



Hazardous Materials Technician Certification

Skill # 2.1 Monitoring Equipment: Dräger Pump and Colormetric Tubes

Maximum Time Allowed: **15 min.**

INSTRUCTIONS TO THE CANDIDATE

The Candidate, when given a vapor or gas sample and product documentation, and selection of calorimetric tubes, shall select the appropriate tube, and demonstrate the proper technique to identify and quantify the material.

CANDIDATE PERFORMANCE	1 st Attempt		2 nd Attempt	
	Yes	No	Yes	No
	◆ Candidate has informed the evaluator that they have been trained in this skill.			
Using the reference manual, the candidate selects the proper colormetric tube for sampling.				
◆ Using the selected tube, the student performs a one minute "field test" on the hand pump.				
With an unbroken tube in the pump, the bellows should be compressed completely. The pump should remain compressed for one minute.				
Candidate resets the counter. (May use the tip of the tube)				
Candidate properly breaks the tips off of each end of the tube using either the ceramic edge on the bottom of the hand pump, scoring board, or tube score/breaker.				
Candidate inserts the tube into the hand pump in the proper direction (arrow on the tube pointing toward the pump).				
Candidate holds the tip of the tube 1-2 inches away from the sample product or container opening.				
Candidate properly grips and fully compresses the pump and waits for the bellows to fully re-inflate.				
◆ Does not aspirate any liquid.				
There is an indicator on the top of the pump which turns white when the bellows is fully inflated.				
Candidate pumps the bellows until the appropriate color change, the proper number of times based on the reference manual or N=number of strokes.				
Candidate removes the tube from the pump and compares the tube to the picture in the manual to ensure proper color change. Reports the measurement to the evaluator. (There may be a several minute waiting period for the tube to change completely. This is based on the tube and sample.)				
After sampling, the candidate must clear the bellows by pumping it at least three times in clean air without a tube.				
Total steps candidate must complete to pass:	9	Total		

◆ **Critical Step** - Failure on this step results in failure of the entire skill.

Candidate Name _____

1st Evaluator Signature _____ Date _____

2nd Evaluator Signature _____ Date _____



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Objective(s): 7.2.1.3.3(7), 7.2.1.3.4(3), 7.2.1.3.5(2), 7.2.1.3.6 NFPA Standard 472 2008 Edition

INSTRUCTIONS TO THE PROCTOR/EVALUATOR

1. The candidate must indicate that they have been instructed how to perform this skill. A negative answer is an immediate failure. No second attempt is allowed. This step doesn't count for the total number of steps the candidate must complete.
2. Evaluator or support staff must prepare a sample chemical to be used as a "control."
3. The proctor must provide the candidate with the following items:
 - a. Dräger Kit or Colormetric hand pump .
 - b. Minimum of three (3) assorted unused Colormetric tubes.
 - c. Colormetric reference manual or guide sheet.

Proctor/Candidate Comments

I was informed of the task steps missed that resulted in the failure of this skill and the OSU-FST re-test policies.

Candidate Signature

Date