

MODEL PERMIT-REQUIRED CONFINED SPACE PROGRAM FOR CONSTRUCTION



MCAA Safety Excellence Initiative



Introduction

Since 1993 much of the construction industry has voluntarily complied with OSHA's general industry standard for confined space entry, *Permit Required Confined Spaces*. Implementation of the standard was reasonable for construction employers, and very effective for worker protection. However, the standard was never intended for use in the construction industry. In 2015 OSHA released a new standard that addresses confined space safety in the construction industry – *Confined Spaces in Construction*. The new standard is similar to the general industry standard, but there are key differences such as:

- Before beginning construction work, the competent person must identify all applicable confined spaces and determine which of them are permit-required;
- When using alternate entry procedures in lieu of a permit, all physical hazards must be eliminated or isolated;
- When using alternate entry procedures in lieu of a permit, the space must be continuously monitored for atmospheric hazards;
- Additional communication requirements must be met to ensure safety on multi-employer worksites;
- When using alternate entry procedures in lieu of a permit, the employer must ensure that entrants can exit the space safely if the ventilation system stops working;
- When using the permit space program, the employer must ensure that monitoring procedures are in place to detect any increase in atmospheric hazard levels, and warn workers in time for them to safely evacuate the space.
- All affected workers must receive the required training in a language and vocabulary that they will understand; and
- The entry employer must, before entry operations begin, make arrangements with the established rescue/emergency service to receive notice immediately if the service becomes unavailable.

For more detail on key differences between OSHA's construction and general industry standards, see the side-by-side comparison of key differences in Appendix III.

ALERT: When your workers will be welding, cutting, or heating inside a confined space, make sure your company complies with all applicable parts of OSHA's Welding and Cutting Standard (29 CFR 1926 Subpart J). Pay special attention to 29 CFR 1926.353 (b) *Welding, Cutting, and Heating in Confined Spaces*.

This model program is not intended to provide exhaustive treatment on the subject of confined spaces in construction or safe confined space entry. It should not be used as a substitute for reading and interpreting federal or state OSHA regulations or any other pertinent state or local laws, rules, regulations, or standards. Further, it is not intended to provide legal advice. Employers must make independent determinations regarding the need for legal assistance.

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Instructions

Mechanical construction companies encounter many different types of confined spaces. Therefore, MCAA believes that it is important for members to have access to a model permit-required confined space program for construction that can be tailored as necessary to meet their companies' specific needs and confined space entry applications. This model program can be quickly, easily, and cost effectively tailored to meet those needs and applications.

1. Carefully read the following instructions. If you have any questions that are not answered in this publication, please contact MCAA at 800-556-3563.
2. Read OSHA's *Confined Spaces in Construction Standard*, and have all of your questions answered before you start work on your permit space program.
3. Read the model program. Obvious areas that require your attention will be in bold and underlined. **However, it's critical that you:**
 - Fully understand the confined space entry operation and specific entry applications that the program will cover;
 - Delete everything that does not apply to your specific applications; and
 - Add whatever provisions are necessary to complete the program and ensure compliance with applicable federal or state OSHA regulations, or any other pertinent state or local laws, rules, regulations, or standards.
4. Fill in all of the blanks, and delete all of the bolded and underlined prompts.
5. Also, be sure to tailor the Confined Space Entry Permit (Model) to your specific applications.
6. Personalize the program by including your company logo on the cover page.
7. Implement your company's Permit-Required Confined Space Program for Construction.

(Key in Your Company Name Here)

Permit-Required Confined Space Program

For

(Key in the Job Name Here)

Located at

Overview

This program applies to all company workers (affected workers) who are required to work in or near confined spaces. Before starting work on this jobsite, **(Competent Person Name)** will identify the confined space(s) that affected workers will enter, and will ensure that the space(s) is clearly marked with a prominent sign stating, “**DANGER—PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER.**” He will also inform all company workers on the site:

- About the presence and location of the confined space(s);
- About the potential hazards associated with the confined space(s); and
- Not to enter any confined space(s) for any reason unless and until they:
 - Have received the proper training;
 - Are granted authorized entrant status by **(Company Name)**; and
 - Have been informed by **(Competent Person Name)** that the space has been evaluated, properly prepared, and is safe for entry.

