

Standard Operating Procedures Manual

City of Poquoson Fire and Rescue



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SPECIAL OPERATIONS

SOP#: SO 9.00

Title: Carbon Monoxide Incident
Operations

Effective Date: 01/01/2009

Revised Date: 01/01/2009

Fire Chief's Signature

City Manager's Signature

CARBON MONOXIDE INCIDENT OPERATIONS

I. PURPOSE

To establish standard procedures for operations at suspected carbon monoxide incidents.

This SOP is not all-inclusive and cannot encompass all situations that may be encountered.

II. POLICY

The Poquoson Fire/Rescue Department responds to and investigates all requests concerning carbon monoxide (CO), including CO detector activations. It is important that all personnel understand procedures concerning CO and function in a safe manner.

III. RESPONSE

Carbon monoxide monitoring devices are carried on all primary response engines and the Rescue Truck.

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For all incidents involving CO, the response shall consist of the primary engine for investigation.

Additional equipment may be requested by the Incident Commander.

IV. PROCEDURES

The first arriving response unit shall establish scene control and conduct an initial assessment.

Evaluate the occupants to determine if they are exhibiting any medical symptoms consistent with carbon monoxide poisoning such as nausea, fatigue, dizziness, headache, or other flu-like symptoms.

If occupants are exhibiting any symptoms associated with carbon monoxide poisoning, the residence, apartment, etc. shall be evacuated. A medic unit shall be requested to evaluate the condition of affected occupants and transport as necessary. **No fire department personnel shall be allowed in the affected area without full protective clothing /equipment and SCBA.**

If occupants are not exhibiting any of the symptoms of carbon monoxide poisoning, fire department personnel may enter the affected area to further continue the investigation to determine if a positive carbon monoxide concentration level exists.

- Zero the meter in fresh air and comply with all other start up procedures as recommended by the manufacturer of the monitoring device.
- Testing should be taken within the occupied areas, at vent register or where otherwise appropriate. Test should be avoided in flue pipes, chimneys, heat exchangers, range vents or other places that would invalidate the test. Testing should also be performed in a smoke-free environment.

The Officer-in-Charge should note whether the structure was ventilated prior to arrival and interview occupants to determine all sources of combustion within the structure.

Based upon the test results, the following actions should be taken:

9 PPM OR LESS

If an atmospheric carbon monoxide concentration inside the affected area is 9 parts per million (PPM) or less, no carbon monoxide danger exists. Advise the occupants to check their detector per manufacturer recommendations, attempt to reset the detector, and call the fire department if it activates again.

10 PPM OR 35 PPM

If an atmospheric carbon monoxide concentration inside the affected area is found to be between 10 PPM and 35 PPM, then proceed as follows:

- Attempt to identify the cause of the carbon monoxide condition.
- If gas appliances are present, have Emergency Communications notify Virginia Natural Gas (VNG) to respond in reference to elevated carbon monoxide levels at the scene.

36 PPM OR MORE

If an atmospheric carbon monoxide concentration inside the affected area exceeds 35 PPM, then proceed as follows:

- All occupants and fire department personnel shall evacuate the affected area.
- If gas appliances are present, have dispatch notify VNG to respond due to a potentially dangerous level of carbon monoxide at the scene.

- Fire Department personnel shall re-enter the affected area to ventilate and attempt to identify the cause of the carbon monoxide condition. FIRE DEPARTMENT PERSONNEL SHALL WEAR FULL PROTECTIVE CLOTHING/EQUIPMENT AND SCBA.
- Occupants shall not be allowed to re-enter the affected area until the carbon monoxide concentration level is below 36 PPM.

MAINTENANCE OF CARBON MONOXIDE MONITORING DEVICE

Carbon monoxide-monitoring devices should be operated in accordance with manufacturer's operating instructions.

- Four-gas monitors are the larger CO monitoring devices located at Stations 1 & 2 in the communication rooms.
- Mini-CO monitors are the smaller CO monitoring devices located on the Rescue Truck.

Carbon monoxide monitoring devices are calibrated once a month and after repair or replacement of parts.