



EMPIRE
PACIFIC

Risk Management, Inc.

SURVIVING THE DEADLY SILENT KILLER

Company Name _____ Job Name _____

It's that time of year when we all require heat to stay warm and survive the winter cold. The fuels that we burn to create heat also produce CARBON MONOXIDE gas, commonly known as "CO", as a by-product of the combustion process. Carbon monoxide is colorless, odorless, and very deadly since color recognition and smell are many times the senses we rely on to warn us of danger.

Inhalation of carbon monoxide decreases the ability of blood to carry oxygen to parts of the body. The reason for this is CO attaches to the red blood cells more readily than oxygen. In fact, the blood attraction for CO is about 240 times stronger than for oxygen. Consequently, the affects can be accumulated over several hours in low concentration areas. This is why even low levels of CO can be deadly. Some signs of CO poisoning are drowsiness, headaches, nausea, dizziness, and rapid breathing. Others may notice a cyanotic or a "bluish" cast to the skin color due to the lack of oxygen in the tissues. Very high concentrations of CO can be quickly fatal without any warning symptoms.

People are killed every winter from CO entering their car or truck from leaking exhaust systems. If you must sit with the engine idling for long periods to stay warm, keep a window partially open to allow fresh air to filter in. On long trips, open a window or wing vent slightly to prevent an accumulation of CO, if there is any possibility of a leaking exhaust system. Of course, it is better not to have a leaking exhaust system in the first place. Have it inspected and repaired if it leaks.

Every year people die from using various unvented heating devices in enclosed spaces. Typically this involves: using a barbecue for heating or cooking; using an unvented gas oven or stove for space heating; or using propane-fired heaters in enclosed areas. None of these should be used in tightly enclosed areas, since the fumes from the spent fuel have no way to vent to the outside to prevent the buildup of dangerous levels of carbon monoxide. It is also a very good idea to have all heating appliances checked before cold weather sets in to make sure they are in good working order - burners are properly adjusted, and vent pipes are unobstructed and in

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good condition. Most utility companies provide this service without charge. Much like smoke detectors, CO detectors are readily available for your home if you desire.

If you suspect CO may be present, or experience any of the symptoms described, get out of the area immediately. If possible, open windows and doors to let in fresh air. Turn off any devices that you think may be causing the problem and do not go back until the area has been determined to be safe.

Remember, you can't smell or see Carbon Monoxide, but it can kill you just the same.

Safety Recommendations: _____

Job Specific Topics: _____

M.S.D.S Reviewed: _____

List of Attendees

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