Oregon OSHA

FACT SHEET Plus

Permit-Required Confined Spaces

OAR 437
Division 2/J

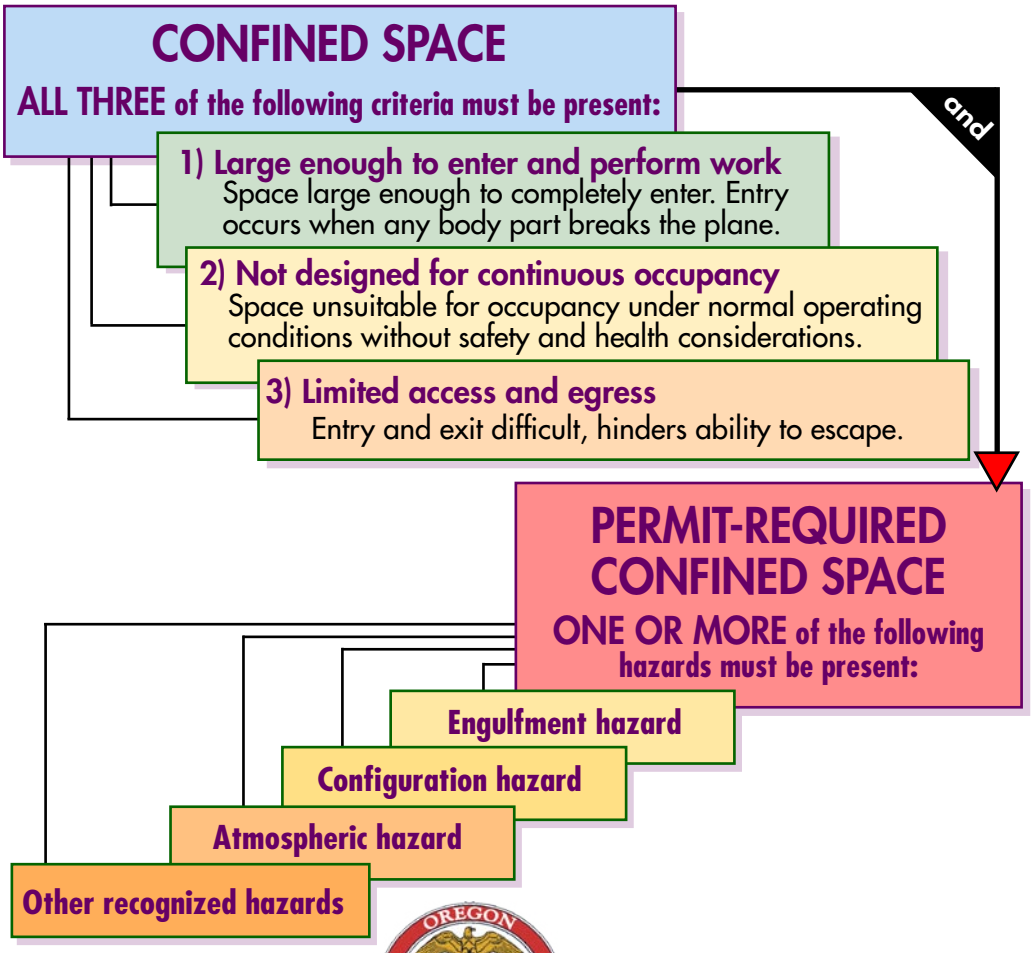
Permit-Required Confined Space

General-Industry Requirements

The Oregon Occupational Safety and Health general industry standard, 1910.146, is designed to protect workers who enter permit-required confined spaces (permit spaces). Agriculture, construction, and shipyard employment are excluded from this standard, although less-detailed industry-specific standards apply (see Resources). Employers must evaluate the workplace to determine if permit spaces exist. To make that determination, all spaces fitting the confined space definition (see schematic) must be identified. Any hazard within a confined space makes it a permit-required confined space (PRCS). When configuration changes occur or hazards develop, a confined space may need to be reclassified as a permit space.

1910.146, **Permit-Required Confined Spaces**, requires employers to do the following:

- Survey the workplace to identify permit spaces.
- Develop a written permit-space program that regulates employee entry into permit spaces.
- Inform employees about the danger and location of the PRCS through signs or equally effective means.
- Devise methods to prevent entry when entry into permit spaces is not allowed.
- Inform contractors who enter permit spaces about the hazards and compliance requirements for entry.