All Confined Spaces

(Company Name) will consider every affected confined space to be a permit-required confined space until it has been carefully evaluated by **(Competent Person Name)**, determined to meet the established criteria of a non-permit-required confined space, and the results of the comprehensive evaluation have been carefully documented.

Confined Space Classification

- When welding, cutting, or heating will be performed inside the space, **(Competent Person Name)** will ensure that it retains its classification as a permit space.
- When welding, cutting, or heating will not be performed inside the space, **(Competent Person Name)** will determine whether it could be reclassified as a non-permit space by evaluating the atmosphere inside before the space is ventilated. The test instrument will be a properly calibrated direct reading instrument. **(Competent Person Name)** will test the space at all applicable vertical and horizontal levels for the following hazards in the order in which they appear below:
 - Insufficient/excess oxygen content;
 - Flammable gases/vapors/mists; and
 - Toxic air contaminants.
- He will also evaluate the space for:
 - Physical hazards, other recognizable safety and health hazards, and (if applicable) airborne combustible dust.

- If atmospheric conditions inside the space are not safe for entry (**Competent Person Name**) will establish a ventilation system and retest the space.
- (**Competent Person Name**) will also evaluate the space and surrounding outside areas for any potential physical hazards, and other potential safety and health hazards.
- When no welding, cutting, or heating is to be performed inside the space, no atmospheric hazards exist, or they remain eliminated or isolated, and all other hazards inside the space are eliminated or isolated without entry, (**Competent Person Name**) will recommend to (**Entry Supervisor Name**) that the space be reclassified as a non-permit space. Otherwise (**Competent Person Name**) will ensure that the space retains its classification as a permit space.

Non-Permit Required Spaces

If the space is reclassified as a non-permit space and retains that classification throughout entry operations (**Company Name**) will use alternate confined space entry procedures in lieu of a permit-required confined space entry program. Continuous atmospheric monitoring will be performed throughout entry operations. Anytime changing conditions inside or outside the space indicate a potential hazard, the space will be evacuated immediately, reclassified as a permit space, and reevaluated by (**Competent Person Name**) before reentry is permitted.

Permit Required Spaces

If the space retains its initial permit-required space classification, or if a non-permit-required space is reclassified as a permit-required space, this permit-required confined space program applies.

- Welding, Cutting, or Heating
 - When welding, cutting, or heating are to be performed inside the space, (**Competent Person Name**) will ensure that an adequate general mechanical ventilation system or local exhaust ventilation system, is established inside the space.
 - When a general mechanical ventilation system is used, (**Competent Person Name**) will ensure that it has the capacity and is arranged to produce the number of air changes necessary to keep welding fumes and smoke within the established safe limits.
 - When a local exhaust ventilation system is used, (**Competent Person Name**) will ensure that it includes movable hoods placed by the affected worker and arranged as close to the work as is practical. (**Competent Person Name**) will also ensure that the system has the capacity and is arranged to remove fumes and smoke at the source and reduce concentrations within the worker's breathing zone to safe limits.

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- **(Competent Person Name)** will ensure that contaminated air exhaust is discharged into the open air away from the source of the intake air.
 - **(Competent Person Name)** will ensure that replacement air is clean and respirable.
 - **(Competent Person Name)** will ensure that oxygen is not used for ventilation purposes, comfort cooling, blowing dust from clothing, or for cleaning the work area.
 - When a worker must enter a space through a manhole or other small opening, **(Competent Person Name)** will ensure that an effective method is established to quickly remove the worker if an emergency occurs. When safety belts and lifelines are being used for this purpose, **(Competent Person Name)** will ensure that the system is attached to the worker in a manner that will prevent him from being stuck in the exit opening.
 - **(Competent Person Name)** will ensure that an attendant with a pre-planned rescue procedure, who is capable of putting a rescue operation into effect, is stationed outside and observing the worker inside the entire time that he is in the space.

