

## **Falmouth Fire-EMS Operating Guideline**

### **Response to Carbon Monoxide Alarms**

**Objective:** Establish a uniform procedure to the Falmouth Fire-EMS Department's response to reports of carbon monoxide (CO) incidents.

#### General Information:

Carbon monoxide is an odorless, tasteless, colorless gas that is deadly. It is a by-product of a fuel burning process. Many appliances fueled with gas, oil, kerosene or wood (such as furnaces, kitchen stoves and hot water heaters) can produce carbon monoxide.

Automobiles and other gas-powered equipment can also 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.

The Occupational Safety and Health Administration (OSHA) has established a maximum safe working level for carbon monoxide (CO) at 35 parts per million (ppm) over an 8-hour period, in the general workplace. The U.S. Environmental Protection Agency has established that residential levels are not to exceed 9 ppm over an 8-hour average.

#### **Procedure:**

##### **A. Dispatch**

1. When a call is received regarding carbon monoxide, the dispatcher shall attempt to verify if the mechanism that is sounding the alarm is a smoke detector or a carbon monoxide (CO) detector.
2. If the alarm is a smoke detector, the dispatcher shall determine what fire response is necessary. If the alarm is a CO detector, the dispatcher will dispatch the district engine and ambulance and will try to determine from the caller if anyone in the building has any of the following symptoms:
  - i. Nausea, Headache, Vomiting, Redness of skin, Drowsiness.
3. If any of these symptoms are reported, dispatch will notify responding units.

##### **B. Company Operations**

1. The Company Officer on the responding engine shall establish scene control and will serve as the Incident Commander until relieved.
2. The Company Officer will do the following:
  - a. Respond with full PPE and SCBA
  - b. If an alarm is sounding, determine if the alarm is coming from a smoke detector or a CO detector to determine appropriate action.

- c. Determine if anyone is exhibiting any symptoms of possible CO poisoning, if so immediately evacuate and ventilate that area if an unsafe level exists.
- d. Request additional resources as needed.
- e. If nobody exhibits any symptoms of CO poisoning, it may not be necessary to evacuate or ventilate.
- f. Require that all occupants leave the premise and evacuate if over 100 ppm CO and ventilate if over 35 ppm CO, until such time as the cause of the elevated CO levels is repaired.

### **C. Investigation Procedures**

- 1. Ask occupants what fuel burning appliances are or have been operating such as: furnace, wood stove, coal stove, kerosene heaters, gas appliances, tobacco smokers, etc.; ask what was going on before the alarm sounded or before the occupants became ill. (Car starting in garage, snow blower or lawnmower, etc.)
- 2. Zero the meter in fresh air and comply with all other start up procedures as recommended by the manufacturer of the meter.
- 3. Initiate a survey of the premises to determine if there are any amounts of CO present.
- 4. The Company Officer shall request the presence of the service company (oil burner, gas, etc.) that serves this particular occupancy or appliance if:
  - a. A CO level of over 5 ppm is indicated on the meter.
  - b. The responding company finds it necessary to shut down an appliance.
  - c. Somebody is showing signs of being ill due to CO poisoning.
  - d. The Company Officer feels their response is necessary.
- 5. All members shall make complete use of SCBA in any atmosphere that is in excess of 25 ppm of CO.
- 6. If a reading of 5 ppm or less is obtained:
  - a. Inform the occupants that our meter did not detect an elevated level of CO at this time.
  - b. Recommend that the occupants check their CO detector per manufacturer's recommendations.
  - c. Inform the occupants to call 911 if the detector activates again.
  - d. Inform the occupants to call 911 if they exhibit any of the signs and symptoms of potential carbon monoxide poisoning.
  - e. Complete Owner Acknowledgement Form documenting CO and actions taken.
- 7. If a reading of more than 5 ppm is obtained: (above 5 ppm shall be considered above normal)
  - a. Inform occupants that we have detected CO.
  - b. Require that all occupants leave the premises. The responding company must then begin ventilation.
  - c. Shut down appliance if it is malfunctioning and determined to be producing CO.

- d. After the CO has been reduced to a safe level, the premises may be occupied at the discretion of the occupant.
- e. Recommend that the occupants check their CO detector per manufacturer's recommendations.
- f. Inform the occupants to call 911 if the detector activates again.
- g. Inform the occupants to call 911 if they exhibit any of the signs and symptoms of potential carbon monoxide poisoning.
- h. Inform the occupants of the actions taken and that the service company (oil burner, gas, etc.) has been requested to respond by the Fire Department.
- i. Complete Owner Acknowledgement Form documenting CO and actions taken.

These guidelines may be changed or altered by the Fire Chief at any time.