

# CONFINED SPACE DANGERS

OSHA requires confined spaces to be evaluated to find out if there are any hazards present, and if there are hazards, then the area must be classified as a permit-required confined space.

**OSHA Standard 1910.146(b)** *"Confined space" means a space that: (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and (2) Has limited or restricted means for entry or exit and (3) Is not designed for continuous employee occupancy.*

There are four categories of hazards that will make any confined space a permit-required confined space:

1. hazardous atmosphere, that may have low oxygen or a toxic gas
2. potential for engulfment, drowning, or suffocation
3. a layout that might trap a worker through converging walls or a sloped floor
4. any other serious safety or health hazard



The only way to know if a confined space has a hazardous atmosphere is to test it. A hazardous atmosphere inside a confined space may contain any of the following:

- flammable gas, vapor, or mist
- airborne combustible dust
- oxygen concentration below 19.5% or above 23.5%
- any airborne substance above dangerous levels according to OSHA regulations
- any other atmospheric condition that is immediately dangerous to life or health

Liquids and loose materials pose an “engulfment hazard” which means workers could sink, be captured, and become buried by the material.

- Certain particulate materials like soil, gravel, sand, flour, or grain may temporarily support your weight but can act like quicksand when a person steps onto them.

## Discussion

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***What other hazards might cause a confined space to be classified as a permit-required confined space?***