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Prior to Authorizing Entry

Description of Space to be Entered

(Briefly describe the confined space that your workers will be required to enter. Include a description of the type of mechanical construction work to be performed, and the location of the space on the jobsite.)

Procedures for Safe Entry

The following conditions must be met and maintained throughout entry operations for authorized entrants to work without additional protective measures and equipment.

Acceptable Entry Conditions

- Oxygen levels between 19.5% and 23.5%;
- Flammable gases/vapors/mists at or below 10% LFL;
- Toxic air contaminants at or below allowable/safe levels PPM;
- All physical hazards eliminated or isolated;
- All other recognizable safety and health hazards eliminated or isolated; and
- Airborne combustible dust (vision not obscured at 5' distance or less).

All authorized entrants and their authorized representatives will be afforded the opportunity to observe pre-entry monitoring and all subsequent monitoring. They will receive the results of the monitoring immediately upon request.

(Competent Person Name) will ensure that the space is properly isolated and that any physical hazards that were identified during evaluation of the space are eliminated or isolated.

(Competent Person Name) will ensure that the space is properly ventilated, purged, flushed, and/or rendered inert to eliminate or control atmospheric hazards.

(Competent Person Name) will ensure that all authorized entrants are provided with properly calibrated personal atmospheric monitors and required to use them at all times while inside the space. Each of the personal monitors will be capable of alerting the user of unsafe atmospheric conditions, and calibrated to allow adequate time for safe evacuation if atmospheric hazards occur due to failure of the ventilation system or any other reasons.

(Competent Person Name) will ensure that adequate barriers are erected around the space to prevent unauthorized access to the space and other potential hazards, such as vehicle traffic.

(Attendant Name) will be stationed outside the space at all times during entry operations. He will perform continuous monitoring during entry operations to ensure that the atmosphere inside the space remains hazard free. He will also continuously evaluate the space and areas outside the space for other hazards that could affect authorized entrants. **(Competent Person Name)** will verify that continuous monitoring is being performed throughout entry operations.

When engineering controls do not by themselves provide adequate protection **(Competent Person Name)** will ensure that engineering controls continue to function and authorized entrants are provided with, and required to use, the appropriate personal protective equipment. When respiratory protection is required, the authorized entrants will be medically cleared for respirator use, properly fit tested, and trained on the selection, use, maintenance and storage of respiratory protective equipment. **(Competent Person Name)** will evaluate the applicable documentation to verify that affected workers are adequately prepared to use the necessary respiratory protection.

(Competent Person Name) will ensure that the space entry cover is not under pressure, and does not present other potential hazards during removal. When potential hazards exist, he will confer with **(Entry Supervisor Name)** to determine the safest method available to remove the cover and ensure that the cover is safely removed.

Permit Space Entry Equipment

- Test instruments will be inspected and properly calibrated by **(Competent Person Name)** before entry operations begin. Inspection and calibration dates, times, and results will be documented on the permit.
- All other equipment that will be used for the permit space entry will be inspected by affected workers before entry operations begin. **(Competent Person Name)** will also ensure that all affected workers receive training on the safe and effective use of all necessary equipment, and that it is properly used during entry operations. Defective equipment will be immediately replaced. At a minimum, the following equipment will be assembled for the permit-space entry:
 - Calibrated direct reading instrument for testing and monitoring;
 - Ventilation equipment;
 - Communications equipment;
 - Calibrated direct reading personal monitors with warning alarms for each entrant;
 - Standard PPE;
 - Additional PPE required when engineering controls alone are insufficient;
 - Lighting equipment providing at least 5 foot-candles in each entrant's general work area;
 - Non-spark tools (where applicable);

- Barriers and shields;
 - Equipment for safe entry and exit;
 - Rescue and emergency equipment; and
 - Any other equipment necessary for safe entry operations.
- All testing and monitoring equipment, communications equipment, lighting equipment, and any other electronic equipment will be rated Class 1 Division 1 (intrinsically safe) when testing shows that flammable gases/vapors/mists could be present. Non-spark tools will be used in the space under these conditions and hot work is prohibited.

