

Waterloo Vol Fire Department Standard Operating Guidelines

CARBON MONOXIDE RESPONSE

Responses to determine the presence of Carbon Monoxide (CO) shall be handled as a modified Haz-Mat response. While all firefighters should respond to the call, only those persons, who are trained on the proper use of the metering device being used, may monitor for the presence of CO.

CAUTION – CO is **highly toxic** (1500 ppm will cause death in 15 minutes), however it is also **highly combustible**, and burns at very high temperatures. CO is odorless, colorless and tasteless. It can only be detected by appropriate metering devices.

Response

CO responses will be classified as either Emergency or Non-Emergency.

If Dispatch determines that any of the following conditions exist, then a full emergency response should follow:

Emergency Response

- Smoke or fire condition exists
- Occupants exhibiting flu like symptoms, are disoriented or are unconscious

Non-Emergency Response

If none of the above conditions are present, first due engine or designated vehicle will respond in the normal flow of traffic.

Operations

- Arriving responders should remain at the front door or outside of the premises until direct read meters and qualified personnel arrive on the scene. Qualified responders will monitor the premises for the presence of CO. Unless the source of CO is readily apparent, all hydrocarbon fueled appliances, stoves, boilers and heaters should be operating during the monitoring phase.
- Occupants will be interviewed by the IC to determine the need for EMS response. If requested by the occupants, or if any person is exhibiting symptoms that suggest the possibility of CO exposure/poisoning, then EMS shall be called to the scene.
- If, at any time during the monitoring phase, the direct read meters indicate a concentration of CO in excess of 20 ppm, or Oxygen by volume of less than 19.5%, then the monitoring team shall don SCBA. If the use of SCBA is indicated, the continued metering operations shall be conducted by 2 qualified persons, in accordance with SOG-2020-002 – Respirator and Breathing Apparatus.
- If CO concentrations of 10 ppm or above are found, then the IC shall evacuate the occupants from the premises. At the discretion of the IC, occupants may be

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permitted to re-enter when concentrations are below 10 ppm, however, the IC should advise the occupants that low concentrations of CO are present, and the possibility of associated health risks exists.

- If CO concentrations are present, the IC will take appropriate defensive actions to mitigate continued discharge of CO. Those actions may include turning off appliances or furnaces. In addition, the IC will ventilate as appropriate in an attempt to reduce the CO levels.
- Any CO concentrations above 10 ppm will require a response from the appropriate fuel provider.
- If the CO alarm is sounding and there is no detection of a CO concentration on-scene personal can change the alarm battery or advise occupant to obtain a replacement alarm.

IN NO EVENT ARE RESPONDERS TO ATTEMPT TO MAKE ANY REPAIRS ANY APPLIANCE.