

# SOUTH PORTLAND FIRE DEPARTMENT

## STANDARD OPERATING GUIDELINES

<b>SOG #:</b>	6.315	<b>Effective Date:</b>	1/20/2013
<b>Title:</b>	Post Structure Fire Air Monitoring	<b># of pages:</b>	2
<b>Category:</b>	Safety	<b>Classification:</b>	Red

1. **PURPOSE:** To establish a guideline for monitoring air quality post structure fire suppression activities to determine if respiratory protection is required.

2. **PROCEDURES:**

- This includes any fire where SCBA was worn, examples are (but not limited to):
  - Structure Fires
  - Vehicle Fires
  - Dumpster Fires
  - Ship/Vessel Fires
- When the fire has been extinguished and ventilation has been completed so visibility is not impaired, the incident commander may request to have the atmosphere monitored for air quality levels. These levels will need to meet safe operational limits per OSHA standards.
- A Honeywell Gas Meter and a RAE HCN meter will be used in all areas where crews will be operating.
- For respiratory protection to be removed,, all criteria below must be met.
  - CO – Must be less than 35 ppm (parts per million) or below.
  - HCN – 0 (ppm)
  - Oxygen – Greater than 19.5%, but less than 23 %
- All readings and actions must be documented.

**Equipment:**

- Full protective clothing and self contained breathing apparatus
- RAE HCN Meter
- Honeywell PhD6 Gas Meter

**Considerations:**

- At no time does this SOG require an individual not to use breathing protection.
- At any time the incident commander or safety officer may still require personnel to wear breathing protection, despite the air quality levels obtained.
- Consistent with OSHA (Short Term Exposure Limits), if the HCN reading is less than 4.7 ppm, a member may be in the structure for less than 15 minutes without respiratory protection with the approval of the incident commander or the safety officer provided they are working within the accountability system.
- If the oxygen levels are less than 20.9%, it is advisable to determine why the levels are low as something must be displacing the oxygen.

3. **REFERENCES:**

- Gorham Fire Department, SOP, (Post Structure Fire Air Monitoring) “Fire Ground Operations.
- CDC (Hydrogen Cyanide Emergency Response Card (NIOSH) – ERC74-90-8  
[Http://www.bt.cdc.gov/agent/cyanide/erc74-90-8pr.asp](http://www.bt.cdc.gov/agent/cyanide/erc74-90-8pr.asp)

By Order Of:

*Kevin W Guimond*

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