Training for Authorized Entrants

- All authorized entrants are trained on:
- Identification of confined space hazards;
 - Proper use of testing and monitoring equipment;
 - Isolation and control of atmospheric hazards;
 - Proper use of ventilation equipment;
 - Isolation and control of physical hazards;
 - Proper use of barriers, shields, and lockout equipment;
 - Surveillance of areas outside the space for hazard avoidance;
 - Safe entry procedures;
 - Proper use of equipment used for entry and exit;
 - Proper use of communications equipment;
 - Proper selection and use of personal protective equipment;
 - Proper selection and use of lighting equipment;
 - Rescue and emergency response procedures;
 - Proper use of rescue and emergency response equipment;
 - Proper use of any other necessary equipment;
 - Duties of the attendants;
 - How/when to communicate with the attendants and when to alert them;
 - When to evacuate the permit space; and
 - All additional requirements regarding welding, cutting, or heating inside a space.

Training for Attendants

- All attendants are trained on:
 - Identification of confined space hazards;
 - Proper use of testing and monitoring equipment;
 - Possible behavioral effects of hazard exposure in the entrants;
 - Methods for maintaining an accurate account of all entrants;
 - Isolation and control of atmospheric hazards;
 - Proper use of ventilation equipment;
 - Assessing activities inside the space to ensure it remains safe for entry;
 - Surveillance of areas outside the space for confined space hazard avoidance;
 - Safe entry procedures;
 - Proper use of equipment used for entry and exit;
 - Proper use of communications equipment;
 - How/when to communicate with entrants and when to alert them;
 - When to evacuate entrants;
 - Rescue and emergency response responsibilities;
 - Non-entry rescue and emergency response procedures;
 - Proper use of non-entry rescue and emergency response equipment;
 - When and how to summon rescue and emergency response services;
 - Responsibilities for maintaining an accurate account of all entrants;
 - How to handle unauthorized persons approaching/entering the permit space; and
 - All additional requirements regarding welding, cutting, or heating inside a space.
- Training is presented in a language and vocabulary that each affected worker can understand. All affected workers will be required to show proficiency in their confined space-related duties.
- Training is provided to each affected worker:
 - Before they are assigned duties associated with confined spaces;
 - Before there are changes to assigned duties;
 - Whenever there is a change in entry operations that presents an unfamiliar hazard; and
 - Whenever there is any deviation from the entry procedures.

Designation of Responsibilities

- Individuals with designated permit-required space entry responsibilities are listed on the permit. Their training credentials have been verified by (Name of the Company Officer Authorized to Make the Designations).

Rescue and Emergency Services

- (Entry Supervisor Name) will verify that rescue and emergency response services have been established for the permit space in case entry rescue becomes necessary. The name and contact information for rescue and emergency response services will be shown on the permit, which will be posted at the permit space entry portal.
- (Competent Person Name) and (Attendant Name) will have the rescue and emergency response telephone number programmed into their mobile phones, which will be on their person and readily accessible at all times during entry operations. If a rescue or emergency response situation occurs during entry operations (Attendant Name) will immediately call the designated service and then immediately inform by mobile phone or radio, (Competent Person Name) and (Entry Supervisor Name).
- (Attendant Name) has received training on the importance of self-restraint from attempting an entry rescue, and is responsible for ensuring that no one attempts an unauthorized entry rescue.

Entry Permit

- (Competent Person Name) will prepare a permit for entry into the permit space, and have the permit approved and signed by (Entry Supervisor Name). The permit will be posted outside the space at the entry portal. When necessary, the posted permit will be protected from weather conditions such as wind and rain.

