

Beaumont Fire-Rescue Services

PERFORMANCE BENCHMARKS

406.020

Inspecting & Operating Gas Monitoring Equipment

Discipline: Hazmat – Operations Level

Effective: 3/5/2011

Revised:

Replaces:

Anne Huff, Fire Chief

I. Objective

Given examples of various monitoring equipment, the operations level responder shall identify inspection procedures and demonstrate the operation, limitations, and field maintenance/testing procedures for the type listed.

II. Instructions – Procedures for Achieving the Objective

You will be given four gas monitoring instruments. You will demonstrate the procedures for calibrating the instruments or verifying their calibration. You will begin on my instruction to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

III. Examiner's Note

The operations level responder will not be allowed to review the performance steps at the time of testing.

IV. Preparation & Equipment

- A. Gas monitoring instruments:
 - 1. % LEL
 - 2. % O²
 - 3. PPM H²S
 - 4. PPM CO
- B. Equipment to calibrate or verify calibration

V. Reference Sources

- A. TCFP Section 603-2.03, 603-2.04, and 603-2.06 Performance Standards
- B. NFPA 472, 6.2.1.3(C), 6.2.1.3(D), 6.2.1.3(F)

PB 406.02O – Inspecting & Operating Gas Monitoring Equipment

Discipline: Hazardous Materials-Operations Level

Name:	Officer #:
Evaluator:	Officer #:
Date:	Location:

The Operations Level Responder shall: *(No partial points given)*

A. Identifies:

1. Monitoring capabilities of particular instrument.....P/F _____
2. Identifies inspection procedures.....P/F _____

B. Identifies Limitations:

1. High humidityP/F _____
2. Aspiration of liquid into sensorsP/F _____
3. Insufficient level of O²P/F _____
4. Extremely high or low temperaturesP/F _____
5. Corrosive atmospheresP/F _____
6. Electronic interferenceP/F _____
7. Sensor poisoning by heavy metals, silicones, silicates, and some sulfur compoundsP/F _____
8. Interference gassesP/F _____

C. Performs Calibration Procedures:

1. Identifies proper calibration gas for particular instrument (pentane/methane/hexane, etc.)P/F _____
2. Turns monitor onP/F _____
3. Identifies any problems during warm upP/F _____
4. Allows monitor sufficient time to warm upP/F _____
5. Sets monitor to "Calibration Mode"P/F _____
6. Applies correct calibration gasP/F _____
7. Removes calibration gas when monitor is calibratedP/F _____
8. Begins sensing or turns monitor offP/F _____

D. Identifies Limitations:

1. High humidityP/F _____
2. Aspiration of liquid into sensorsP/F _____
3. Insufficient level of O²P/F _____
4. Extremely high or low temperaturesP/F _____
5. Corrosive atmospheresP/F _____

- 6. Electronic interferenceP/F _____
- 7. Sensor poisoning by heavy metals, silicones, silicates,
and some sulfur compoundsP/F _____
- 8. Interference gassesP/F _____

E. Operates Instrument:

- 1. Turns monitor onP/F _____
- 2. Identifies any problems during warm upP/F _____
- 3. Allows monitor sufficient time to warm upP/F _____
- 4. Begins sensingP/F _____
- 5. Turns monitor offP/F _____

Points Possible	Passing Score	Attempt	Performance Rating (Points)	PASS	FAIL
P/F	P/F	First			
		Second			
		Third			