



**Occupational Safety  
and Health Administration**

# **Confined Spaces in Construction: The Big Picture 29 CFR 1926 Subpart AA**

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# Background

- General Industry Standard published 1993
- United Steelworkers settlement 1994
- SBREFA panel.
- Proposal 2007
- Final Rule published May 4, 2015;  
effective August 3, 2015
- Residential Extension through March 8,  
2016



# Basics

- What is a confined space?
  - Big enough to enter
  - Not for regular occupancy
  - Difficult to exit
- Examples include: Sewers, pits, crawl spaces, attics, boilers, tanks, etc.
- Hazards include: Low oxygen, toxic atmospheres, flammables/explosives, animals and insects, etc., and hazards caused by the work being done!

# What is a Permit Space?

- Permit-Required Confined Space (Permit Space)
  - A confined space WITH
    - Hazardous or potentially hazardous atmosphere;
    - Engulfment hazard;
    - Physical Hazard;
    - Other serious safety or health hazard

# Who does what?

- Site evaluation:
  - Any employer whose employee may enter a confined space needs to ensure that the site is evaluated and spaces are posted, but the evaluation and posting may be coordinated through a single employer.
  - Site evaluation involves hazard recognition – hazards already in the space, and hazards created as a result of the work being done.



# What do you mean by “posted”?

- Employers who identify or are made aware of permit spaces must make sure that exposed workers are made aware of the existence, location, and danger of each permit space.
  - A sign reading “DANGER – PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER” would satisfy the requirement for posting.

# Who does what?

- Permit issuance:
  - Entry employers (employers who direct workers to enter a permit space) must develop and post permits.
    - Permits list required entry conditions, equipment that must be used, and track who is inside the space.



# What do you mean by “permit”?

- The term “permit” is used in the general industry rule, and was retained here for consistency.
- This is similar to a “hot work” permit, sometimes required for welding or use of other sparking tools on certain work sites.
- This rule does not require an employer to file a permit with OSHA or a municipal or other authority.



# What needs to be on the permit?

- The space to which the permit applies.
- The purpose of the entry.
- The date and duration of the permit.
- The names or other designation of the authorized entrants (can refer to a roster or tracking system) and names of attendant(s) and entry supervisor(s)

# What needs to be on the permit? (cont'd)

- Hazards in the space and measures used to eliminate or control permit space hazards.
- Methods used to detect increases in hazardous atmospheric conditions
- Acceptable entry conditions.
- Results of atmospheric tests and monitoring and names/initials of testers, and dates of tests.

# What needs to be on the permit? (cont'd)

- Rescue and emergency services and the means (such as equipment to use and numbers to call) for summoning those services.
- Communication procedures used by entrants and attendants during entry.
- Equipment necessary for entry.
- Any additional permits (such as hot work) issued to authorize work being performed in the space.

# What do you mean by “program”?

- A written program developed under this rule outlines how the employer will protect workers from permit space hazards.
  - Programs will often be used for more than one work site – they will give general information about the hazards and methods of addressing hazards used by that employer.
  - In contrast, permits contain specific information about the particular space entered under that permit.

# What are “alternate procedures”?

- For an employer to use “alternate procedures” to enter a permit-required space, the space must:
  - Have only atmospheric hazards (or potential hazards)
    - If physical hazards must be eliminated or isolated, this has to happen without entering the space OR by entering under full permit conditions until the physical hazards are eliminated.

# What are “alternate procedures”? (cont’d)

- To use “alternate procedures” to enter a permit space, the employer:
  - Must show that continuous forced air ventilation is sufficient to control atmospheric hazards and that workers can exit the space safely in the event of an emergency
  - Must use continuous or periodic monitoring to ensure the forced air is effective.
  - Must document that the space is safe and that pre-entry measures have been taken.





# Proper Prior Planning...

- Awareness of hazards
- Addressing hazards BEFORE entering
- Preparation for rescue in the event of an emergency/unanticipated condition.
- With planning and forethought, many construction employers will be able to avoid the need for a permit space program.

