

OSHA Targets Tank Cleaning and other Confined Space Hazards



According to the Bureau of Labor and Statistics (BLS), from 2011 to 2018, 1,030 workers died from occupational injuries involving a confined space. Recently, in Orleans County, NY, a 19-year-old worker died while cleaning the inside of a tanker.

Confined spaces, such as manholes, crawl spaces, and tanks - are not designed for continuous occupancy and are difficult to exit in the event of an emergency. People working in confined spaces face life-threatening hazards including toxic substances, electrocutions, explosions, and asphyxiation.

Construction workers often perform tasks in confined spaces - work areas that (1) are large enough for an employee to enter, (2) have limited means of entry or exit, and (3) are not designed for continuous occupancy. These spaces can present physical and atmospheric hazards that can be prevented if addressed prior to entering the space to perform work.

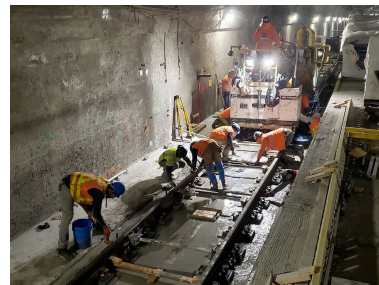
OSHA uses the term "permit-required confined space" (permit space) to describe a confined space that has one or more of the following characteristics: contains or has the potential to contain a hazardous atmosphere; contains material that has the potential to engulf an entrant; has walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant; or contains any other recognized safety or health hazard, such as unguarded machinery, exposed live wires, or heat stress.

Asphyxiation is a critical hazard associated with tank cleaning activities. When a worker enters a tank between uses in order to clean it, they risk exposure to toxic vapors from chemicals, decaying crops, or whatever other substance was in the tank. Asphyxiation is, however, not the only hazard. Apart from engulfing workers with fumes, these substances can cause explosions or fires.

Due to these hazards, a tank may be classified as a "permit-required" confined space under OSHA regulations, depending on the chemical makeup of the substances being transported, cleaning method, tank configuration, and other factors. Workers must have a permit in order to enter a permit-required confined space. They must also be trained on its potential hazards. OSHA regulations set forth a myriad of requirements for work in these confined spaces, including the identification of hazards, procedures for entering and exiting the spaces, monitoring for hazards, and the use of protective equipment. In addition, a rescue team is required prior to permit required confined space entry.

OSHA has created a Confined Space In Construction webpage for specific confined space resources and links for the construction industry - www.osha.gov/confined-spaces-construction

OSHA has also created a Small Entity Compliance Guide, Protecting Construction Workers in Confined Spaces, which can be found at - www.osha.gov/sites/default/files/publications/OSHA3825.pdf



Monthly Toolbox Talk

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Permit Required Confined Spaces

A confined space has limited openings for entry or exit, is large enough for entering and working, and is not designed for continuous worker occupancy. Confined spaces include underground vaults, tanks, storage bins, manholes, pits, silos, underground utility vaults and pipelines. Permit-required confined spaces are confined spaces that:

- May contain a hazardous or potentially hazardous atmosphere.
- May contain a material which can engulf an entrant.
- May contain walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant.
- May contain other serious physical hazards such as unguarded machines or exposed live wires.
- Must be identified by the employer who must inform exposed employees of the existence and location of such spaces and their hazards.

What Employees Should Do

Do not enter permit-required confined spaces without being trained and without having a permit to enter. Review, understand and follow employer's procedures before entering permit-required confined spaces and know how and when to exit.

- Before entry, identify any physical hazards.
- Before and during entry, test and monitor for oxygen content, flammability, toxicity or explosive hazards as necessary.
- Use employer's fall protection, rescue, air-monitoring, ventilation, lighting and communication equipment according to entry procedures.
- Maintain contact at all times with a trained attendant either visually, via phone, or by two-way radio. This monitoring system enables the attendant and entry supervisor to order you to evacuate and to alert appropriately trained rescue personnel to rescue entrants when needed.

Know the Possible Permit Required Confined Space Hazards

