INVESTIGATION/RESEARCH

CO: WHAT YOU CANNOT SMELL CAN KILL YOU

Since 2001, 10 workers have died in Michigan from exposure to carbon monoxide (CO). CO is a colorless, odorless gas that can quickly build up to a lethal concentration. Exposure to high levels of CO can cause unconsciousness, coma, and death. Recent fatalities due to CO exposure include:

- 70-year-old church security guard died from CO poisoning from an indoor generator.
- 45-year-old farmer died from CO poisoning while repairing a tractor in a barn from tractor exhaust.
- 47-year-old painter spraying water-based latex paint died from CO poisoning in a manufacturing plant from a propane-powered snorkel lift.
- 40-year-old construction company owner died from CO poisoning at a construction site from a portable propane space heater.

IN ORDER TO PREVENT SIMILAR INCIDENTS IN THE FUTURE

- Provide training to recognize CO sources and signs and symptoms of CO exposure.
- Identify all sources of combustion because all emit CO gas.
- Install a CO detector/alarm meeting the requirements of the current UL standard 2034 or the IAS 6-96 standard in areas where fuel-burning equipment/appliances are present.
- Ensure a trained professional annually inspects and services fuel-burning equipment and appliances, such as an oil or gas furnace, gas hot water heaters, or portable compressors. When measuring tailpipe exhaust of LPG fork trucks to minimize CO output, use a CO analyzer specifically designed for that purpose.
- Use tools powered by electricity or compressed air approved for indoor use when working indoors.
- Place gasoline- or fuel-powered equipment outdoors and away from windows, doors, or vents. CO could enter the building through the openings and build up in the work area.
- If gasoline- or fuel-powered equipment must be used indoors or in enclosed or partially-enclosed spaces, such as houses, garages, crawl spaces and basements, vent equipment exhaust outdoors and away from air intakes such as doors, windows or fresh air vents. Provide supplemental fresh air inside the building because even with doors and windows open, CO levels can reach lethal levels in a short period of time.

MIFACE Investigation Report #06MI204:
Security Guard Dies Due to CO Poisoning.
www.oem.msu.edu

MIOSHA: Carbon Monoxide.
www.michigan.gov/documents/cis_wsh_cet5010_90097_7.doc

MIOSHA: Carbon Monoxide Hazards from Internal Combustion Engines.
www.michigan.gov/documents/cis_wsh_cet5011_115680_7.doc

WAYNE STATE UNIVERSITY: CO
Headquarters www.coheadquarters.com

DID YOU KNOW?

- Common sources of CO exposure in the workplace include generators, pressure washers, propane-powered forklifts, propane space heaters, and compressors.
- You cannot rely on smell to detect CO.
- Symptoms of CO poisoning are hard to recognize because they may mimic flu symptoms (but without the fever). CO poisoning symptoms include: tightness in chest, shortness of breath, headache, vomiting, dizziness, and muscle weakness.
- People exposed to CO who have preexisting heart disease or hardening of the arteries are at increased risk of having a heart attack or stroke.
- CO poisoning can cause permanent damage to organs, such as the heart and brain that require a rich supply of oxygen.

TO REPORT A NEW WORKPLACE FATALITY TO MIOSHA

1.800.858.0397

MICHIGAN FATALITY ASSESSMENT & CONTROL EVALUATION

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