# What do workers need to know?

- Training must cover:
  - Hazards in permit spaces and methods used to protect workers from those hazards.
  - The dangers of unauthorized rescues.
  - Must result in proficiency in the duties assigned under this standard and new or revised procedures, as necessary.

# When should workers be trained?

- Before the worker is assigned duties.
- Before there is a change in assigned duties.
- Whenever there is a change in permit space entry operations.
- Whenever there is a deviation from procedures or deficiencies in the worker's knowledge or use of those procedures.

# More about Training

- Training must be provided at no cost to the worker.
- Training must be provided in a language and vocabulary the worker can understand.

# What do workers going into the space have to do?

- Entrants must:
  - Know hazards that may occur, and the signs, symptoms, and consequences of exposure
  - Know how to use safety equipment
  - Communicate with the attendant
  - Alert the attendant if there is a sign of exposure or a prohibited condition
  - Evacuate the space if this occurs or if the attendant orders evacuation or an evacuation alarm sounds.



# What do attendants have to do?

- Attendants must:
  - Know hazards that may occur, and the signs, symptoms, and consequences of exposure
  - Know possible behavioral effects of hazard exposure
  - Maintain an accurate count of entrants and be able to identify who is in the space
  - Remain outside the space until relieved by another attendant

# What do attendants have to do? (cont'd)

- Attendants must:
  - Communicate with entrants
  - Assess conditions inside and outside the space, and order evacuation if:
    - A prohibited condition occurs
    - Behavioral effects of exposure are apparent
    - A condition outside the space could endanger the entrants
    - The attendant cannot perform the duties required under the standard.



# What do attendants have to do? (cont'd)

- Attendants must:
  - Summon rescue and other emergency services as soon as entrants may need assistance to escape.
  - Warn unauthorized persons to stay away from the permit space, advise unauthorized entrants that they must exit immediately, and inform authorized entrants and the entry supervisor
  - Perform non-entry rescue as specified by the program.
  - Not perform any duties that might interfere with attendant duties.

# What does an entry supervisor do?

- Entry supervisors must:
  - Know hazards that may occur and the signs, symptoms, and consequences of exposure
  - Verify that all tests req'd by the permit have been conducted, and permit procedures and equipment are in place before allowing entry
  - Terminate entry and cancel/suspend the permit in the event of work completion, prohibited conditions, or emergency.

# What does an entry supervisor do? (cont'd)

- Entry Supervisors must:
  - Verify that rescue services are available and that the designated means of summoning them functions, and that the rescue service will notify if it is unavailable
  - Remove unauthorized entrants
  - Determine that entry operations are consistent with the terms of the permit and that acceptable entry conditions are maintained throughout the entry



# Rescue

- Rescue must be provided if workers are entering a PERMIT SPACE.
- Non-entry rescue must be provided unless it increases risk or would not contribute to a successful rescue
  - Full-body harness with retrieval line
  - Unsuitable equipment must not be used.

# Rescue

- If entry rescue is required, the employer must ensure the rescue service:
  - Can respond in a timely manner
  - Can perform rescue in the specific space(s)
  - Can reach victims in a time frame appropriate for the hazards identified
  - Is equipped for and proficient in the necessary services
  - Agrees to notify the employer in the event the service becomes unavailable

# Rescue

- Entry rescue (cont'd)
  - Employers must inform the rescue service of the hazards it may confront
  - Employers must provide the rescue service with access to all permit spaces from which rescue may be necessary

# What about the rescuers?

- If an employer's workers will perform rescue, the employer must, at no cost to the workers:
  - Provide the necessary PPE and training
  - Train each worker how to perform assigned rescue duties
  - Train each worker in basic first aid and CPR, and ensure one member of the team has a current certification in both
  - Ensure each worker practices rescue before attempting an actual rescue, and at least every 12 months.

