

# Smithfield Volunteer Fire Department

## STANDARD OPERATING PROCEDURE

SECTION  
300.02

### CARBON MONOXIDE RESPONSES

REVISION  
A

#### **POLICY:**

To provide a comprehensive approach in the actions taken by emergency response personnel in dealing with responses to carbon monoxide detector activations or areas suspected to have carbon monoxide.

#### **SCOPE OF OPERATION:**

Carbon monoxide is a colorless, odorless, tasteless gas that is the leading cause of death from poisoning in the U.S. It is a byproduct of combustion that occurs in any fuel-burning appliances or heating devices that run on a combustible fuel. Exposure to carbon monoxide can cause a variety of symptoms such as feeling weak and dizzy, headaches that may throb, nausea or vomiting, abdominal pain, impaired vision, respiratory failure, or death. Carbon monoxide is also accumulative which means that the effects can be caused by multiple exposures, even to small doses.

The purpose of this procedure is to provide guidance in the recognition of circumstances that may be carbon monoxide related, provide guidance in protection for emergency responders and people affected, and provide an action plan for dealing with either actual or suspected carbon monoxide related incidents.

Because carbon monoxide is not recognized by either sight, smell, or taste, recognition begins with suspicion. Responding to a CO detector activation is one reason to be suspicious. Areas with fuel burning appliances or heating devices should cause suspicion, especially if anyone is experiencing symptoms of carbon monoxide poisoning. Areas where either a fire is in progress or has occurred should likewise cause suspicion. Symptoms of carbon monoxide poisoning should cause suspicion especially if more than one person in the area is affected. Verification of the presence or the amount of carbon monoxide can only be done with a sensing device specific to carbon monoxide.

#### **SYMPTOMS OF CARBON MONOXIDE POISONING:**

Be aware that the symptoms of CO poisoning are similar to those of the flu.

##### **Low level exposures:**

- Weakness
- Dizziness
- Headache (primarily in the front of the head)
- Nausea or vomiting
- Shortness of breath

##### **High levels of exposure:**

- Abdominal pain
- Diarrhea and impaired vision
- May appear irritable

- May appear intoxicated and exhibit impaired judgement

**Extreme levels of exposure:**

- Loss of bowel or bladder control
- Convulsions or seizures
- Respiratory failure and unconsciousness
- DEATH

**RESPONSE:**

Upon alarm for response for a CO detector activation, all available personnel will report to the firehouse. A minimum of four (4) personnel will be required respond the apparatus identified in SOP 5.1 or as otherwise directed by a chief officer of the Department. Once the apparatus is en route, the person assuming responsibility for the incident will notify the dispatcher via radio that the apparatus is en route to the incident and all other responding personnel can disregard the call.

The apparatus is to abide by the standard driving laws of the Commonwealth of Virginia in response to CO detector activations. The apparatus is to respond in a “non-emergency mode” without the use of warning devices or any privileges granted to emergency vehicles in response to an emergency incident.

Should the dispatcher indicate that the caller has provided information that persons are complaining of the signs and symptoms of CO poisoning, emergency response is warranted. Additionally, a full response of the Department is required. The senior person responding on the apparatus shall also be required to indicate to the dispatcher the need for the Rescue Squad to be dispatched to the incident.

**ON SCENE:**

Upon arrival at the incident, question occupants for signs or symptoms of carbon monoxide poisoning. If any signs or symptoms are present, emergency personnel entering the occupancy shall utilize SCBA.

With the use of the CO monitor, perform the following task:

1. Perform fresh air setup.
2. Take initial sampling at the point of entry.
3. Use sampling to determine if use of SBA is required. (CO reading greater than 35ppm)
4. Record sampling readings of different areas.
5. Use these readings to assist in the determination of the source.
6. Isolate the source if at all possible.

**OCCUPANTS:**

The safety and welfare of the occupants is of paramount importance. If there are any signs that CO is present, the occupants should be removed from the environment. Medical treatment and transport to a primary care facility shall be suggested. Always keep the occupants informed of the steps and measures you are taking. Notify the occupants of your findings. If CO is detected and the source can not be found, the occupant should be advised not to re-enter the building.

Review the **Notice of Findings** form with the occupant and have them sign the form after it has been explained to them. The occupant is to receive the white copy, and the second copy is retained and attached to the Department's copy of the VFIR form.

**UNDER CONTROL:**

The incident is considered under control after the source of the CO is located and isolated or the fuel source(s) isolated and then purged with fresh air.

**NOTIFICATIONS:**

When the source can not be positively identified and the CO levels are 100 ppm or greater, the Superintendent of Inspections is to be notified and the building is to be declared "*unsafe for human occupancy.*"

The owner shall be advised to contact the Superintendent of Inspections after the source of the CO has been identified by a third party and after repairs have been made. At the discrepancy of the Superintendent of Inspections, a certificate of occupancy will be issued.

The gas utility company is to be notified when their product is involved.

# Smithfield Volunteer Fire Department

## STANDARD OPERATING PROCEDURE

SECTION  
300.01

RESPONSE TO HAZARDOUS MATERIALS INCIDENTS

REVISION  
A

### I. Scope

The purpose of this directive is to establish a general response policy for hazardous materials incidents.

### II. General

- A. Under the authority of the State of Virginia, the Fire Chief is obligated to provide on-scene response to certain hazardous materials releases and potential releases in the Town of Smithfield and portions of Isle of Wight County.
- B. The functions of the fire department, under the authority of the Fire Chief, carries out several functions:
  - 1. Conducting contingency planning for response to hazardous materials incidents.
  - 2. Conducting traditional fire department response measures such as restricting access to affected areas; notifying/evacuating areas and persons threatened by releases; coordinating with local, State, and Federal agencies; and assisting as resources as capabilities permit.
  - 3. Conducting preliminary assessment of incidents to:
    - a. Evaluate the magnitude of the threat to the public health and welfare and the environment;
    - b. Determine if response action by the spiller or other responsible party is adequate;
    - c. Establish jurisdiction for possible local, State, and Federal response;
    - d. Collect the data necessary to formulate a response plan if an offensive operation is warranted.
  - 4. Contacting the owner and/or operator of the source of the release, if known, to inform them of their potential liability for removal or cleanup cost; to explain the departments role in the response; and to gather information for response and safety purposes.
  - 5. Based on the findings of the preliminary assessment, carry out immediate mitigation actions if the situation warrants. Immediate mitigation actions are those response actions taken to contain or confine prior to the arrival of cleanup contractors or actions by the responsible party.

### III. Operations

- A. Approach the incident from upwind and / or uphill, if possible;
- B. Stay clear of any spilled material, vapors, fumes, and smoke;
- C. Identify the material:
  - 1. use the placard
  - 2. use the four (4) digit UN number on the placard or label
  - 3. Check the shipping papers for material name or type
- D. Use the DOT guidebook to look up response information on identified product;
- E. Have member making identification of product **S P E L L** out the product name exactly as it appears;

- F. Follow the DOT guidelines for handling of the emergency.
- G. Ensure that the State Department of Emergency Services is notified as soon as possible. This applies to ANY RELEASE OF ANY SIZE. The local Hazardous Material Officer (HMO) will determine if response is required.
- H. Ensure that any medical personnel are aware of any related hazard. Also, ensure that any affected medical facility receives the same information. Additional information is available on the following pages and should be utilized.