



# MAFES Dawg Tracks

July 29, 2013



## Safety Tips: Carbon Monoxide Safety



Carbon monoxide (CO) has been called the silent killer because it is colorless, odorless, and invisible. Carbon Monoxide gas is created when fuels such as gasoline, wood, coal, natural gas, propane, oil, propane and methane burn incompletely. In our homes, if we burn fuel, our heating and cooking equipment can be source of fire.

As the winters get colder, and we try to seal the avenues of draft coming in from outside like under doors and around windows, we should not forget the risk of carbon monoxide in our homes.

Around our research units there are several legal sources of carbon monoxide which we need to consider. Following are some of these items:

- Gasoline powered pressure washers
- Cars, trucks, and other types of vehicles
- Gasoline and propane powered lift trucks
- Gasoline powered lawn mowers, snow blowers, generators, motorcycles, boat motors, snowmobiles and small lawn appliances
- Gas home appliances and fireplaces
- Ice-maintenance machines
- Welding equipment
- Fuel-fire heating systems
- Temporary heaters used in construction and athletic events for sideline heat.

Carbon monoxide is toxic to humans because:

- It displaces oxygen in the blood and starves cells of oxygen.
- At levels of between 80 and 100 parts per million, it can bring on chest pain and cause an irregular heartbeat after 1 to 2 hours of exposure.
- At 100 & 200 parts per million, it can cause headaches, irritability, dizziness, nausea and mental impairment, which could impair an employee's ability to get out to fresh air.
- At 700 parts per million for 1 hour, people may become extremely confused, suffer convulsions, lapse into a coma and die.

- For someone who has been rescued and treated medically for carbon monoxide exposure can still suffer permanent brain, heart, and lung damage.
- Carbon monoxide levels should never be allowed to exceed 25 parts per million over an 8 hour stint.

### Carbon Monoxide Safety Tips-

- Always place gasoline powered equipment outside and away from air intakes.
- Do not operate gas or propane engines inside unless fumes can be exhausted outside.
- Properly maintaining forklifts within recommended emission limits.
- Provide adequate ventilation for mobile equipment used indoors.

### Carbon Monoxide Alarms-

Carbon monoxide can be deadly if left alone and precautions aren't taken to control it.

- ✓ Alarms should be installed in all of our workshops if they aren't already, and there are not many that I know of. We should encourage all employees to install them in their homes as well.
- ✓ When purchasing an alarm or alarms for shops or homes, be sure that they have the label of a recognizable testing laboratory.
- ✓ Instructions for installation and maintenance are listed on the manufacturer's instructions.
- ✓ Call your local fire department (non-emergency number) to find out the number to call if the CO alarm goes off.
- ✓ Test the alarms monthly and change the batteries periodically (see manufacturer's instructions for recommended times).
- ✓ Do not use gas or charcoal grills inside - **always** outside.
- ✓ If you have to use a portable generator, make sure that it is in a well-ventilated area.

**REFRAIN FROM HARM  
 USE ALARMS!  
 ALERT TODAY ~ ALIVE  
 TOMORROW**