CARBON MONOXIDE ALARM

Carbon monoxide is an odorless, tasteless, colorless gas that is deadly. It is a by-product of a fuel burning process. Many appliances such as furnaces, kitchen stoves, hot water heaters, automobiles, etc., can produce carbon monoxide. When a faulty or unusual condition exists, carbon monoxide may be vented into areas where people are present.

Carbon monoxide poisoning may be difficult to diagnose. Its symptoms are similar to the flu, which may include headache, nausea, fatigue and dizzy spells due to this during the heating months the CO detector will be utilized at all EMS calls involving an Illness.
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The safe exposure of CO according to OSHA is 35 ppm. The EPA's National Ambient Air Quality Stander is 9 ppm for 8 hours / or 35 ppm for 1 hour. Normal atmosphere conditions may contain 3 to 4 ppm.

Nature of Complaint and Response

Response to carbon monoxide alarms will depend upon information received in the initial dispatch message, and from updates received from other agencies that may also be responding to the alarm.

1. Carbon monoxide detector activated - occupant(s) complain of flu like symptoms: Respond, 2762 Emergency Response
2. Carbon monoxide detector activated - no medical symptoms of occupant(s): Respond, 2762 Non Emergency Response

Investigation Procedures

1. The first arriving officer shall establish command.
2. Determine if any persons at the scene are exhibiting symptoms of carbon monoxide poisoning; if so, immediately evacuate and ventilate the premises and request EMS if not enroute already.

A. If no one exhibits symptoms of carbon monoxide poisoning, it will not be necessary to evacuate or ventilate the premises unless a level of over 9 ppm is detected.

B. The incident commander shall request that the gas company respond to the scene if:

- A CO level of over 9 ppm is detected.
- Someone is showing signs of being ill due to carbon monoxide.
- The incident commander feels a response by the gas company is needed.

C. Gather information from occupant(s) about what they were doing and if any combustion appliances were being used.

- Where is the detector located? How long has the detector been alarming?
- Has the dwelling been ventilated? If so, how long?
- Was a car running in the attached garage.

D. Carbon monoxide investigations (Procedure):

- Initiate a survey of the premises to determine if there are any amounts above 9 ppm of carbon monoxide present. Start monitoring outside the structure moving inward.
- All personnel shall make complete use of the SCBA in any atmosphere in excess of 35 ppm of CO.

Using what the monitor tells you:

Readings of 9 ppm or less:

1. Inform occupants that our instruments did not detect an elevated level of CO at this time.
2. Recommend that occupants check their CO detector per manufacturer recommendations.
3. Attempt to reset detector.

Readings of more that 9 ppm

1. Note the highest level of CO found; inform EMS of findings.
2. Inform occupants of potentially dangerous levels of CO inside the structure.
3. If the source of the CO is found, shut off the appliance. Inform occupants to have someone come and service the appliance.
4. Ventilate structure.
5. Attempt to reset detector. It may take from 5 to 48 hours for the detector to reset; some units require sensor replacement.

First Aid:

1. Move occupants to fresh air (outside structure).
2. Administer oxygen as needed.

Down Drafting: exists primarily in newer, more energy efficient, airtight homes. Air pressure in an airtight home may be lower than the outside causing flue gases to flow back into the home.

Concentration Symptoms:

- 35 ppm - No adverse effects within 8 hours.
- 200 ppm - Mild headache after 2-3 hours of exposure.
- 400 ppm - Headache and nausea after 1-2 hours.
- 800 ppm - Headache, nausea and dizziness after 45 minutes.
- 1000 ppm - Loss of consciousness after 1 hour.
- 1600 ppm - Headache, nausea and dizziness after 20 min. unconsciousness after 30 min.
- 3200 ppm - Headache, nausea and dizziness after 5-10 min. unconsciousness 30 min
- 12800 ppm - Immediate effects; unconsciousness and danger of death after 1-3 min.