

ATMOSPHERIC TESTING QUICK REFERENCE

POST NEAR TESTING EQUIPMENT — TEST BEFORE ENTRY AND CONTINUOUSLY DURING

TEST IN THIS ORDER — EVERY TIME

STEP 1 — TEST FIRST

Oxygen (O₂)

**Safe range:
19.5% – 23.5%**

- Combustible gas meters won't read accurately in O₂-deficient atmospheres — always test O₂ first

STEP 2 — TEST SECOND

Combustible Gas (LEL)

**Safe range:
Below 10% LEL**

- At or above 10% LEL = hazardous atmosphere
- Do not enter. If inside, exit — then ventilate and retest

STEP 3 — TEST LAST

Toxic Gases

**Safe range:
Per SDS /
OSHA PELs**

- Common in tank environments: H₂S (TLV 1ppm / IDLH 100ppm), CO (TLV 25ppm / IDLH 1200ppm)
- Sensor must be rated for this tank's products. Check SDS if prior load is unknown.

*Review SDS if prior load or product is unknown

TESTING STRATIFIED ATMOSPHERES (OSHA 1910.146 APPENDIX B)

Test every 4 feet as you descend. Don't descend faster than you can confirm safe atmosphere. Vapors pool at low points — a clean reading at the top does not mean the bottom is safe.

IF AN ALARM ACTIVATES

ALARM ACTIVATES = EXIT IMMEDIATELY.

Do not silence and proceed. Do not wait to see if it clears.

EQUIPMENT CHECKS — BEFORE EVERY USE

- Bump test before every entry — document the result.
- Failed bump test = do not use the monitor.
- Expired calibration = equipment is grounded until recalibrated.

CONTINUOUS MONITORING

- Entrant wears a personal monitor throughout — not just carries one
- Conditions change during work — monitor continuously, not just at entry
- Ventilation must be verified with follow-up readings, not assumed from airflow alone