



ACCESSING SAFETY KNOWLEDGE (ASK) SHEET: *Confined Space – What is it?*

A **Confined Space** is one of the most dangerous working conditions. It is a confined area where potential hazards can exist that can cause injury or death to an Entrant by a variety of reasons. However, the most cause of death are from asphyxiation, incapacitation, falls, entrapment, and engulfment. Many of these spaces are known to have poor air quality and contain potentially hazardous atmospheres such as stale air resulting in very low oxygen levels or flammable gases that can be explosive or cause acute death due to the inhalation of poisonous gases. Hundreds of workers die every year while in confined spaces that should have been evaluated and identified as potentially harmful. Alarming 60% of the total fatalities are not the workers in the confined space but the rescuers that go in afterwards to try and save their co-workers.

The main reasons why people die in confined spaces are for: 1) Failing to recognize a confined space; 2) Failing to recognize the hazards; 3) Trusting the physical senses; 4) Under estimating the dangers; 5) Complacent attitudes; 6) Attempting to save a coworker.

The misconception about confined spaces is that people tend to trust their physical sense of sight, smell, hearing, taste and touch. Unfortunately, inside a confined space, it is not what you can see, smell, hear, taste or touch but what we cannot... that can kill in an instant.

OSHA defines a confined space as a space that must meet all three of the following characteristics:

1. A space large enough and so configured that an employee can bodily enter and perform assigned work;
2. Has limited or restricted means of entry and exit (*typically the way out is the same way you got in*);
3. Is NOT designed for continuous employee occupancy.

Keep in mind that “*bodily*” means any part of the body and “*entry*” means any part of the body that breaks the plane of entry. Entering a confined space is often necessary to perform various types of service, maintenance or repair work including underground utility work. Confined spaces come in various shapes and sizes and in some cases disguised in a way we would not even think could be classified as a confined space. The most obvious is a manhole as seem on the right... but they can also be crawl spaces, attics, basements, trenches, utility vaults, pits, wells, lift stations, tanks, vessels, hoppers, storage bins, mixers, digesters, dryers, etc.

All confined spaces MUST be evaluated for potential hazards, identified by signage, fill out a confined space permit indicating the space is safe for entry and authorizes work. The permit must describe the confined space location, the estimated duration of entry, the hazards found, the atmospheric levels, who the Entrant, Attendant and Entry Supervisor are and other required information.

Rule of thumb... if you have to open a hatch door where any part of your body can break the plane of entry and do work and the only way out is the same way you got in, and is not designed for you to be there other than to do what you have to do and get out, then it's probably a confined space. Don't take any chances at the expense of an employee's life... take the time to check out.

When dealing with a possible confined space, **ALWAYS** check the space for hazards that can injure, asphyxiate, entrap, engulf, or possibly incapacitate the employee to the point that could prevent him from self rescue. Classify the space as either a “*Permit Required*” or “*Non-Permit Required*” confined space. Always check the air before entering using a gas meter, use continuous forced air ventilation and air monitoring while Entrant is inside, post an “*Attendant*” outside the space to monitor Entrant, using an above ground retrieval system and post your Confined Space Entry Sign and Permit at the site.

It is highly important that employee assigned to perform this type of work be very well trained on the potential hazards of a confined spaces, air monitoring, permits, how to classify as *Permit* or *Non-Permit Required*, signs and symptoms of exposure, above ground rescue, first aid and CPR, how to use equipment, and use of respiratory equipment (if needed).

Confined spaces are dangerous. Don't take short cuts to save a dollar... it could cost you someone's life.

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