Confined Spaces Can Become Domino Death Traps

What’s at Stake

A confined space is any enclosed or partially enclosed space with restricted entry and exit that is not designed or intended for continuous human occupancy. The word “confined” suggests “small” but many confined spaces aren’t small.

Storage tanks, silos, sewers, enclosed drains, ductwork, vats, unvented or poorly ventilated rooms and trenches are all examples of confined spaces. They are found in a large number of workplaces, both indoors and outdoors and above ground and underground.

What’s the Danger

Many confined spaces contain hazardous substances or dangerous conditions. Some areas become confined spaces because of work being carried out inside them. In confined space fatalities, about six out of 10 victims are would-be rescuers.

Example

Workers were carrying out repairs on a large barge. When a supervisor went missing, other workers attempted rescue and four people died from oxygen deprivation.

How to Protect Yourself

Confined space hazards include:

- Poisonous gases, fumes or vapors,
- Liquids or solids which fill the space or release gases into it,

- Insufficient oxygen,
- Explosions and fires related to flammable vapors,
- Residues in tanks or vessels,
- Downward-sloping floors or walls that converge inward and may trap or suffocate workers,
- Electrical hazards,
- Mechanical hazards,
- Poor visibility,
- Combustible dusts, and
- Potential heat illness.

Your safest approach should be to perform work from outside a confined space, instead of entering it.

If confined space entry is unavoidable, there must be a safe system of working inside it. Your employer must conduct a risk assessment to identify and minimize hazards before allowing workers to enter a confined space and you need to receive training to ensure you can work safely within the space.

Confined space training includes:

- Recognizing and identifying hazards associated with confined spaces,
- The difference between a permit-required confined space, which potentially contains atmospheric, engulfment or entrapment hazards, and a non-permit confined space, which doesn’t carry such hazards,
- Methods for controlling potential hazards,
- Instruction on how to use emergency equipment, ventilation equipment, air quality monitors and other equipment within confined spaces,
- Personal protective equipment to be used within the space,
- Safe work procedures for entering and working within the confined space,
- What to do and what not to do if an emergency develops, and
- What work can and cannot be done within the space.

Never enter a confined space before talking to your supervisor and never enter a confined space to rescue another worker. Get help

from someone trained on confined space rescues. It may be necessary for a competent person to test the air for toxic and flammable vapors, along with oxygen content, before anyone enters the space.

Final Word

Many of the deadly hazards associated with confined spaces, including poisonous or oxygen-deficient atmospheres, aren’t visible. Unless you are trained in confined space hazards and how to control them, never enter a confined space.