

PERFORMANCE BENCHMARKS

406.03B

Sampling and Monitoring/Surveying Equipment

Discipline: Hazmat – Technician Level

Effective: 7/5/2011

Revised:

Replaces:

Anne Huff, Fire Chief

I. Objective

Given three hazardous materials/WMD, one of which is a solid, one a liquid, and one a gas, and using the following monitoring equipment, test strips, and reagents, the hazardous materials technician shall select from the following equipment and demonstrate the correct techniques to identify the hazards (Corrosivity, flammability, oxidation potential, oxygen deficiency, radioactivity, toxicity, and pathogenicity):

- A. Carbon monoxide meter
- B. Colorimetric tubes
- C. Combustible gas indicator
- D. Oxygen meter
- E. Passive dosimeters
- F. pH indicators and pH meters
- G. Photo-ionization and flame ionization detectors
- H. Radiation detection instruments
- I. Reagents
- J. Test strips
- K. WMD detectors (chemical and biological)
- L. Other equipment provided by the AHJ

The hazardous materials technician shall demonstrate methods for collecting samples of the following:

- A. Gas
- B. Liquid
- C. Solid

II. Instructions – Procedures for Achieving the Objective

Given a solid, a liquid, and a gas, you will demonstrate the appropriate method for collecting a sample for evaluation. You will select the appropriate type of monitoring equipment to classify or identify the material by using the instruments, reagents and test strips as provided by the AHJ. *(Example: if a sample is a liquid and has a pH of 2, it would be an acid. If it also had a LEL of 12%, it would also be a flammable liquid).* 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 hazardous materials technician will not be allowed to review the performance steps at the time of testing.

IV. Preparation & Equipment

- A. Carbon monoxide meter*
- B. Oxygen meter*
- C. Combustible gas indicator*
- D. Gas specific meters (AHJ)
- E. Photo-ionization detector
- F. Colorimetric tubes and pump
- G. pH paper or electronic pH meter
- H. Radiation detection instruments
- I. Reagents (AHJ)
- J. Test strips (AHJ)
- K. Other monitoring detection equipment as provided by AHJ
- L. Samples of hazardous materials (liquids, gases, and solids)
- M. Sampling equipment (i.e. pipettes, spatulas, jars, vials, etc.)

**These can be single gas monitors or multi-gas monitors.*

V. Reference Sources

See Reference Sources in PB 406.03A.

PB 406.03B – Sampling & Monitoring/Surveying Equipment
Discipline: Hazardous Materials

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

The Haz Mat Technician shall: (No partial points given)

SAMPLE #1 (Liquid)

- A. Approximately collect sample of material P/F _____
- B. Choose the correct instrument or instruments to survey/test the sample. List instrument chosen: _____ P/F _____
- C. Correctly classifies and/or identifies and quantifies the sample.
 Classification/identification of sample: _____ P/F _____
 Quantified results: _____ P/F _____

SAMPLE # 2 (Solid)

- A. Approximately collect sample of material.....P/F _____
- B. Choose the correct instrument or instruments to survey/test the sample.
 List instrument(s) chosen: _____ P/F _____
- C. Correctly classifies and/or identifies and quantifies the sample.
 Classification/identification of sample: _____ P/F _____
 Quantified results: _____ P/F _____

SAMPLE # 3 (Gas)

- A. Appropriately collect sample of material P/F _____
- B. Choose the correct instrument or instrument to survey/test the sample. List instrument(s) chosen: _____ P/F _____
- C. Correctly classifies and/or identifies and quantifies the sample.
 Classification/identification of sample: _____ P/F _____
 Quantified results: _____ P/F _____

Time Allocation

Completes skill in allotted time P/F _____

Allotted time for this skill: _____ minutes _____ seconds

Actual time: _____ minutes _____ seconds

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