your Local Jurisdiction
Authority Cited: Toxic Gas Ordinance (TGO)

This standard is applicable to laboratories and research facilities regulated by all jurisdictions within the boundaries of the County of Santa Clara. This includes facilities in both incorporated and unincorporated areas. The standard does not apply to exempt amounts.

A. Definitions

"Limited-use laboratory and research" facilities are defined as:

1. Limited to distinct laboratory and/or research experiments (i.e. experiments which are not part of a production process, nor in any way simulate a production process);
2. Cylinder size/quantity limits per control area do not exceed:
   - Class I Gases: 20 st. cu. ft.
   - Class II or III gases: 340 st. cu. ft. or 15 lbs.
3. Toxic gas cylinders and associated piping are "used" in approved exhausted enclosures;
4. Use is limited to thirty (30) consecutive days per experiment;
5. Each experiment is constantly attended during gas usage.

B. Assumptions

1. The facility provides minimum three (3) working days notice to the local agency prior to each experiment for agency review. (Note: Notification shall be made through submittal of a completed "Notification of Limited-Use Laboratory/Research Facility Experiment" form or other method approved by the local agency);
2. The local agency may require safeguards in addition to those shown below, in section C, as a result of the process review;
3. Toxic gas cylinder "storage" meets all Toxic Gas Ordinance (and corresponding CFC) requirements. Cylinders are "stored" when not in "use";
4. This standard does not apply to quantities of toxic gas defined as "exempt" in the TGO (and corresponding CFC);
5. The local agency is authorized to modify any of the provisions of this standard upon application in writing by the owner, a lessee, or a duly authorized representative where there are practical difficulties in the way of carrying out the provisions of this standard, provided that the spirit of the standard shall be complied with, public safety secured, and substantial justice done.

C. Minimum Requirements

TGO minimum requirements for facilities covered by this standard are as follows:

1. Class I, II, and III Toxic Gases:

a. Each cylinder (except lecture bottles) shall be equipped with a flow restricting orifice (RFO) or flow limiting device;

b. Buildings in which toxic gases are used shall be equipped with sprinkler systems meeting current CFC requirements;

c. Approved exhausted enclosures shall be seismically braced. Individual cylinders shall be braced to the exhausted enclosure;
d. Each control area shall be "secured";
e. There shall be a minimum of two (2) SCBAs available where Class I or corrosive toxic gases are present;
f. All cylinders shall be tested for leaks during delivery and departure;
g. An on-site emergency response team shall be designated;
h. Quarterly emergency response drills shall be conducted (if ongoing experiments are conducted);
i. Primary piping shall be pressure-checked prior to use;
j. Each exhausted enclosure shall be provided with a treatment system capable of reducing the discharge concentration to one half (1/2) IDLH at the stack;
k. "No Smoking" signs shall be posted inside the storage and use areas.

1. Additional Requirements for Class I and II Toxic Gases:

a. Continuous gas detection shall be provided for Class I toxic gases;
b. An approved certified industrial hygienist (CIH) shall determine if gas detection is needed for Class II and III toxic gases based on health risks and existing controls;
c. If gas detection is provided, it shall be equipped with an alarm set at the gas' PEL level. The alarm shall be audible from outside the room of use;
d. Signs shall be posted outside the room(s) of use indicating the toxic gas(es) in use and what to do if an alarm is heard;
e. Exhaust flow meters shall be provided. Meters shall be equipped with an alarm set at the minimum exhaust flow required to maintain the required 1/2 IDLH at the stack (if ventilation is the treatment system). The alarm shall be audible from outside the room of use;
f. Emergency power shall be provided for gas detection and associated alarms;
g. Emergency power shall be provided for exhaust ventilation and associated alarms.