

# SPOKANE COUNTY FIRE DISTRICT 8

## Standard Operating Procedures

**120.03.02**  
**SPECIAL OPERATIONS,**  
**CARBON MONOXIDE**  
**DETECTORS**



Adopted: 12/20/16  
Reviewed: 11/09/22  
Revised: 11/09/22

Approved: *Jan J. Rahn*

**Purpose:** To ensure effective response to carbon monoxide emergencies within the capabilities of personnel training and equipment.

**References:** WAC 296-824

### **Procedure:**

#### 1. Response and Training.

- a) All District personnel will be trained to recognize the signs and symptoms of carbon monoxide (CO) poisoning and appropriate medical care.
- b) Symptoms of CO poisoning include:
  - i. Headache.
  - ii. Fatigue.
  - iii. Nausea.
  - iv. Dizziness.
  - v. Confusion.

#### 2. General.

- a) CO emergencies represent a threat to responder safety. If in doubt whether CO is present, responders shall utilize appropriate PPE and SCBA until gas monitoring can determine the threat.
- b) CO, a product of incomplete combustion has many common sources including, but not limited to: barbeques, furnaces, cars running in attached garages, stoves, fireplaces, gas operated hot water heaters, gas operated clothes dryers, and downdrafts in the venting of gas operated appliances. A responsible party/reporting party should be helpful in determining the possible source and/or sources.
- c) CO is a colorless, odorless, tasteless toxic gas.
- d) CO alarms will have a legend on them that describes different alarm sounds and their meaning. Generally, these will be a low battery, error message, and/or high CO.
- e) SPO2 readings will not be accurate in the event of a CO poisoning. If exposure to CO is known or suspected, personnel should utilize the Rad 57® CO pulse oximeter (if available) even if the individual exposed does not present with symptoms.
- f) Because a symptom of CO poisoning is confusion, if a patient is symptomatic and says that no one else is inside the structure, a search should still be made.

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### 3. Initial Actions.

- a) Establish command.
- b) Make contact with responsible party/reporting party (RP). If an RP cannot be located outside and no one answers the door, a search of the structure, using full PPE and SCBA should be conducted.
- c) When contact is made with the RP, determine if a medical emergency exists, the number of patients and their location.
- d) If occupants are symptom-free, then entry may be made off-air. If occupants are symptomatic, then entry should be made with full PPE and SCBA.
- e) All entries will utilize a CO monitor per Section 4 of this procedure. The first action should be to determine the nature of the audible alarm:
  - i. Low Battery- Replace battery, if replacement is available.
  - ii. Error Message- If error message exists, reset the CO detector. If these actions do not stop the audible alarm and the alarm is not caused by CO (according to the legend on the unit) then replace the detector with a new one, if replacement is available, and advise the RP to call 911 if it alarms.
  - iii. High CO- If the detector is alarming for CO, keep persons and animals out of the structure and follow Section 4 of procedure.
  - iv. Home detectors are often biomimetic, meaning they copy the human body in how they gain and lose CO. SCFD8 monitors measure what is in the air at the moment they sample it. Consequently, it is possible that either the SCFD8 monitor is alarming correctly and the residential detector is correctly not alarming or the opposite could occur with correctly operating instruments.

### 4. Entry Operations.

- a) Calibrate monitors, if needed, away from the structure and running vehicles.
- b) Test air at the threshold of door. If CO reading is below and remains below 35 ppm, then entry may be made off air, otherwise entry should be made using full PPE and SCBA.
- c) If CO is over 35 ppm and no rescue exists, ventilate the structure to lower CO to below 35 ppm.
- d) After ventilating the structure, close all exterior opening and open all interior doors while doing a walk through to determine if any CO concentrations exist.
- e) If the CO source cannot be determined during the walk through, then shut down all possible CO source appliances. Systematically turn them on,

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testing the air around each. The furnace should be run at least five minutes and the air tested at the register closest to the furnace. If source is still undetermined, personnel shall notify Avista if the structure is supplied with natural gas.

- f) If the source is determined, notify the RP and advise the occupants to stay out of the structure until repairs are made. If the source cannot be determined and CO levels remain below 9ppm and no higher than outside CO levels then replace their detector with a new one, if replacement is available, and advise them to call 911 if it alarms.