

Confined Space Requirements

Colorado Distribution & Collection Systems Short School

Becoming an industry leading resource to support contractor compliance in CS entry operations

What are Confined Spaces?



How does OSHA define a confined space?

A space that is...

Large enough to bodily enter

Has limited or restricted means of entry and exit

Is not designed for continuous occupancy



SAD – Size, Access, Duration

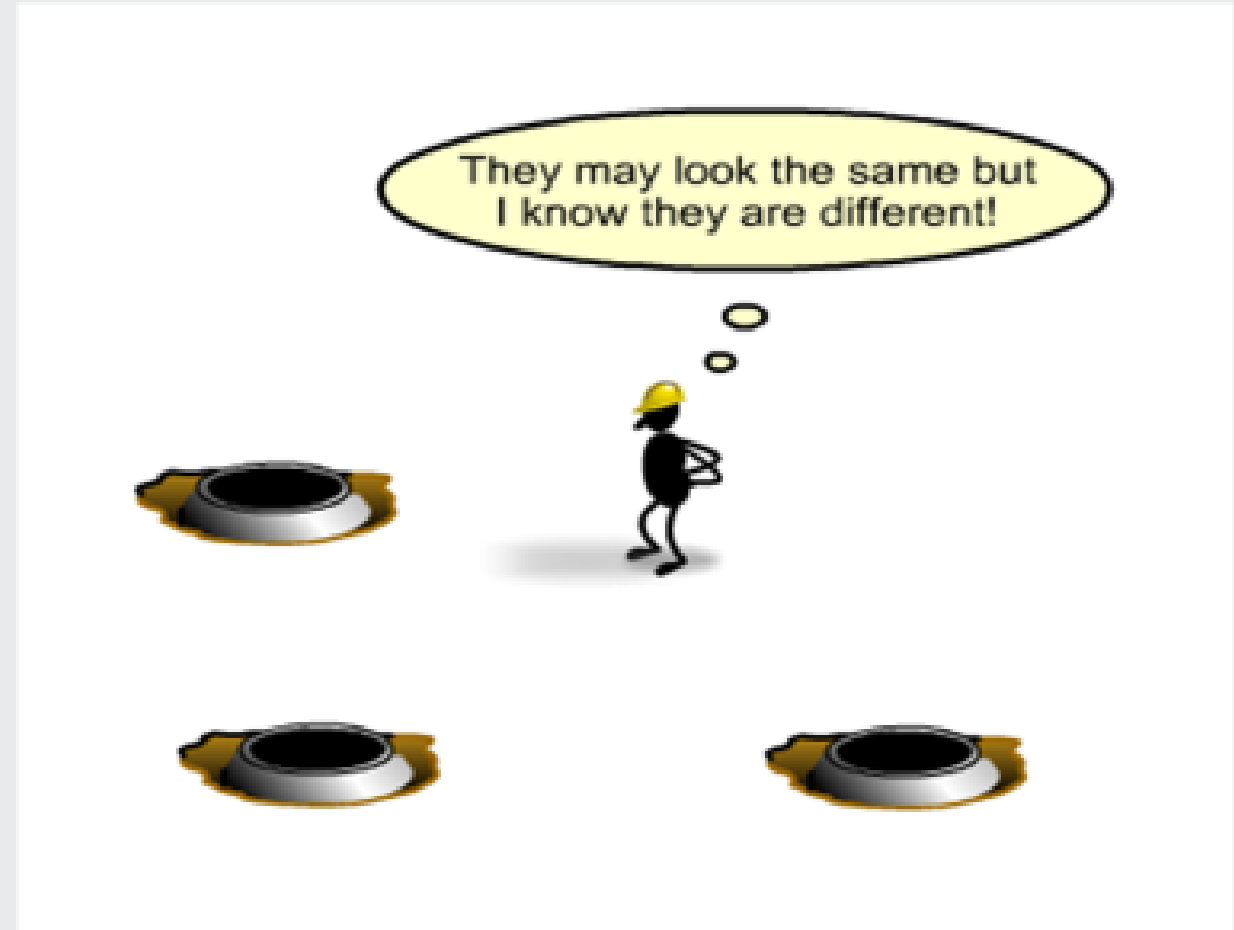
Examples of confined spaces

- Manholes
 - Sewer, communication vaults, electrical, etc.
- Tanks
- Pipe
- Grease pits
- PRV Vaults



Three categories of confined spaces

- **Permit-required confined spaces (PRCS)**
- **Alternative entry confined spaces**
- **Non-permit entry confined spaces**



Permit-required confined spaces (PRCS)

Permit spaces must have (1) or more of the following characteristics:



- Contains or has the potential to contain a **hazardous atmosphere**
- Contains material that has the potential for **engulfing** the entrant
- Has internal configurations such that an entrant could be **trapped or asphyxiated by inward converging walls or by a floor with downward slopes** and tapers to smaller cross section
- Contains any other recognized serious safety health hazard (**i.e. physical**)

Non-permit entry confined spaces

Space meets the definition of a confined space, however if it...