Verification of Safe Entry Conditions

- Immediately prior to entry, the permit space conditions will be carefully evaluated by (Competent Person Name). He will:
 - Review acceptable entry conditions with all affected workers;
 - Verify that the permit space will be tested again immediately before entry;
 - Verify that testing, monitoring and early hazard warning procedures are properly prepared;
 - Verify that airborne combustible dust is not present in concentrations that obscure visibility at 5' of distance or less;
 - Verify that air used in mechanical ventilation systems is fresh air;
 - Verify isolation of the permit space and any physical hazards inside the space, which may include converging walls, sloping floors, engulfment, excessive noise,



excessive heat, excessive cold, exposure to moving or rotating mechanical parts, hazardous chemical substances, and any other recognized physical hazards;

- Verify that all energy sources have been disconnected and/or locked out (electrical, hydraulic, mechanical, pneumatic, stored energy);
 - Verify that all pipes, pumps, or lines are disconnected, shutdown and locked/tagged out, or otherwise effectively isolated;
 - Verify that the barriers necessary to protect entrants from potential hazards outside the space are properly established;
 - Verify that the correct tools have been selected for the job (non-spark, intrinsically safe, etc.);
 - Verify that all entrants are equipped with properly calibrated personal monitoring devices that will alert them in time to allow for successful evacuation of the space if a hazardous atmospheric condition occurs during entry operations;
 - Verify that all entrants are equipped with a full body harness;
 - Verify that an acceptable retrieval device for non-entry rescue is in place, working properly, and properly attached to the entrant(s) full body harness;
 - Verify that all affected workers have properly working communications equipment; and
 - Verify that appropriate rescue and emergency response procedures are in place.
- **(Entry Supervisor Name)** will suspend the entry permit anytime entry conditions change making them temporarily unsafe for entry, or will cancel the entry permit anytime entry conditions change and the changes resulting in unsafe entry conditions are not temporary.
- When one or more authorized entrants from another company will be working in the space at the same time (**(Company Name's)** authorized entrants will be working in the space, **(Entry Supervisor Name)** will arrange a safety coordination meeting with the controlling contractor and the other affected contractors' entry supervisors. This meeting will take place prior to entry, and all agreed-upon safety procedures will be carefully documented and retained by **(Entry Supervisor Name)**.

During Entry

Confirmation of Ongoing Safe Entry Evaluations

- During entry operations **(Competent Person Name)** will verify with **(Attendant Name)** that:
- An adequate, properly arranged general mechanical or local exhaust system is used whenever welding, cutting, or heating is performed inside the space, and at



all other times that the system is necessary to keep oxygen levels, toxic air contaminants, and flammable/combustible gases within safe limits.

- He is performing continuous atmospheric monitoring at all applicable levels both vertical and horizontal;
 - He is continuously evaluating conditions inside and outside the space for potential hazards;
 - He is communicating frequently with the authorized entrants;
 - The authorized entrants are performing continuous personal atmospheric monitoring throughout entry operations;
- If it becomes apparent during entry operations that measures taken to protect authorized entrants from confined space hazards may not provide adequate protection, **(Competent Person Name)** will evacuate the space immediately, secure it from unauthorized entry, and meet with **(Entry Supervisor Name)** to review entry operations and revise the permit space program as necessary.

Completed Entry Operations

Cancellation of Entry Permit

- **(Entry Supervisor Name)** will terminate entry and cancel the entry permit when entry operations are completed by meeting at the space with **(Competent Person Name)** to:
- Verify that authorized entrants have removed all equipment and materials and have exited the space;
 - Verify that the confined space entry portal has been closed and the portal is locked, or the cover replaced, as applicable;
 - Verify that there is a permanent, legible “**DANGER—PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER.**” sign at the entry portal;
 - Verify that the permit posted at the portal has been removed;
 - Write the time and date the entry was cancelled on the permit;
 - Sign the cancelled permit (Entry Supervisor and Competent Person); and
 - Verify that all affected workers have been informed that the permit has been cancelled.

