

The Practical Skills Assessment should be the easiest part of the competency assessment required to qualify you as a Registered Operator of a 4-Gas Meter and PID, however it can also produce a great deal of anxiety since it is unclear what you will be asked to do. The simplest way to describe the overall philosophy of the Practical Skills Assessment is that you shall demonstrate your in-depth knowledge of the specific monitor that you use. The registry was developed because of the general lack of understanding that users of four gas monitors had and this lack of understanding created a false sense of security to the user and potentially placed individuals in harm's way. Therefore, the best way to prepare for the practicum is: to know your equipment inside and out; to have a thorough understanding of the contents of the user manual; and to be able to use the manufacturer's correction tables to quantify various gases. You need to understand what the meter can and cannot measure, the acceptable environmental conditions for use, its limitations, and what it measures.

The applicant may be assessed on the following skill sets and knowledge of their instrument and should be prepared to demonstrate or explain (Note: Some instruments do not have the capability and need for some of these items or skills):

- ✦ Turning on the instrument;
- ✦ Calibrating the instrument;
- ✦ The manufacturer's recommendation for calibration frequency;
- ✦ Choosing the proper calibration gas;
- ✦ Modifying the Span Value when calibrating with other calibration gases;
- ✦ Changing LEL/VOC Span Gas when you change the calibration gas from methane (LEL) & isobutylene (VOC);
- ✦ The instruments sensors;
- ✦ Replacing sensors;
- ✦ Explain what the OSHA permissible exposure limits are for each of your sensors;
- ✦ What can cause each of the sensors to show inaccurate values (other than age);
- ✦ What is the smallest change in a measured value that the instrument can detect;
- ✦ Charcoal filter replacement on the carbon monoxide sensor if present in your instrument;
- ✦ The capabilities and limiting factors associated with your piece of equipment;
- ✦ Sensor range, resolution, and response time for the sensors in your instrument;
- ✦ The intrinsically safe class, division, group and temperature code of your instrument;
- ✦ The locations and situations where you intrinsically safe instrument may be used;
- ✦ What can cause your PID to show values that are less than the true value (other than age) as you demonstrate the proper method of its cleaning and replacement;
- ✦ How to ensure that the instrument is functioning properly prior to use;
- ✦ Replacement of the external filter;
- ✦ Demonstrate how to ensure that your equipment is properly working one-week after calibration;
- ✦ Explain the implication of sampling through tubing for your instrument;
- ✦ Warm-up time requirement;
- ✦ Fresh air set-up;
- ✦ Approximately the temperature range of your instrument;
- ✦ Approximately the humidity range of your instrument;
- ✦ How to display data logging;
- ✦ How to display the peak value;
- ✦ How to display the minimum value;
- ✦ How to display the STEL value;
- ✦ How to display the TWA value;
- ✦ Why do you have the sensor alarms set where they are?
- ✦ How to display the Battery Voltage value;
- ✦ The normal full charge voltage for the battery;
- ✦ The shutdown voltage for the battery;
- ✦ The duration that your instrument will operate given a fully charged battery;
- ✦ How to see the internal temperature display;
- ✦ How to display the calibration gas for LEL and its display units;
- ✦ How to display the calibration gas for PID and its display units;
- ✦ How your instrument indicates that the PID has exceeded the predetermined upper threshold value default and explain the audible and visible alarms;
- ✦ What is the photon energy of your lamp;
- ✦ How does the photon energy of the lamp affect your ability to detect various chemicals;
- ✦ How your instrument indicates that the Oxygen sensor is reading less than 19.5% and explain the audible and visible alarms;
- ✦ What are the STEL values for the toxics your instrument measures and what does STEL mean;
- ✦ How your instrument informs you that the STEL was exceeded (audible and visible alarms);
- ✦ What are the TWA values for the toxics your instrument measures and what TWA means;
- ✦ How your instrument informs you that have exceeded the TWA and explain the audible and visible alarms;
- ✦ How your instrument informs you that the ceiling was exceeded (audible and visible alarms);
- ✦ How your instrument informs you that LEL sensor has been over exposed;
- ✦ What are the LEL measurement units;
- ✦ How your instrument informs you that the VOC sensor has drifted negative (below zero);
- ✦ How your instrument informs you that the pump has stopped;
- ✦ How your instrument informs you that the battery voltage has dropped below X.XX V and will shut down;
- ✦ Describe the sampling strategy prior to entering a sewer manhole that is 12 feet deep and has a "pic hole" (the small hole on the cover that is used to remove it with the use of a pick) ; and
- ✦ Explain how cross sensitivities affect your instrument.