- Doesn't meet the requirement of a PRCS or Alternate Entry.
- Proven through proper testing and evaluation of the space before entry.
- **Testing and evaluation is also required in new construction.**

Alternate entry confined spaces

Only (1) Hazard Identified = Atmosphere



- Employers can use alternate entry procedures only if:
The only hazard found in the space is an actual or potential hazardous atmosphere. All physical hazards must be eliminated.
- Test and record reading of gas monitor
- Communication between entrant and attendant

Key players in PRCS operations - NEW

HOST EMPLOYER

The employer that owns or manages the property where the construction work is taking place.

- Municipality, Facilities Owner, Utility Owner, etc.

ENTRY EMPLOYER

The employer who decides that an employee is directed will enter a permit space.

NOTE: can't avoid the duties of the standard by refusing to decide whether its employees will enter a permit space. OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Example: Subcontractors

CONTROLLING CONTRACTOR

The employer who has the overall responsibility for construction at the worksite.

If both the owner or manager of property, then they are both a controlling contractor and host employer.

Example: General Contractors



Essential terms associated with permit spaces

Acceptable Entry Conditions

The conditions that must exist in a permit space, before an employee may enter that space, to ensure that employees can safely enter into, and safely work within, the space.

Entry Permit

The written or printed document that is provided by the employer who designated the space a permit space to allow and control entry into a permit space and that contains the information specified in 1926.1206 of this standard.

Key roles / duties in permit spaces



Role: Authorized Entrant



Authorized Entrant

The employee authorized by the entry supervisor to enter a permit space.

- Know the CS hazards, physical symptoms and consequences
- Know the proper use of all equipment to be used in CS
- Constant communication with attendant
- Exit CS promptly when necessary or advised by attendant

Role: Attendant

Attendant

The individual stationed outside one or more permit spaces, to ensure that employees can safely enter into and safely work within, the space.

Same as authorized entrant, plus:

- Always remain outside of PRCS
- Monitors entrant and surrounding activity
- Summons rescue if needed
- Keeps unauthorized persons away from PRCS
- **Performs non-entry rescue if needed**
- Only performs attendant duties



Role: Entry Supervisor

Entry Supervisor

if **acceptable entry** conditions are present at a PRCS.

- Know the CS hazards, physical symptoms and consequences **qualified person** (employer, foreman, crew chief) responsible for determining
- **Verifies performance of permit testing, procedures and equipment**
- Manages and terminates PRCS entry and permits
- Verifies capability, availability and communication with rescue services
- Removes unauthorized persons
- Determines compliance with the entry permit for each CS