(Entry Supervisor Name) will review each cancelled permit within one week of each entry cancellation, and make appropriate revisions to this permit-space program as necessary.

Appendices

Appendix I – Confined Space Entry Preparation Checklist

Jobsite Name _____

Confined Space Location/Identification

Preparation

- ☐ Competent person designated to evaluate the space
- ☐ Acceptable entry conditions reviewed with authorized entrants and attendant
- ☐ Unsafe conditions for removing entrance cover eliminated
- ☐ Entrance openings guarded
- ☐ Barriers established
- ☐ “**DANGER—PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER**” signs posted at entrance portal
- ☐ Workers/authorized representatives informed about permit space
- ☐ Controlling employer informed about permit space
- ☐ Completed/signed permit posted at entry portal

Confined Space Atmosphere

- ☐ Direct reading test instrument properly calibrated
- ☐ Oxygen content between 19.5% and 23.5%
- ☐ Flammable gases/vapors/mists 10% or less of LFL
- ☐ Toxic air contaminant concentrations at or below allowable/safe levels/PPM
- ☐ Airborne combustible dust within acceptable range (vision not obscured by dust at 5’ distance or less)
- ☐ All test results documented

Safe Entry Conditions Verification

- ☐ Safe method to enter/egress established
- ☐ Space clear of all materials that could engulf entrants
- ☐ Entrant(s) protected from entrapment
- ☐ Energy sources disconnected or locked/tagged out

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- ☐ Pumps, pipes, lines disconnected, shutdown and locked/tagged out or otherwise isolated
 - ☐ Space clear of all recognized physical hazards
 - ☐ Forced air ventilation source determined to be fresh air
 - ☐ Forced air ventilation set to ventilate immediate work area
 - ☐ Forced air ventilation eliminates all atmospheric hazards
 - ☐ Forced air ventilation continuous
 - ☐ Standard PPE—full body harness, hardhat, safety glasses, gloves, protected-toe boots and ear plugs (if applicable)
 - ☐ Personal monitor with hazard alert alarms for each entrant
 - ☐ Attendant monitor for continuous monitoring
 - ☐ All monitors properly calibrated
 - ☐ Communications equipment for each entrant and attendant
 - ☐ Adequate lighting (5 foot-candles minimum in immediate work areas)
 - ☐ Electronic equipment (monitors, radios, lights, etc.) is Class 1 Division 1 (where applicable)
 - ☐ Non-spark tools (where applicable)
 - ☐ Hot work (welding, cutting, heating) permit (where applicable)
 - ☐ Respiratory protection (where applicable)

Rescue

- ☐ Non-entry rescue equipment (retrieval device, mobile phone, first aid kit, etc.) in place
- ☐ Rescue/emergency response service established
- ☐ Rescue/emergency response service's emergency telephone number readily accessible

Permit

- ☐ Permit completed
- ☐ Permit signed/dated by entry supervisor
- ☐ Permit cancelled and signed/dated by entry supervisor and competent person

Appendix II – Confined Space Entry Permit (Model)

(Entry Employer Name)

Confined Space Entry Permit for Construction Operations

Job Name _____

Permit Date _____ Permit Valid _____ to _____

Permit-Required Confined Space Location _____

Purpose for Entry/Mechanical Construction Work to be Performed _____

Rescue/Emergency Response Services – Emergency Phone # _____

Other Contact Information

	Contact Name	Mobile Phone #
Entry Supervisor		
Competent Person		
Host Employer		
Controlling Contractor		
Authorized Entrant		
Authorized Entrant		
Authorized Entrant		
Attendant		

Gas Test/Instrument Information

Brand	
Model	
Serial Number	
Last Calibration Date	
Calibration Performed By	

Initial Atmospheric Testing/Permit Space Atmosphere in Natural State/ No Ventilation

