# Carbon Monoxide (CO) Alarm Response Plan for On-Campus Apartments

Any time that your CO detector sounds an alarm, the situation requires an immediate response. Remember that an alarm indicates elevated levels of CO in your apartment. CO is called the "silent killer" because it cannot be seen or smelled. Some people can be exposed to dangerous levels of CO and not feel any symptoms. Regardless of whether you feel symptoms, never ignore the alarm.

## What do I do if my CO alarm sounds?

- Open windows and doors to air out your apartment.
- Call Campus Safety at 3-3333. Campus Safety will have either a Calvin College mechanical systems technician or the Grand Rapids Fire Department come to your apartment.
- Leave your apartment and move to fresh air.
- Check to make sure that everyone in your apartment is accounted for.
- Do not re-enter the apartment until help has arrived, the apartment has been sufficiently aired out, and your CO alarm remains in its normal condition.

## **Understanding the alarm light and horn patterns:**

Condition	Horn	Lights	<b>Test/reset Button</b>
CO is detected	Horn sounds 4 short	RED light flashes 4	Quick press activates
	tones then pauses, every	times right after horn	CO Reset
	5 seconds		
Smoke is detected	Horn sounds 3 long	Both RED lights flash	Quick press activates
	tones then pauses, every	with horn	False Alarm control
	4 seconds		
Low Battery	Horn beeps once per	YELLOW light flashes	Quick press will
	minute	2 times per minute after	eliminate the low-
		horn beeps	battery warning for
			about 10 hours
Detector not functioning	Horn beeps twice a	YELLOW light flashes	Press the button to allow
and must be replaced	minute		the alarm to reset and
_			self test. If the fault
			signal continues, request
			a new detector

#### What is carbon monoxide?

Carbon monoxide, known by the chemical formula "CO", is a poisonous gas that kills approximately 534 people in the United States alone every year. Of that number, about 207 people were killed by carbon monoxide emitted from a consumer product, like a stove or water heater. You can't hear, taste, see or smell it. It's nicknamed the "silent killer' because it sneaks up on its victims and can take lives without warning.

#### What are the sources of CO?

CO is a by-product of incomplete combustion. CO sources can include malfunctioning appliances -- including furnaces, stoves, ovens and water heaters -- that operate by burning fossil fuels such as natural or liquefied petroleum (LP). When malfunctioning appliances aren't adequately ventilated, the amount of CO in the air may rise to a level that can cause illness or even death.

Other CO sources include vehicle exhaust, blocked chimney flues, fuel-burning cooking appliances used for heating purposes, and charcoal grills used in the home, tent, camper, garage or other unventilated areas.

## How does CO affect the human body?

When victims inhale CO, the toxic gas enters the bloodstream and replaces the oxygen molecules found on the critical blood component, hemoglobin, depriving the heart and brain of the oxygen necessary to function.

The following symptoms are related to carbon monoxide poisoning and should be discussed with all members of the household:

**Mild exposure:** Often described as flu-like symptoms, including slight headache, nausea, vomiting, fatigue.

**Medium exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate.

Extreme exposure: Unconsciousness, convulsions, cardiorespiratory failure, death.

Many cases of reported carbon monoxide poisoning indicate that while victims are aware they are not well, they become so disoriented, that they are unable to save themselves by either exiting the building or calling for assistance. Young children and household pets are typically the first affected.

Carbon monoxide alarms are intended to alarm at carbon monoxide levels below those that cause a loss of ability to react to the danger of carbon monoxide exposures.

## Campus Safety Dispatch Carbon Monoxide (CO) Alarm Response Plan

Caller states that the CO detector in their apartment is alarming

Ask if any of the occupants have symptoms of CO overexposure (flu-like symptoms, headache, nausea, vomiting, fatigue, drowsiness, confusion, fast heart rate, unconsciousness, or convulsions)

If YES: instruct the occupants to leave their apartment and move to fresh air. Check to make sure that everyone in your apartment is accounted for. If NO: instruct the occupants to leave their apartment and move to fresh air. Check to make sure that everyone in your apartment is accounted for.

Call 911 for a fire department response and the Campus Safety Supervisor immediately Call Physical Plant:

- Normal business hours at 66444
- Any other time call ON-CALL MAINTENANCE

If you **cannot** reach a Physical Plant maintenance person

If you do reach a Physical Plant instruct them to send a HVAC technician to investigate for sources of CO with a CO monitor

Record the following information: Dispatcher name	Date	
Name of caller	Location of alarm	
Time Number called from _		
Injuries		
Campus Safety Supervisor called	Time Response	
Physical Plant personnel called	Time Response	
911 called Time Response		