

Two circumstances must exist to make carbon monoxide a hazard:

- It is produced in concentrations that can affect health or hurt someone.
- An open path exists for CO to reach people.

Carbon monoxide has a natural tendency to rise in temperatures normally found inside buildings. At freezing temperatures, carbon monoxide is heavier than air. Please keep in mind that cold days in areas of high automotive activity, outdoor ambient CO levels may be more noticeable than on days above freezing.

Other combustion by-products can contribute to poor health symptoms even when CO is not produced. These by-products include NOX gases and excessive CO₂. Acidic moisture from combustion gases can also be harmful.

Though carbon monoxide is odorless, a distinct pungent odor can occur (but not always) during incomplete combustion. Aldehydes are a by-product of incomplete combustion and come with this pungent odor. Often times this odor is mistaken by the consumer as a gas leak. Auto exhaust may also have an odor of raw fuel.

IN GAS OR OIL BURNING SYSTEMS, PROPER COMBUSTION CONDITIONS INCLUDE:

1. Flow of fuel is specific – measure it. Measure in water column inches or PSI (Pounds per square inch). Always check manufacturer specifications.
2. Air and fuel mixtures – measurable. Combustion analyzers offer O₂, CO, flue-stack temperature measurements. CO₂, efficiency and CO air free are calculations. Combustion air is adequate, to code and does not interfere with combustion systems performance.
3. Fuel burns completely, without impingement or interference – minimal CO production.
4. Systems with vents shall draft without interruption and installed as specified in accordance to vent manufacturers sizing, installation and performance requirements.