Time/Date of Atmospheric Check _____

Oxygen % _____ (*must be between 19.5% and 23.5% to allow entry*)

Flammable Gas/Vapor Type _____
% (LFL) _____ (*must be 0% LFL to allow entry*)

Toxic Air Contaminant Type _____

PPM _____ Allowable/Safe PPM _____

Competent Person Signature _____

Safe Entry Conditions Verification

	YES	NO	N/A
Space clear of atmospheric hazards?	<input type="checkbox"/>	<input type="checkbox"/>	
Space clear of all materials that could engulf entrants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entrant(s) protected from entrapment by inwardly converging walls or downwardly sloping floors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All energy sources disconnected and/or locked/tagged out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All pumps, pipes, or lines disconnected, shut down and locked/tagged out or otherwise isolated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Space cleared of all recognized safety and health hazards?	<input type="checkbox"/>	<input type="checkbox"/>	
Airborne combustible dust below LFL (vision is clear at 5' or less)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Controls

	YES	NO	N/A
Standard PPE (full body harness, hardhat, safety glasses, gloves, protected-toe boots and ear plugs, if applicable) in place?	<input type="checkbox"/>	<input type="checkbox"/>	
Personal monitor with hazard alert alarms for each entrant?	<input type="checkbox"/>	<input type="checkbox"/>	
Attendant monitor for continuous monitoring?	<input type="checkbox"/>	<input type="checkbox"/>	
Monitors properly calibrated?	<input type="checkbox"/>	<input type="checkbox"/>	
Communications equipment for each entrant and attendant?	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate lighting (5 foot-candles minimum in work areas)?	<input type="checkbox"/>	<input type="checkbox"/>	
Ventilation equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ventilation air source clean/fresh?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic equipment is Class 1 Division 1 (if applicable)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-spark tools? (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot work permit? (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory protection type?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, specify			

Rescue

	YES	NO	N/A
Non-entry rescue equipment is readily available?	<input type="checkbox"/>	<input type="checkbox"/>	
Rescue/emergency response established?	<input type="checkbox"/>	<input type="checkbox"/>	
Rescue/emergency response emergency contact number received?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, specify			

Multi-Employer Worksites

	YES	NO	N/A
All affected employers properly informed?	<input type="checkbox"/>	<input type="checkbox"/>	

Special Requirements**Entry Permit Cancellation**

	Signature	Time/Date
Entry Supervisor		
Competent Person		

Appendix III – Side-by-Side Comparison of Key Differences Between OSHA’s Construction and General Industry Standards

1926 – Construction	1910 – General Industry
<p>{Scope} 1926.1201 (a) <i>This standard sets forth requirements for practices and procedures to protect employees engaged in construction activities at a worksite with one or more confined spaces, subject to the exceptions in paragraph (b) of this section.</i></p>	<p>{Scope and Application} 1910.146 (a) <i>This section contains requirements for practices and procedures to protect employees in general industry from the hazards of entry into permit-required confined spaces. This section does not apply to agriculture, to construction, or to shipyard employment (parts 1928, 1926, and 1915 of this chapter, respectively).</i></p>
<p>{General Requirements} 1926.1203(a) <i>Before it begins work at a worksite, each employer must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary.</i></p>	<p>{General Requirements} 1910.146(c)(1) <i>The employer shall evaluate the workplace to determine if any spaces are permit-required spaces.</i></p>
<p>{General Requirements} 1926.1203(b) <i>If the workplace contains one or more permit spaces, the employer who identified, or who receives notice of, a permit space must:</i></p> <p style="padding-left: 40px;">(1) <i>Inform exposed employees by posting danger signs or by any other equally effective means, of the existence and location of, and the danger posed by, each permit space; and</i></p> <p>Note to paragraph 1926.1203 (b)(1): <i>A sign reading “DANGER—PERMIT REQUIRED CONFINED SPACE, DO</i></p>	<p>{General Requirements} 1910.146(c)(2) <i>If the workplace contains permit spaces, the employer shall inform exposed employees, by posting danger signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces.</i></p> <p>Note: <i>A sign reading: “DANGER—PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER” or using other similar language would satisfy the requirement for a sign.</i></p>