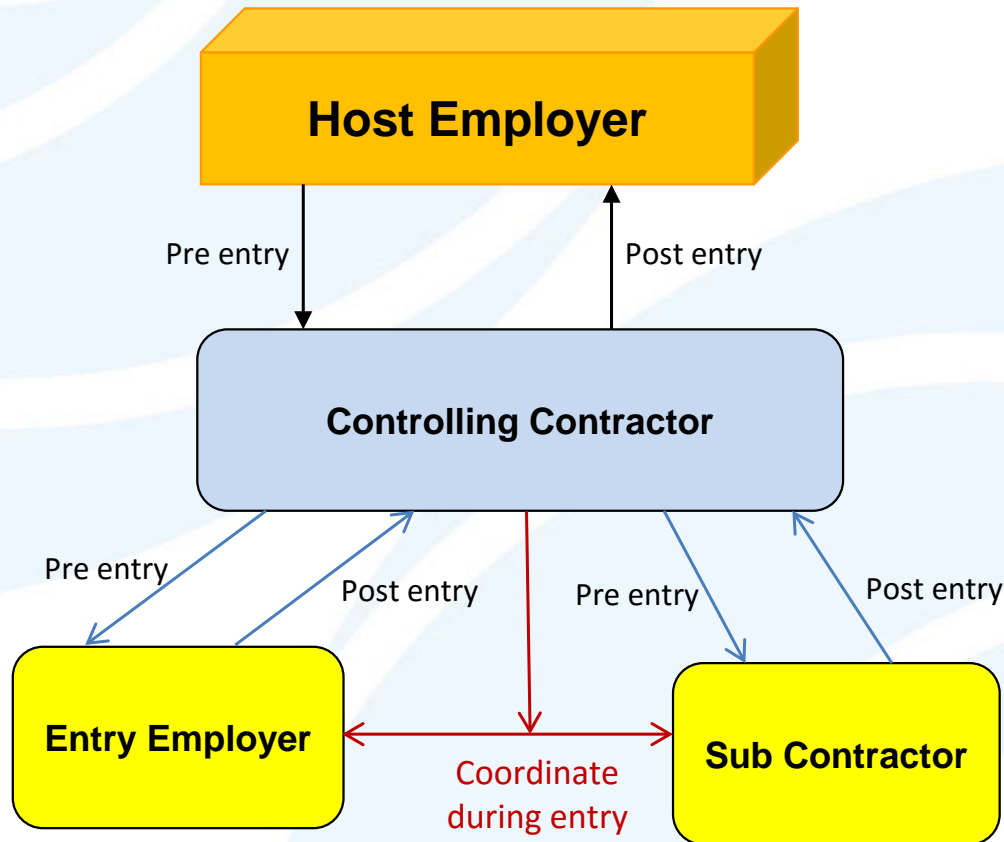




# What's Different?

- General Industry Plus
  - Mostly the same requirements as 1910.146, with some additions
    - Continuous monitoring of atmospheric and engulfment hazards
    - Specific information exchange requirements for multi-employer work sites.

# Information Exchange



# What's Different

- Relying on 911 or local emergency responders for entry rescue
  - The construction rule explicitly states that the emergency responders must agree to notify the employer in the event that the rescue service becomes unavailable.
- A competent person must conduct worksite evaluation.

# What's Different?

- General Industry Plus (cont'd)
  - Employers using “alternate procedures” for permit space entry may prevent physical hazard exposures through isolation methods, such as by placing a solid barrier to prevent a physical hazard from contacting an employee, not just by elimination.
  - Permits may be suspended instead of cancelled, in response to temporary changes like a one-time loss of power from a blown fuse, provided the space is returned to permit conditions prior to re-entry.

# What's Different?

- General Industry Plus – Clarifications
  - Incorporation of general OSHA policies directly into the regulatory text.
  - Additional terms included, such as “entry employer” and “entry rescue”.

# General Industry vs. Construction

- What if an employer does construction AND maintenance work in the same space at the same time?
  - Employers with workers engaged in both types of work will be in compliance with both standards if they follow 1926 Subpart AA.

# Information and Outreach

- <http://www.osha.gov/confinedspaces/index.html#>
  - Fact Sheets and FAQs
  - Small Entity Guide
  - Additional outreach documents forthcoming
  - Webinars and presentations





# Contact

Please send questions and comments to  
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