

Permit-Required Confined Spaces: Recognizing when you are in a tight spot

By Glenn McGinley

Before you begin

- Become familiar with workplace spaces that meet the definition of a confined space.
- Review your written Permit-Required Confined Space (PRCS) program or policy.
- Review 29 CFR 1910.146, Occupational Safety and Health Administration's Permit-Required Confined Space (PRCS) standard.



Introduction

Workplace confined space fatalities occur too often, but with adequate planning, you can prevent them. Frequently, you can trace the cause of these incidents back to one of three factors:

- Space classification or evaluation failures;
- Inadequate or nonexistent entry procedures;
- Training.

Prior to permit-space entry operations, you need to evaluate and identify entry procedures and training.

At the start, thoroughly examine each workplace to determine if any locations meet the definition of a confined space. Once you identify confined spaces, evaluate them to determine if they are a permit-required confined space (PRCS).

PRCSs are those that contain actual or potential serious hazards with a risk for injury, illness or death. The OSHA PRCS standard requires employers to "consult with affected employees and their authorized representatives on the development and implementation" of a written workplace specific permit space program. This safety talk's purpose is to initiate a discussion about permit spaces in your workplace.

Definitions

A confined space is any location that meets all of the following criteria:

- The space has a limited or restricted means of entry and/or exit. (e.g., Entry area interferes with an entrant's ability to quickly escape or be rescued in an emergency);
- The space is large enough and its design allows an employee to fully "enter and perform assigned work";
NOTE: The PRCS standard defines entry as "the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space." The term body refers to any part of the anatomy including all extremities.
- The space is not designed for continuous occupancy (i.e., The space is not fit for continuous employee occupancy).

A PRCS is any location that meets the definition of a confined space and has one or more of the following characteristics:

- Contains or has potential to contain a hazardous atmosphere;
- Contains a material that could potentially engulf (i.e., surround and capture) an entrant;

- o Has an internal configuration that could trap or asphyxiate an entrant (e.g., inwardly converging walls or a floor which slopes downward and tapers to a smaller cross-section); or
- o Contains any other recognized serious safety or health hazard.

Discussion

The identification and evaluation of PRCs requires careful planning and preparation. Communicate information gathered during the identification and evaluation process to all employees and any outside contractor that may work or encounter these spaces.

Whenever workplaces contain permit spaces, employees must know about them. Employers may post danger signs or use an equally effective means that communicates the existence, location and danger of identified permit spaces.

Employers must be certain any alternative to a sign (e.g., readily accessible written list or additional training) is truly effective in warning all employees who could reasonably expect to enter a permit space.

They must explain how they conduct their confined space evaluation and describe the results to employees and representatives of OSHA or PERRP. Use hazard evaluation information to develop entry:

- o Procedures:
- o Permits:
- o Team training.

When an employer (host employer) arranges to have employees of another employer (contractor) perform permit-space entry work, the host employer must provide the contractor with evaluation information (e.g., location, hazards, precautions and the procedures) necessary for safe permit-space operations.

Conclusion

Each employer whose employees enter permit spaces must develop and implement a written permit-space program with procedures and practices necessary for safe permit-space entries. The procedures must include but are not necessarily limited to the following:

- o Specifying/Identifying acceptable entry conditions;
- o Isolating the permit space using available methods;
- o Purging, inerting, flushing or ventilating a permit space to eliminate or control atmospheric hazards using available methods;
- o Protecting entrants from external hazards like pedestrians and vehicles using available methods (e.g., barriers/barricades);

- o Verifying acceptable conditions for the duration of an authorized permit-space entry and the availability of timely and proficient rescue services and equipment.

Group activity

Work as a group or break into small groups and have the group(s) complete the following:

- o List three examples of spaces in your workplace that meet the definition of a confined space;
- o Describe actual or potential permit space hazards that exist at your employer;
- o List three examples of spaces in your workplace that meet the definition of a PRCs;
- o Identify control methods for permit-space hazards that exist at your employer;
- o Discuss as a group the next steps needed to evaluate all work areas for existing confined spaces.

References

United States Department of Labor — OSHA

- o *29 CFR 1910.146 Permit-required confined spaces*
- o *CPL 02-00-100 Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146.*

United States Department of Health and Human Services — National Institute for Occupational Safety and Health (NIOSH)

- o *Criteria for a recommended standard: Working in Confined Spaces.* NIOSH Publication No. 80-106
- o *Worker deaths in confined spaces: A summary of NIOSH surveillance and investigative findings.* NIOSH Publication No. 94-103.

American National Standards Institute (ANSI)

Z117.1-2009, *Safety Requirements for Confined Space.*

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