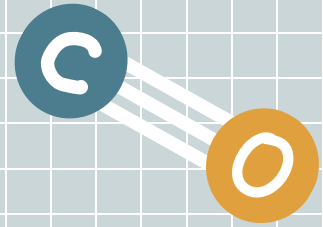


RECOMMENDATIONS:

Carbon Monoxide (CO) Poisoning Prevention



ALL WORKERS & EQUIPMENT USERS SHOULD:

- NOT allow the use of or operate gasoline-powered engines or tools inside buildings or in partially enclosed areas unless gasoline engines can be located outside away from air intakes.
- Learn to recognize symptoms and signs of CO over-exposure/poisoning.
- Always place the pump and power unit of high-pressure washers outdoors and away from air intakes so that engine exhaust is not drawn indoors where the work is being done. Run only the high-pressure wash line inside.
- Consider the use of tools powered by electricity or compressed air if they are available and can be used safely (e.g., electric-powered tools present an electrocution hazard and require specific safety precautions).
- If compressed air is used, place the gasoline-powered compressor outdoors and away from air intakes so that engine exhaust is not drawn indoors where the work is being done.
- Use personal CO monitors where potential sources of CO are present. These monitors should be equipped with audible alarms to warn workers when CO concentrations are too high or when exceeding the NIOSH Ceiling limit for CO of 200 parts per million.

EQUIPMENT USERS SHOULD ALSO:

- Substitute with less hazardous equipment whenever possible. Use electric tools or tools with engines that are separate from the tool and can be located outside and away from air intakes.
- Learn to recognize the warning symptoms of CO poisoning.
- If you have any symptoms, immediately turn off equipment and go outdoors or to a place with uncontaminated air.
- Call 911 or another local emergency number for medical attention or assistance if symptoms occur. Do NOT drive a motor vehicle. Have another individual transport you to a health care facility.
- Stay away from the work area until the tool has been deactivated and measured CO concentrations are below accepted guidelines and standards.
- Watch co-workers for the signs of CO toxicity.

SIGNS & SYMPTOMS OF CO POISONING

headache, nausea, weakness, chest pain, dizziness, visual disturbances, changes in personality, confusion, loss of consciousness

NOTE: Any of these symptoms and signs can occur within minutes of usage.

CO CONCENTRATION LEVELS:

LOW

< 9 ppm: Comfortable living concentration (35 ppm = 8-hr allowable)

Note: Children, elderly, pregnant women, people with heart problems, etc. are at risk at lower CO concentrations.

MEDIUM

200 ppm: Headache, dizziness, nausea in 2 hours

HIGH

400 ppm: Life threatening in 3 hours

EMPLOYERS SHOULD ALSO:

- Conduct a workplace survey to identify all potential sources of CO exposure.
- Educate workers about sources and conditions that may result in CO poisoning as well as symptoms and control of CO exposure.
- Always substitute with less hazardous equipment if possible. Use equipment that allows for placement of gasoline-powered engines outdoors at a safe distance from air entering the building.
- Monitor employees CO exposure to determine the extent of the hazard.