

Confined Spaces

According to the Bureau of Labor Statistics, between 2011 and 2018, 1,030 workers died from occupational exposures involving confined spaces. It's important to understand the hazards associated with these spaces to keep yourself and fellow coworkers safe.

Northwestern has hundreds of confined spaces (e.g., vaults, boilers, crawl spaces, pits, tanks). Identifying a confined space is simple; they all have 3 basic characteristics:

1. Big enough to enter and perform work.
2. Not designed to stay in continuously/for an extended period.
3. Has limited/restricted entrance/exit.

Some think "confined space" is synonymous with "dangerous," but not all confined spaces are inherently dangerous. **Non-permit spaces** meet the above criteria, but don't contain hazards capable of injuring workers or impeding their ability to escape in an emergency; as such, they don't require an entry permit or special precautions to work in. **Permit-required confined spaces (PRCS)**, however, either contain or can develop hazards that could injure or kill workers (e.g., low oxygen, water engulfment, electrocution). Most PRCSs are identified with signage, but it is important to be able to identify them so you don't accidentally enter a PRCS without the proper precautions.

Tips for Success When Talking to Your Team

Preparation is Key: Keep the topic relevant. Work with your team to review potential confined spaces in your work area, and discuss how the hazards can be avoided.

Stay Positive: Keep the focus on what can be done to create a safe workplace instead of focusing on what has gone wrong in the past.

Share a Story, Ask for a Story: Storytelling is a powerful method to convey information. Stories from your employees make the topic even more relatable.

Roles and Responsibilities

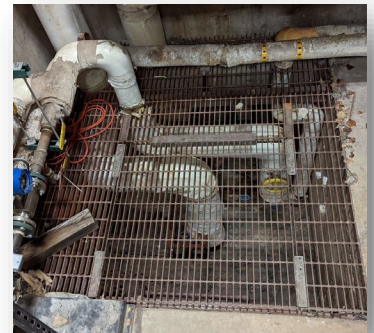
If work (e.g., inspections, repairs) must occur in a PRCS, [Safe Operating Procedures \(SOP\)](#) must be developed, approved, and followed. SOPs must include the following:

- Isolation and lockout/tagout of hazardous energy sources (e.g., steam, water, electricity, moving parts).
- Mechanical ventilation and air monitoring to ensure the atmosphere isn't hazardous.
- Determine and establish rescue procedures, and setup associated equipment (e.g., tripod, winch, harness).
- Prior to any entry, an entry supervisor must determine it is safe to begin work, authorize the [entry permit](#), and oversee all entry operations.
- Only authorized entrants may enter the PRCS to perform inspections or work.
- An attendant must be stationed outside the PRCS and monitor the authorized entrants while they are in the PRCS.

In addition to the responsibilities of their roles, all persons involved in a confined space entry must be trained on the hazards that may exist in the space, signs and symptoms (e.g., feeling faint, losing consciousness, electrification) of exposure to those hazards, and potential consequences (e.g., injury, illness, death).

If you encounter a possible confined space where you or a contractor must perform work:

- Do not enter the space.
- Notify [Environmental Health and Safety \(EHS\)](#) so it can be assessed and necessary entry requirements (e.g., lockout/tagout) can be determined.
- Attend EHS's OSHA-required [training](#), if you haven't already.



Report all injuries on Risk Management's [website](#) or call (847) 491-5582.

Learn more: Confined Space [Awareness](#) and [Entry Supervisor](#) training.

Safety at Home

Confined spaces can also be present in your home (e.g., attic, crawl space), and these can present several hazards (e.g., atmospheric, heat, mechanical, electrical, slip, trip, fall). Here are some tips to stay safe at home:

- Always keep access points secured to prevent children from entering.
- Notify someone or have them on standby at the entrance if you must enter in the event they need to call for help if you get stuck.
- Use a portable fan or some other means to ventilate potential atmospheric hazards and excessive heat during the summer from the space prior to entry.

For Additional Information

Contact Environmental Health and Safety at ehs@northwestern.edu.