



# NORTHAMPTON COUNTY

## Department of EMERGENCY MEDICAL SERVICES



### STANDARD OPERATING GUIDELINES

TOPIC: <b>Carbon Monoxide Gas Monitor</b>	SOG #:
Status: <b>ACTIVE</b>	Written: 6/25/2016
Written by: TJ Rippon	Revised: 8/3/2016
Approved by: Hollye B. Carpenter	Adopted: 07/01/2016

#### PURPOSE

This Operating Procedures establishes an added safety measure for EMS personnel operating on medical calls. It also establishes guidelines for the use of Drager Pac 5500 Carbon Monoxide Monitor which have been placed on each unit's Jump Bag.

#### SCOPE

Northampton County Department of EMS will monitor air quality for all personnel, patients, and bystanders while operating at an emergency scene. It is important for all personnel to understand the procedures for monitoring air quality while operating at an emergency scene.

#### RESPONSIBILITIES

1. The HAZMAT officer will ensure that this SOG and equipment are implemented as outlined
2. Shift Captain(s) will ensure that all procedures are carried out by personnel.
3. All personnel are responsible for following the proper safety procedures outlined in this SOG

#### PROCEDURES

1. The Drager Pac 5500 CO Monitor is fastened to the EMS Unit's "Jump Bag"
2. The monitor will be placed in the "ON" mode and remain in the "ON" position at all times.
3. The Drager Pac 5500 CO Monitor will not be removed from the Jump Bag unless it is determined to be non-operational by the HAZMAT Officer.
4. There are 2 alarm levels assigned.
  - a. "A1" indicates a low end alarm reading 10-34 ppm. Personnel should exit the area as soon as possible
  - b. "A2" indicates a high level alarm reading 35ppm and higher. Personnel should exit the premises immediately.
5. If the Drager Pac 5500 CO Monitor activates inside of an **occupied structure** (ie...Residence, Office Building, or Restaurant) during a medical call, the following shall apply:
  - a. Ensure that the activation is not being caused by the crew's situation (ie...exhaust from running vehicle, in the building or at an open door)
  - b. The EMS Crew and any patients or bystanders shall exit the structure as safely as possible. The crew will be mindful of the patient's current medical complaint and condition.



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- c. The EMS Crew should immediately contact Dispatch and request Fire Department Response to investigate. After personnel and patients exit the building there should not be a re-entry by NCEMS Personnel –it is now a Fire Department scene.
- d. Personnel will notify the On Duty Captain/Supervisor immediately when there is an activation.
6. The carbon monoxide readings at the time of activation, should be documented on the Patient Care Report.
  - a. If the Lifepak on the unit is capable-the CO Probe should be used to assess the patient.
  - b. If CO Probe readings are performed, that also shall be recorded in the Patient Care Report.
7. The Drager Pac 5500 CO Monitors will be inspected during the months of January and July by the HAZMAT Officer.

#### **GAS MONITORING INFORMATION**

Carbon Monoxide (CO) is a colorless, odorless, and toxic gas, which is produced by incomplete combustion of carbon-containing materials. Examples include vehicle exhausts, gasoline and diesel engines, portable gasoline powered generators, fire places, charcoal grills, propane powered heaters, and kerosene heaters.

Exposure to carbon monoxide impedes the blood's ability to carry oxygen to body tissues and vital organs. Hemoglobin's binding affinity for carbon monoxide is 300 times greater than its affinity for oxygen. As a result, small amounts of carbon monoxide can dramatically reduce hemoglobin's ability to transport oxygen.

Common symptoms of carbon monoxide exposure can include headache, nausea, rapid breathing, weakness, exhaustion, dizziness, and confusion. Hypoxia may also occur resulting in neurological and cardiac effects-which are late symptoms. Cardiac patients, infants, small children, pregnant women, and the elderly are particularly susceptible to the effects of carbon monoxide exposure.