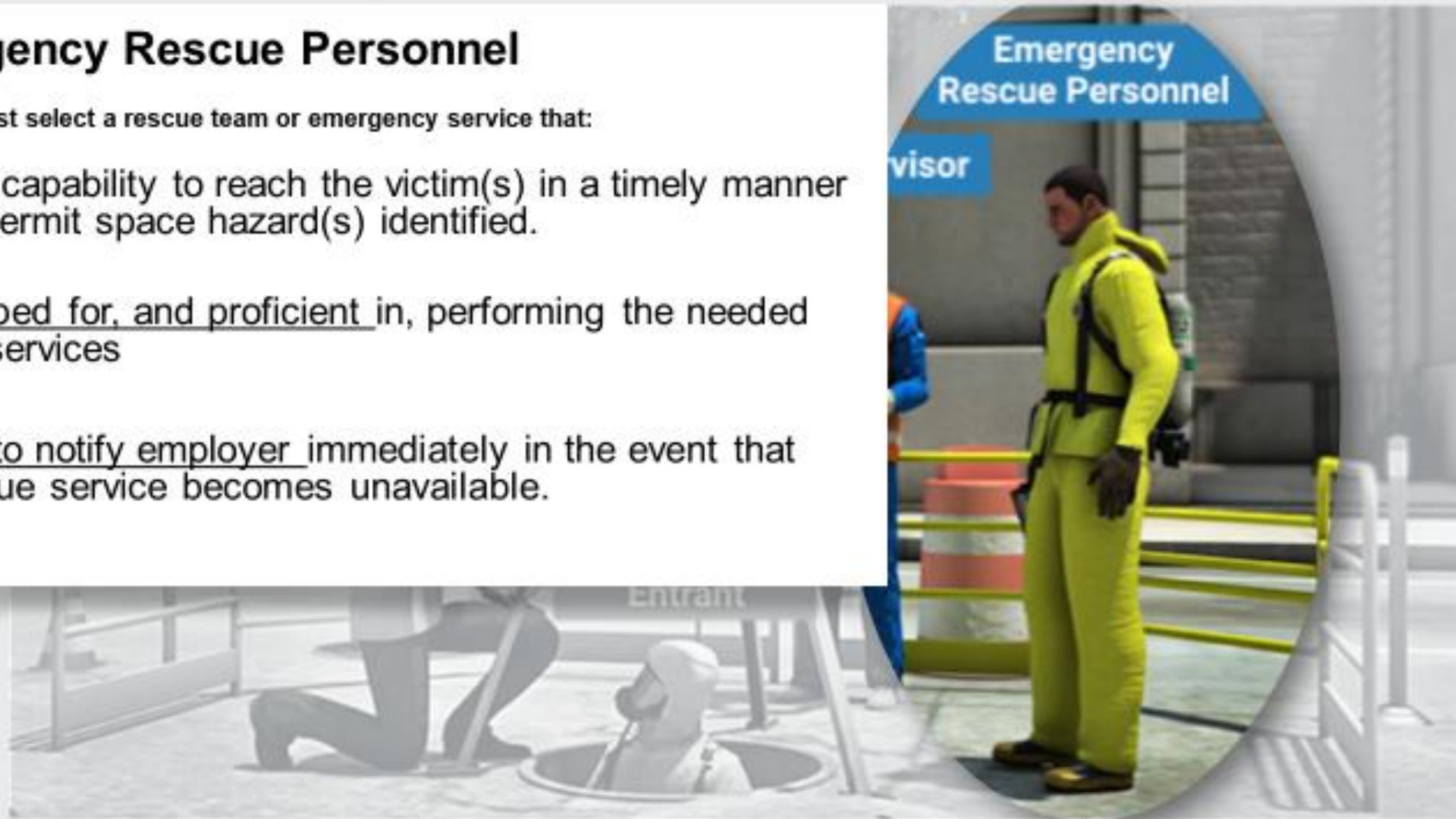


Role: Emergency Rescue Personnel

Emergency Rescue Personnel

Employers must select a rescue team or emergency service that:

- Has the capability to reach the victim(s) in a timely manner for the permit space hazard(s) identified.
- Is equipped for, and proficient in, performing the needed rescue services
- Agrees to notify employer immediately in the event that the rescue service becomes unavailable.



Other essential terms

Barrier

A physical obstruction that blocks or limits access

Non-Entry Rescue

Occurs when a rescue service, usually the attendant, retrieves workers in a permit space without entering the space, using a retrieval system

Attendant

Entry Supervisor

Emergency Rescue Personnel

Entry Rescue

Occurs when a rescue service enters a permit space to rescue one or more workers. (Special criteria must be met to qualify and certify within the standard)

Entrant



Confined Space in Construction

- Five new rules in the construction standard and how they impact our business
- OSHA's provisions in the construction standard that clarify existing General Industry requirements



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New Rule #1: Competent person must identify & evaluate

A Competent Person...

- Evaluates the work site and identifies confined spaces, including permit spaces.

1926.1203(a)