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Permit Space Entry

A permit-required confined space program is the employer's plan for controlling and protecting employees from permit-space hazards and regulating employee entry. An important component of entry is hazard recognition; evaluate the magnitude of the hazard and who is affected, likelihood of hazard occurrence and consequences, and the potential for changing conditions. The following critical activities lay the foundation for an effective permit-space program.

- Identify permit spaces and evaluate space hazards
- Decide if workers will enter
- Eliminate or control the hazards
- Establish entry procedures and prepare an entry permit
- Train employees on entry operations and their responsibilities
- Plan for emergencies

No one can enter a permit space without a written entry permit. The entry permit documents completion of acceptable entry conditions and verifies that the space is safe for workers to enter. Employers must review the permit-space program annually, noting problems on the permit so that revisions to the confined space program can be made. Keep canceled entry permits for one year. Entry-permit requirements are in Division 2, Subdivision J, **1910.146 (f)**.

Alternative-Entry Procedures

If a permit space has **only** an actual or potentially hazardous atmosphere, **and** the atmosphere can be controlled with forced air ventilation, workers can enter the space using alternative entry procedures. Documented monitoring and inspection data supporting these conditions allows for fewer entry restrictions; training requirements of the standard must be met **(1910.146 (c)(5))**.

A hazard is controlled when the hazardous condition exists but is continuously managed so that the hazard cannot recur during entry. Work within the space must not introduce new hazards. Spaces that are oxygen deficient or contain flammable and immediately dangerous to life and health conditions are atmospheres that expose workers to death, incapacitation, inability to self-rescue, and acute illness or injury. As a general guideline, a concentration level of up to 50 percent of whatever level (PEL, LEL, etc.) that would constitute a hazardous atmosphere is considered safe for entry.

Employers must periodically monitor the entry space to ensure that forced-air ventilation is controlling the atmospheric hazard. The atmosphere must be tested for oxygen content, flammable gases and vapors, and for potential air contaminants. Document test results and include the date, location of the space, and signature of the individual making the determination. The data must be available for review by employees authorize to enter.

Permit Space Reclassification

If a permit space has no actual or potential atmospheric hazards and all other hazards can be eliminated without entry, the space can be reclassified as a non-permit space, (**1910.146(c)(7)**). Elimination means the condition causing the hazard no longer exists for the duration of entry. Lockout and tagout procedures that comply with **1910.147**, The Control of Hazardous Energy, can be used to eliminate mechanical and electrical hazards. Isolation methods such as blanking, blinding, misaligning, or removing pipe sections can be used to eliminate hazards created by steam, natural gas, or other substances that can cause hazardous atmospheres or engulfment. Reclassification determinations must be documented. As long as equipment or machinery inside the permit space remains guarded, employees are not considered to be exposed to equipment-related hazards. If conditions change, the space must be reevaluated.

Rescue and Emergency Services

Employers must have a plan to remove employees from permit spaces. The standard requires a mechanical device to retrieve personnel from vertical permit spaces more than five feet deep; non-entry retrieval systems include a chest or full-body harness and an attached retrieval line. Employers can have their own employees **or arrange** to have an outside service (e.g., fire departments) enter spaces to perform rescues. Employers must evaluate and select a rescue service (personnel designated to rescue employees from permit spaces) with the ability to respond to a rescue summons in a timely manner (see **1910.146 (k)(1)(i)** note) and that is proficient with rescue tasks and equipment. Employers relying on outside rescue services must verify that the emergency responder is trained, equipped, able, and willing to conduct rescues in the employers' confined spaces. An employer with employees designated to provide permit-space rescue and emergency services must train rescuers to perform assigned rescue duties and provide personal protective equipment and training on its use. Rescue team members must be trained in basic first aid and cardiopulmonary resuscitation (CPR). One member at the rescue scene must hold a current certification in basic first aid and CPR. Employers must inform designated rescuers about permit-space hazards and ensure that rescue team members practice making permit-space rescues at least annually in representative spaces.

Resources

Standards containing requirements for confined space include **OAR 437, Division 2/J, 1910.146**, Permit-Required Confined Space, **Division 4/J, 437-004-1250**, Confined and Hazardous Spaces, **Division 5, 1915 Subpart B**, Confined and Enclosed Spaces. Others contain confined-space requirements within the rule; for example, **Division 3/C, 1926.21**, Safety Training and Education. For the full text of Oregon OSHA rules, visit our Web site, www.orosha.org, **Rules/Laws**.

Related resource and links

www.cbs.state.or.us/external/osha/pdf/pubs/2864.pdf

www.osha.gov/SLTC/confinedspaces/index.html

ANSI Z117-1, ***Safety requirements for confined spaces***

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