

Atmospheric Testing – Permit Required Confined Space Entries

Todd Drew, RS
Employee Safety
Menasha Health Department

Confined Space Definition

A confined space is defined as a space that is large enough to enter and perform an assigned task. The space is limited or restricted to entry and/or exit. Space is not designed or intended for normal occupancy by a worker.

Confined Space Evaluation Testing

The atmosphere within a confined space must be monitored using equipment designed for that purpose. Equipment will be equipped and intended to test chemicals/conditions that may be present in that particular space. All confined spaces must be assumed to be “layered” spaces. Layered spaces require a separate reading for all parameters every 4 feet in the vertical descent.

Permitted Confined Space

A permitted confined space is defined as a space that:

A confined space plus one of the following:

- ✓ Contains, or has the potential to contain a hazardous atmosphere. (All confined space entries SHALL be considered “permit required”
- ✓ Contains material with the potential for engulfment
- ✓ Has an internal design that could entrap or asphyxiate the entrant.
- ✓ Contains a recognized safety or health hazard

Sampling Method

- Take 4 gas meter and back-up to site.
- Turn unit on and conduct all required calibration steps for the unit
- Sample and record the readings for each 4 vertical feet of the entry. Include 4 feet above the entry opening.
- Re-sample periodically throughout the entry.

All sampling must be recorded on the entry permit form.

Atmospheric Hazards

- Oxygen – an atmospheric concentration less than 19.5% or greater than 23.5% Oxygen.
- LEL in excess of 10%
- CO hazard begins at 35ppm which is the OSHA PEL
- H₂S (Hydrogen Sulfide) 10 ppm OSHA PEL
- Detection of any one of these levels requires atmospheric intervention and entry shall not occur until engineering controls reduce levels below these limits. **NO EXCEPTIONS TO THIS REQUIREMENT**

Questions

Contact Todd Drew at Menasha Health Department with any questions regarding this information or immediately if atmospheric conditions are detected in excess of any of the levels cited on the previous slide.

[Click Here](#) to submit that you have completed the Atmospheric Training.