Where & How Depends Upon

1. Type & characteristics of gas:
   • Pyrophoric
   • Flammable
   • Toxic
   • Corrosive
   • Inert

2. Size of cylinder / volume of gas.
3. Location of use.

Consideration needs to be given to containment and ventilation, compatibility, and protecting cylinders from damage.
Storage requirements for toxic and flammable gases vary depending upon the quantity found in the particular control area of the building.

Note: typically the entire floor of a building accounts for a control area, however there are three control areas on the third floor of the Clyde building.

Contact the college Health & Safety Officer (422-6589) if you have questions.
Always store gases according to compatibility. Review the SDS to determine compatibility.
Separation Methods

Incompatible gases can be separated by:

1. Storing at least 20 feet apart; or
2. Using a properly designed physical barrier that has a fire rating of at least 30 minutes

At minimum, a five foot firewall with a fire rating of 1/2 hour
If the cylinder will accommodate a valve protection cap then keep the cap in place when the cylinder is not in use.

Storage Locations

Storage locations need to be:
- Dry
- Fire resistant
- Properly ventilated
- Located away from sources of ignition
- Maintained between 41°F and 125°F
Chains are preferred because if straps are used they can be done up wrong and the cylinders could fall over even though the straps appear to be in place.

Secure cylinders at all times in an upright position to a *stationary object when not being transported. Cylinders must be restrained at two points, near 2/3 and 1/3 the cylinder height.

*Welding gases can be secured on a welding cart while in use.
Gas cylinders containing compressed toxic gas must be stored and used in a ventilated gas cabinet, or gas cylinder storage room.

Exception - Small lecture bottles containing toxic gas can be used in a lab hood instead of a gas cabinet.
LPG Storage

Do Not Store LPG Cylinders Indoors

Liquid petroleum gas (LPG) cylinders can release flammable gas through their pressure relief valve as their content is warmed.
Other Considerations

Gas Cylinder Storage

1. Restrain the upper and lower portion of gas cylinders with chains [(or equivalent) avoid straps]
2. Keep away from ignition sources and exposed energized parts
3. Locate cylinders where they won’t be damaged by foot traffic or objects that could impact them
4. Distinguish “Empty” cylinders from full cylinders
Please share this presentation with your co-workers.

- End -