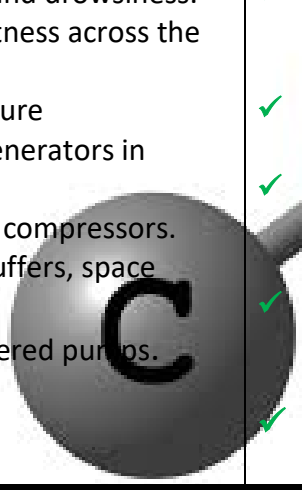
Carbon Monoxide Awareness

Carbon monoxide (CO) is a poisonous, colorless, odorless, and tasteless gas. Although it has no detectable odor, CO is often mixed with other gases that do have an odor. So, you can inhale carbon monoxide right along with gases that you can smell and not even know that CO is present. CO is a common industrial hazard resulting from the incomplete burning of material containing carbon such as natural gas, gasoline, kerosene, oil, propane, coal, or wood. Forges, blast furnaces and coke ovens produce CO, but one of the most common sources of exposure in the workplace are the internal combustion engine.

Symptoms of CO exposure

- Headaches, dizziness, and drowsiness.
- Nausea, vomiting, tightness across the chest.
- Some Sources of Exposure
- Portable generators/generators in buildings.
- Concrete cutting saws, compressors.
- Power trowels, floor buffers, space heaters.
- Welding, gasoline powered pumps.



Preventing CO Exposure

- ✓ Never use a generator indoors or in enclosed or partially enclosed spaces such as garages, crawl spaces, and basements. Opening windows and doors in an enclosed space may prevent CO buildup.
- ✓ Make sure the generator has 3-4 feet of clear space on all sides and above it to ensure adequate ventilation.
- ✓ Do not use a generator outdoors if placed near doors, windows or vents which could allow CO to enter and build up in occupied spaces.
- ✓ When using space heaters and stoves ensure that they are in good working order to reduce CO buildup, and never use in enclosed spaces or indoors.
- ✓ Consider using tools powered by electricity or compressed air, if available.

What are the OSHA standards for CO exposure?

The OSHA PEL for CO is 50 parts per million (ppm).

OSHA standards prohibit worker exposure to more than 50 parts of CO gas per million parts of air averaged during an 8-hour time.

The 8-hour PEL for CO in maritime operations is also 50 ppm. Maritime workers, however, must be removed from exposure if the CO concentration in the atmosphere exceeds 100 ppm. The peak CO level for employees engaged in Ro-Ro operations (roll-on roll off operations during cargo loading and unloading) is 200 ppm.

CO Fact Sheet

0.5 to 5 ppm	Normal Level in home
5 to 15 ppm	Acceptable level near furnace
35 ppm	Work place limit -8hr avg (NIOSH)
100 ppm	Leave area immediately
200 ppm	Dizzness, Nausea, Fatigue
400 ppm	3hr exposore may be fatal
800 ppm	2hr exposure may be fatal
6400 ppm	30min exposure cuases unconciousness, death
12800 ppm	1 to 3 min exposure cuases unconciousness, death

100 ppm =0.01%

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