

SUBJECT: CARBON MONOXIDE RESPONSES**SECTION:** 303.08**REVISED:** OCTOBER 15, 2003**PAGE(S):** 3

PURPOSE

Establish a procedure for the Reading Fire Department's response to reports of Carbon Monoxide (CO) incidents.

GENERAL

Carbon monoxide is an odorless, tasteless, colorless gas that is deadly. It is a byproduct of a fuel burning process. Many applications in the home can produce carbon monoxide.

Carbon monoxide poisoning may be difficult to diagnose. Its symptoms are similar to the flu, which may include headache, nausea, fatigue, and dizzy spells.

OSHA has established a maximum safe working level for carbon monoxide at 35 parts per million (ppm) over an 8 hour period, in the general work place. The US E.P.A. has established that residential levels are not to exceed 9 ppm over an 8 hour average.

PROCEDURE

- A. Verification of type of alarm.
 - 1. Arriving unit(s) shall attempt to determine if the alarm is a smoke detector or a carbon monoxide detector.
 - a. If it is a smoke detector alarm:
 - i. Investigate the cause of the alarm.
 - ii. Take the necessary action to mitigate the situation.
 - iii. Call for assistance if needed.
 - b. If it is a carbon monoxide alarm:
 - i. Determine if anyone is exhibiting any symptoms of CO poisoning; If so, immediately evacuate the premise.
 - ii. Treat the victim(s) and advise them of the need to be transported to a medical facility for evaluation.
 - iii. If victims refuse treatment/transportation, they must sign a release form.
 - iv. Request additional assistance if needed.
 - v. Begin the investigation procedure.
- B. Investigation Procedure
 - 1. Follow start up procedures as recommended by the meter manufacturer.

2. Zero the meter.
3. Initiate a survey of the entire premises to determine if there are any levels of CO present.
 - a. Evacuate the premises if CO levels greater than 9 ppm are detected by the meter.
 - b. The company officer, at his/her discretion, should request that the gas company respond to the scene if:
 - i. A CO level over 9 ppm is indicated on the meter.
 - ii. There is a need to shut off a gas appliance.
 - iii. Someone is showing signs of CO poisoning.
 - iv. The company officer feels a response of the gas company is needed.
4. Attempt to reconstruct the residence to a "like" condition prior to when the alarm activated.
 - a. Determine which appliances were on at the time of the alarm and turn them back on.
 - b. Determine which openings were open/closed and set these in their pre-alarm position.
 - c. Allow the appliances to operate for at least 10 minutes prior to taking readings.
 - d. Remember that vehicles and grills can also produce CO levels if operated in confined areas.
5. Should the above procedure prove uneventful, set up the premises in a "worse case" scenario.
 - a. Close all doors and windows in the building.
 - b. If there is a fireplace, close the damper – provided there is no fire in the fireplace.
 - c. Turn on all fuel fired appliances; including the furnace, water heater, stove, dryer, and portable space heaters.
 - d. Turn on all exhaust fans including bathroom and kitchen (if vented outside).
 - e. Wait 10 minutes and take readings.
6. **Readings of 9 ppm or less:**
 - a. Inform the occupants that our instruments did not detect an elevated level of CO at this time.
 - b. Recommend occupants check their detector per manufacturer recommendations.
 - c. Attempt to reset the detector.
 - d. Inform occupants that if it activates again to call the fire department again.
7. **Readings of more than 9 ppm but less than 100 ppm:**
 - a. Any readings above 9 ppm shall be considered above normal.
 - b. Occupants should be informed that we have detected a potentially dangerous level of CO.
 - c. Recommend that all persons leave the premises and begin ventilation.

- d. If it is determined that an appliance is malfunctioning and thereby producing CO, it shall be shut down and red tagged.
 - e. Once the premise has been reduced to a safe level of CO, the premises may be occupied at the discretion of the occupant.
 - f. Attempt to reset the detector.
 - g. Inform occupants of the action that have taken place and that C.G.&E./Cingery has been requested to respond. Also inform them that if the detector activates again, to call the fire department.
8. **Readings of 100 ppm or greater:**
- a. Inform the occupants that we have detected a potentially lethal level of CO.
 - b. Order the occupants to leave the premises immediately.
 - c. If an appliance is determined to be malfunctioning and producing CO, it shall be shut down and red tagged.
 - d. Ventilate the premises immediately.
 - e. Once the premise has been reduced to a safe level, it may be occupied at the discretion of the occupants.
 - f. Attempt to reset the detector.
 - g. Inform the occupant of the actions that have taken place and that C.G.&E./Cingery has been requested to respond. Also inform them that if the detector activates again, to call the fire department.
9. A “notice of findings” form shall be completed and signed by the occupants. One copy is to be given to the occupants and the other filed with the report.
10. Meter should be taken back into fresh air and allowed to clear itself before being shut off.