Safety Toolbox Talk: Confined Space

Introduction

Working in a confined space is one of the dangerous tasks you can face on a worksite. It's not just the size of the space, it's the unseen hazards lurking inside that make it so risks full. Think about oxygen-deficient atmospheres, toxic gases, and the simple fact that getting in and out can be difficult if things go wrong. That's why every time we have a job in a confined space, we need to treat it with the seriousness it deserves.

Confined Space

Control of work

Before anyone even considers stepping into a confined space, a **Permit to Work (PTW)** must be in place. This isn't just paperwork; it's your first layer of protection. The PTW clearly states what work will be done, by whom, and under what safety controls. It confirms that a risk assessment has been carried out, all hazards identified, and control measures implemented. No permit? No job. It's that simple.

Speaking of risk, every confined space job needs a detailed **Risk Assessment** tailored to the specific work being done. This assessment looks at potential hazards like the need of aLlock out Tag out, chance of oxygen levels, the risk of flammable gases being present, or the danger of toxic fumes. It also checks whether electrical tools/lights being used are safe for the environment, meaning **safe voltage equipment, no higher than 50V AC or 120V DC** to avoid electrical shocks in confined, often damp, spaces. The assessment sets out how we'll control these hazards, from **ventilation** to equipment selection and emergency arrangements.

Now, here's where things can get deadly in seconds: the atmosphere inside a confined space. Just because it looks harmless doesn't mean it's safe. Before anyone enters, and continuously while the work is ongoing, the air must be tested using a **calibrated multi-gas detector**. The readings we're looking for are:

- **Oxygen (O_2)**: exactly **20.9%**
- **Lower Explosive Limit (LEL)**: **0%**
- **Hydrogen Sulfide (H_2S)**: **0 ppm**
- **Carbon Monoxide (CO)**: **0 ppm**

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If any of these are off, you **do not enter**, no exceptions. If levels change while someone is inside, work stops immediately, and the area must be evacuated and ventilated.

Only **authorized, trained, and medically fit personnel** are allowed to enter a confined space. And no one ever works in a confined space alone. There must always be a **standby person (top man or manhole watch)** positioned outside the space, fully briefed and in constant communication with the team inside. Their job isn't just to watch, they keep track who are inside and working in which place. They also must be ready to raise the alarm if rescue is needed and are in no circumstances allowed to enter the confined space or leave while persons are still inside.

Speaking of rescue, every confined space job must have a **safe entry and rescue plan**. This means we have suitable **rescue equipment** on hand: a tripod and winch, harnesses, and breathing apparatus if required. The team must know exactly what to do in an emergency. It's no good working this out after something happens. That plan is reviewed before work starts, with every team member clear on their role.

In confined spaces, it's not usually the obvious hazards that get you, it's what you didn't check for, what you assumed was fine. That's why we approach every job as if our lives depend on it, because they do.

In closing, never shortcut safety in a confined space. Follow the control of work process, know your risk assessment, continuously test the air, and stick to the rescue plan. If something feels off, trust your instincts and stop the job. No deadline is worth a life.

Assess the Risk, Control the Task,

If It's Not Safe, Stop Work!