

TOOL BOX TALKS

Confined Space Stratification

All confined spaces have the potential for developing a hazardous atmosphere. As part of the overall confined space hazard evaluation, trained personnel must reasonably expect that a confined space will have atmosphere concerns. Some gases layer in confined spaces. Some gather at the top of the space, while others gather in the middle or floor. This is called stratification. Remember stratification when doing atmosphere testing - the life-saving component of confined space entry procedures.

WORKSAFE TIPS

STRATIFICATION – LAYERING OF GASES IN A SPACE

GASES AT THE TOP

- Natural Gas
- Methane
- Also remember that HEAT can take contaminants to the top as well.

GASES IN THE MIDDLE

- Carbon monoxide
- Mixtures of gases in the top and bottom of the space

GASES AT THE BOTTOM

- Propane
- Chlorine
- Gasoline
- Hydrogen Sulfide
- Remember that cold air can cause toxic contaminants to stay at floor level. Cooler air sinks.

REMEMBER THE MNEMONIC:

Check OFTen:

Oxygen, Flammables, Toxics

CHECK FOR OXYGEN CONTENT:

- At least 19.5% and less than 23.5%

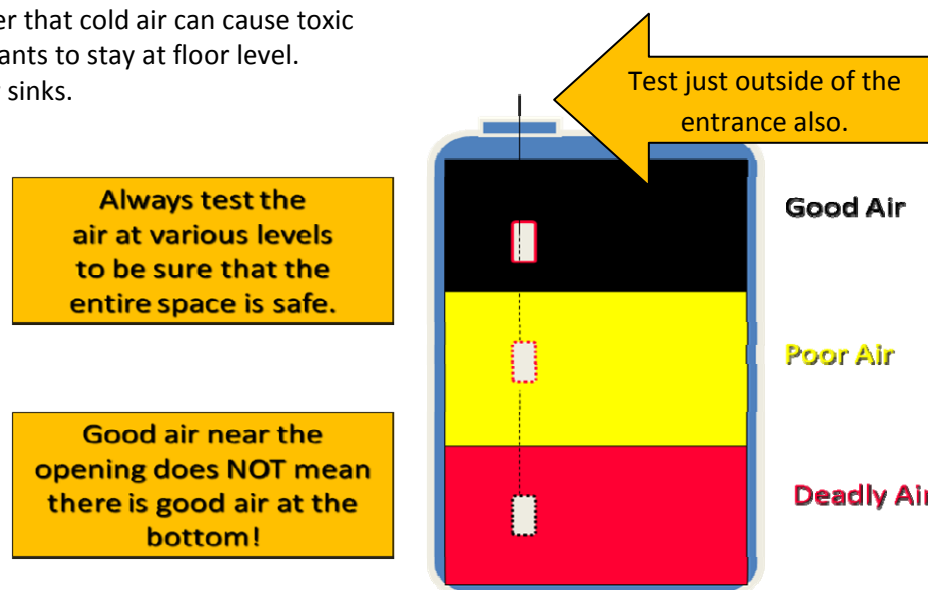
CHECK FOR FLAMMABLE:

- Less than 10% of the LEL

CHECK FOR TOXIC GASSES:

- Most commonly carbon monoxide (PEL <35 ppm) or any other hazardous materials as determined by the use of the space.

NOTICE! Any time a limit is exceeded, no matter what the reason, all personnel shall immediately exit the space, and no others shall enter until atmospheric conditions are returned to safe levels.





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