

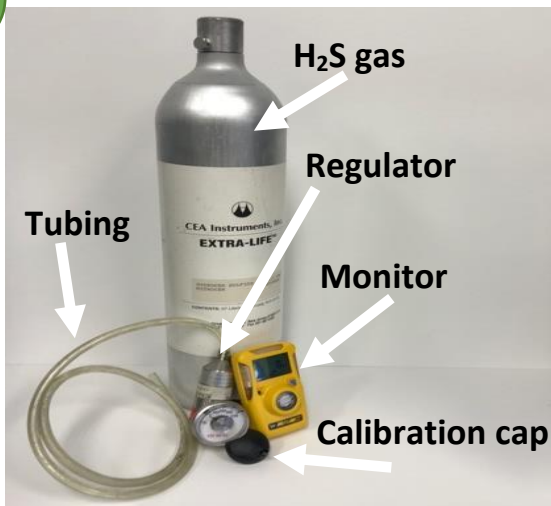
Hydrogen Sulfide (H₂S) Monitor Bump Test:

for BW Clip Real Time* with calibration gas and regulator

Why Use A Monitor?

Hydrogen sulfide (H₂S) gas is released from manure when agitating, pumping manure, and when power washing inside a livestock building. Concentrations above *100 ppm are immediately dangerous to life and health*. An inexpensive monitor that alerts you before H₂S concentrations become lethal. It is important to test its response before you rely on it to save your life. To make sure your equipment will warn you of the danger of this gas, plan to *check your monitor* 2 weeks before manure pumping or other high-risk activity: This gives you time to get a replacement if you need one. Then, perform this check again **at the start of every day you use the monitor**, to be safe. If the monitor fails the bump test check to make sure all connections are tight, then complete the bump test again. If the monitor fails the bump test a second time, it will need to be replaced.

1



You will need:

- H₂S calibration gas: 25 ppm
- Regulator: 0.5 liter per minute
- Monitor
- Tubing
- Calibration cap

2



- Attach regulator to the H₂S cylinder
- Attach tubing to regulator
- Attach other end of tubing to calibration cap

***BW Clip Real Time** displays concentration; **BW Clip** does not (only displays months of life remaining)

This guidance was developed by the faculty and students from the University of Iowa Industrial Hygiene Program

3



- Attach the calibration cap to the monitor
- Check to see there are no warnings on the monitor's screen

4



- *Open* the regulator valve (listen for gas flowing)
- Watch the monitor screen
- Confirm the concentration is going up

5



- Confirm alarms at **10 ppm**: audible, visual, and vibrating
- Confirm alarms at **15 ppm**: speed of each alarm will increase
- *Close* the regulator valve
- Remove calibration cap

6



Do not use monitor if:

- Alarms do not go off
- Concentration does *not match the calibration gas* (25 ppm)
- Takes *longer than 60 seconds* to reach target concentration (25 ppm)