

How often do I need to calibrate my gas monitor?

This is a controversial subject. OSHA would prefer you calibrate your gas detector before each use. Because this is not feasible for all companies, some of whom have hundreds of monitors, OSHA allows certain accommodations.

In general, customers who use their gas monitors infrequently, say once a month, should calibrate their monitors every time they use them. A full calibration is the best way to insure the unit will function as it should.

Companies using their detection devices regularly, several times a week for instance, have told us they bump test regularly and calibrate less often. This is consistent with information from the president of RKI Instruments, a gas detection manufacturer. He writes in an article for the National Safety Council that the calibration cycle can be extended to “three to six months for instruments that successfully pass the bump gas test.”

Companies who frequently use their gas monitors must bump test before each use to make sure the monitors are reacting to the target gas(es). Bump testing involves subjecting monitors to calibration gas to make sure the sensors register appropriately and take the unit into alarm.

On the topic of calibration, regulatory agencies such as OSHA and ANSI advise users to follow the manufacturer’s recommendations for calibration. However even these instructions can be confusing. For instance, one manufacturer has a 4-gas monitor that provides an on-screen calibration countdown from 180 days. However, the same company makes a single-gas monitor which is supposed to be self-calibrating and last for two years. Both the 4-gas and the single-gas monitors use the same sensors.

Add to this discussion the legal implications of the data. For readings to hold up in court as incontrovertible a monitor must calibrate both before and after each test or series of tests, as this is the only way to remove doubt as to the proper functioning of the instrument.

To create an environment of safety, it’s important to develop a routine for testing your equipment that your own safety team determines to be adequate for the protection of your workers, and make sure those standards are followed by everyone who uses a gas detector unit.

A final caution – a bump test or calibration is highly recommended if an instrument has been potentially damaged or subjected to a severe condition such as high gas concentrations, very high temperatures, drop, or shock.