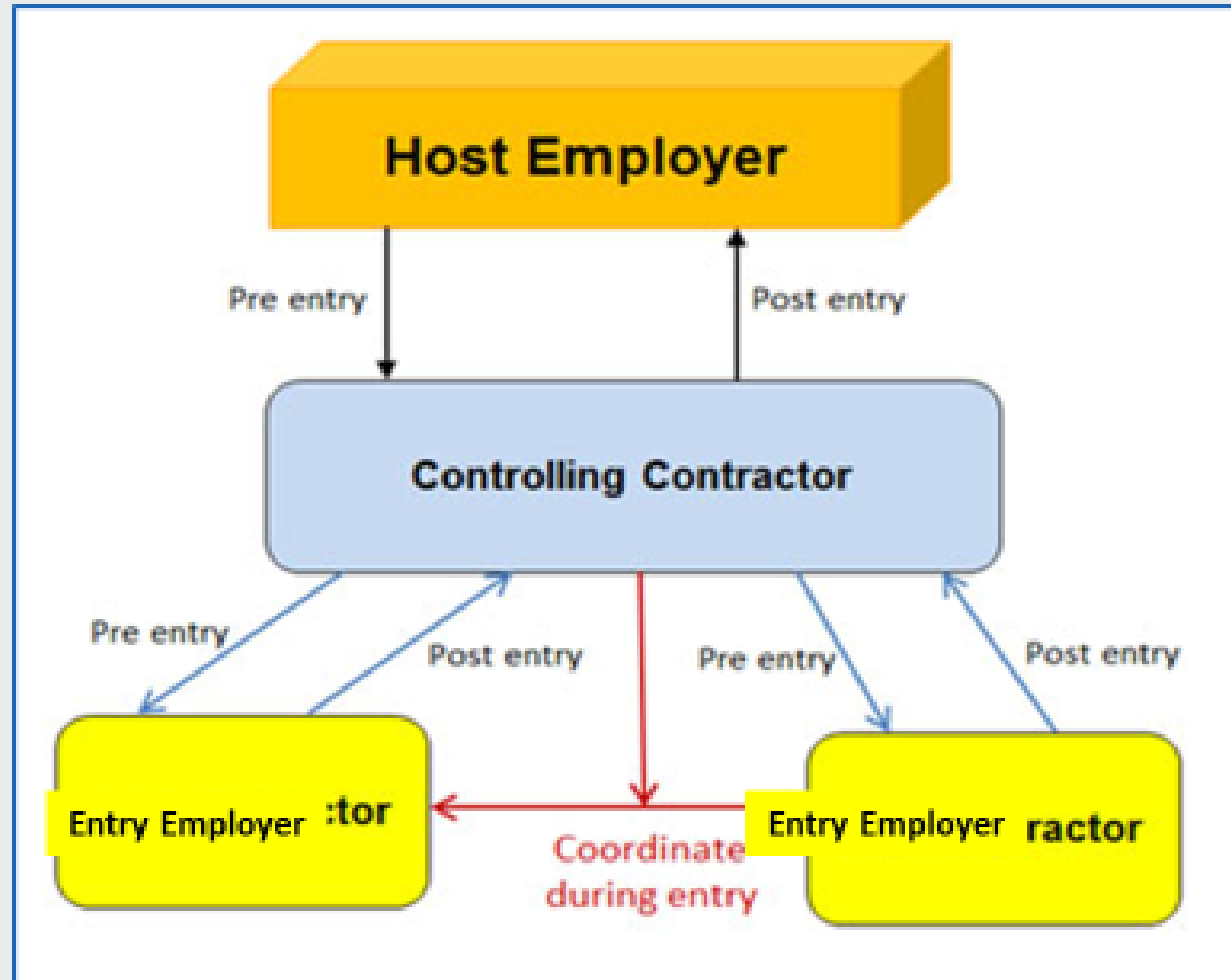


New Rule #2: Communicate and coordinate activities

Requires detailed communication and coordination between all entities on a multi-worker job site...

- Host Employer
- Controlling Contractor
- Entry Employer(s)

1926.1203(h)



New Rule #3: Early warning systems

Continuous monitoring of engulfment hazards.

Example: when workers are performing work in a storm sewer, a storm upstream from the workers could cause flash flooding. An electronic sensor or observer posted upstream from the work site could alert workers in the space at the first sign of the hazard, giving the workers time to evacuate the space safely.



1926.1204(e)(1)(iii)

New Rule #4: Continuous monitoring

1926 Subpart AA...

- Requires continuous or sufficient periodic atmospheric monitoring

1926.1204(e)(2)



New Rule # 5: Suspension of a permit

Allows for suspension of a permit instead of cancellation...

- If temporary prohibited conditions arise
- Space must be returned to the acceptable entry conditions listed on the permit before re-entry

1926.1205(e)(2)



Clarification: Rescue & emergency services

Employers directing employees into PRCS must...

- Evaluate rescue service ability to respond in a timely manner
- Evaluate rescue service's proficiency with:
 - Task and equipment
 - Types of spaces
 - Willingness to notify entry employer if unavailable
- Inform rescue services of hazards
- Provide rescue service access to all permit spaces so they can develop and practice appropriate rescue operations
- The attendant could be the rescue service in some cases

1926.1211



Clarification: Training

Requires that employers...

Provide training to all affected employees in a language and vocabulary that the worker understands.

Requirements:

- At no cost to employee
- Before 1st assignment
- Before duties change
- Whenever hazards change
- Observable deficiency

1926.1207



Summary



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