

Operating Guideline # 808

Carbon Monoxide Alarm Response

September 20, 2019



PURPOSE:

The purpose of this Operating Guideline (OG) is to establish guidelines for the response to Carbon Monoxide (CO) alarm activations.

ISSUE/RATIONALE:

Carbon Monoxide is an odourless, colourless, highly flammable gas and is very deadly in relatively low concentrations. Carbon monoxide is a leading cause of poisoning deaths in the home and higher concentrations, unconsciousness can be immediate with a danger of death occurring in minutes if an individual is not rescued.

Carbon monoxide is generally produced by the incomplete combustion of organic or carbon based materials. Appliances such as furnaces, barbeques and water heaters that operate on natural gas or other combustible fuels generate carbon monoxide as do vehicles, generators and other fuel fired motors and engines. Improperly vented wood stoves and fireplaces can also be sources of carbon monoxide.

Fire personnel can be exposed to carbon monoxide in many situations such as an odour investigation or activation of a carbon monoxide detector.

GUIDELINE:

1. Upon receipt of a Carbon Monoxide alarm, Dispatch will attempt to determine the severity of the situation. If the occupants are complaining of flu-like symptoms (including headache, nausea, dizziness or fatigue) an ambulance will be notified to respond. MLFD personnel arriving at the incident by private vehicle shall not enter the structure for any reason without wearing full protective equipment including SCBA.
2. Personnel arriving at the station in response to the alarm shall turn on any multi-gas detector that will be utilised during the incident prior to responding (SEE OG 312 – Single and Multigas Detectors).
3. Upon arrival at the incident, personnel will attempt to determine if symptoms of CO poisoning are present in any of the occupants. The first priority will be to ensure the safety of the occupants and this will extend to neighbours in multi-unit dwellings (i.e. – apartments, condominiums etc.).
4. If any of the residents show any signs or symptoms of medical distress, medical attention will be rendered and an ambulance shall be requested to attend if not already dispatched.
5. Regardless of whether symptoms are present or not present, all personnel shall wear full protective equipment including SCBA when entering any enclosed area or structure.
6. Crews entering the area/structure will be equipped with a single or multi-gas detector, reset (“zeroed”) in clear air prior to entry.

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7. Department personnel will attempt to confirm the existence of CO in the structure and identify the source if CO is detected (i.e. - vehicle engine left running in an attached garage).

8. The following resultant detection equipment readings will be considered by the I/C:
a) Less than 9 ppm rise: Occupants to check detector, replace detector/sensor module.
b) Rise of 9 ppm over ambient air: Potentially dangerous.
c) 100 ppm or above: Potentially fatal.

9. Because of the existence of variables (age, health, pregnancy, duration and intensity of exposure) MLFD personnel WILL NOT recommend that the residents return to the structure where reading in excess of 9 ppm are detected. The only method for determining carbon monoxide poisoning of individuals is by a carboxyhaemoglobin blood test in a hospital.

10. The Officer in charge will recommend that the resident contact the appropriate natural gas utility/service company where appropriate and offer to assist the resident in this regard.

11. Two copies of the Notice of Dangerous Situation: Carbon Monoxide Alarm Emergency sheet will be completed. One copy to be left with the owner/tenant, the other to be returned to the station to be filled with the incident report.

12. Where a gas-fired appliance is found or suspected to be malfunctioning, the I/C shall also notify the TSSA (SEE ALSO OG 823 – Post Incident Notification of Other Agencies)

RESPONSIBILITY:

It is the responsibility of all members to comply with the provisions of this OG and particularly that Company Officers (supervisors) and firefighters (workers) ensure that they adhere to their duties in accordance with the provisions of this document and the Occupational Health and Safety Act.

REFERENCES:

- Occupational Health and Safety Act (RSO 1990, c. 0.1)
- MLFD OG 312 – Single and Multigas Detectors
- MLFD OG 823 – Post Incident Notification of Other Agencies