



ADDENDUM 3

Carbon Monoxide Protocol and Response Plan Northbrook School District 27

What is Carbon Monoxide?

Carbon Monoxide (CO) is an odorless, colorless and tasteless gas, which in high concentrations can lead to convulsions, loss of consciousness and potentially death.

CO is a by-product of incomplete combustion caused by the burning of fossil fuels, whether it is natural gas, gasoline, diesel fuel, kerosene, wood or any other organic or carbon based material.

How can Carbon Monoxide enter a building?

Carbon Monoxide has the potential to enter a building at any time during the year via mechanical ventilation & heating equipment, idling vehicles or power equipment being operated in close proximity to a building. Emergency calls due to elevated CO levels are most prevalent during the winter heating season.

What are the effects of Carbon Monoxide exposure?

Carbon Monoxide enters the body through the lungs as part of the respiration process. Once inside the body, elevated levels of CO disrupts the body's ability to carry oxygen to vital organs. Carbon Monoxide is able to attach itself to the hemoglobin in red blood cells 250 times more readily than oxygen does, essentially suffocating the body of oxygen from the inside out. The brain and heart are the most sensitive organs to CO exposure.

The elderly, very young and those with compromised immune systems are at greater risk and have a higher sensitivity to CO poisoning.

Depending on the concentration of Carbon Monoxide, a person may feel one or more of the following symptoms:

- Headache with throbbing temples
- Shortness of breath during physical exertion
- Tightness across the forehead
- Confusion
- Drowsiness
- Flu-like symptoms
- Fast heart rate
- Nausea
- Vomiting

In extremely high Carbon Monoxide levels and individual may experience:

- Convulsions
- Unconsciousness
- Cardio respiratory failure
- Death

Carbon Monoxide (CO) Detectors in Northbrook School District 27

Northbrook School District 27 has placed carbon monoxide alarm units in several locations in the District's schools to monitor for Carbon Monoxide within a school building. District 27 has had CO detection devices in place at selected interior school locations prior to the governmental requirement requiring them.

Public Act 099-0470

In compliance of Public Act 099-0470 regarding the placement of Carbon Monoxide alarms or detectors in schools, District 27 will be adding additional A/C powered - battery back-up CO detectors in the schools as needed, providing CO monitoring on a 24/7 basis.

These CO monitoring devices are local notification devices, meaning they sound themselves only and are not tied into the school's fire alarm panel. Anyone observing activation of a Carbon Monoxide detector, either visually or audibly, shall without hesitation, notify the school office and the school Building Chief of the activation, to have it immediately investigated. Although most CO detector activations are not life threatening, all CO alarms are to be given the highest priority and attention.

While there are Occupational Safety Health Act (OSHA) and Environmental Protection Agency (EPA) exposure level guidelines regarding Carbon Monoxide concentrations, there are no Federal or State requirements or guidelines at this time regarding a Carbon Monoxide response protocol.

How To Respond In The Event of Carbon Monoxide Alarm Activation:

- Immediately notify the main school office and Building Chief of the CO alarm location to verify if there is a true carbon monoxide emergency.
- If after verification, the alarm is deemed to be a carbon monoxide emergency, immediately evacuate that portion of the building or the entire building if deemed necessary due to the extent of the issue. If at any time, should anyone show signs of CO poisoning, evacuate the entire building.
- Call 911.
- Once relocated or evacuated, the School Incident Commander along with the school nurse shall determine if anyone is complaining of, reporting or presenting symptoms of carbon monoxide exposure. Be prepared to report this information to the responding Fire Department representatives.
- Implement off -site evacuation procedure if warranted.
- Follow all directives of the responding local Fire Department regarding building re-entry.