<p><i>NOT ENTER” or using other similar language would satisfy the requirement for a sign.</i></p> <p><i>(2) Inform, in a timely manner and in a manner other than posting, its employees’ authorized representatives and the controlling contractor of the existence and location of, and the danger posed by, each permit space.</i></p>	
<p>{General Requirements} 1926.1203(d) <i>If any employer decides that employees it directs will enter a permit space, that employer must have a written permit space program that complies with 1926.1204 implemented at the construction site. The written program must be made available prior to and during entry operations for inspection by employees and their authorized representatives.</i></p>	<p>{General Requirements} 1910.146(c)(4) <i>If the employer decides that its employees will enter permit spaces, the employer shall develop and implement a written permit space program that complies with this section. The written program shall be available for inspection by employees and their authorized representatives.</i></p>
<p>{General Requirements} 1926.1203(e)(1)(i) {Alternate procedures for entry} <i>The employer can demonstrate that all physical hazards in the space are eliminated or isolated through engineering controls so that the only hazard posed by the permit space is an actual or potential hazardous atmosphere.</i></p>	<p>{General Requirements} No corresponding paragraph</p>
<p>{General Requirements} 1926.1203(e)(1)(ii) {Alternate procedures for entry} <i>The employer can demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry, and that, in the event the ventilation system stops working, entrants can exit the space safely.</i></p>	<p>{General Requirements} 1910.146(c)(5)(i)(B) {Alternate procedures for entry} <i>The employer can demonstrate that forced air ventilation alone is sufficient to maintain that space safe for entry.</i></p>
<p>{General Requirements} 1926.1203(e)(2)(v)(A) {Alternate procedures for entry} <i>An employee must not enter the space until the forced air ventilation has eliminated any hazardous atmosphere.</i></p>	<p>{General Requirements} 1910.146(c)(5)(ii)(E)(1) {Alternate procedures for entry} <i>An employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere.</i></p>

<p>{General Requirements} 1926.1203(e)(2)(viii) {Alternate procedures for entry} <i>The employer must ensure a safe method of entering and exiting the space. If a hoisting system is used, it must be designed and manufactured for personnel hoisting; however, a job-made hoisting system is permissible if it is approved for personnel hoisting by a registered professional engineer in writing prior to use.</i></p>	<p>{General Requirements} No corresponding paragraph</p>
<p>{General Requirements} 1926.1203(e)(2)(vi) {Alternate procedures for entry} <i>The atmosphere within the space must be continuously monitored unless the entry employer can demonstrate that equipment for continuous monitoring is not commercially available or periodic monitoring is sufficient. If continuous monitoring is used, the employer must ensure that the monitoring equipment has an alarm that will notify entrants if a specified atmospheric threshold is achieved, or that an employee will check the monitor with sufficient frequency to ensure that entrants have adequate time to escape. If continuous monitoring is not used, period monitoring is required. All monitoring must ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters a space, or that employee's authorized representative, must be provided with an opportunity to observe the testing required by this paragraph (e)(2)(vi).</i></p>	<p>{General Requirements} 1910.146(C)(5)(ii)(F) <i>The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the space, or that employee's authorized representative, shall be provided with an opportunity to observe the periodic testing required by this paragraph.</i></p>
<p>{General Requirements} 1926.1203(g)(2) {Reclassification of permit space as non-permit space} <i>The entry employer must eliminate or isolate the hazards without entering the space, unless it can demonstrate that this is infeasible. If it is necessary to enter the permit space to eliminate or isolate hazards, such entry must be performed</i></p>	<p>{General Requirements} 1910.146(C)(7)(ii) <i>If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed under paragraphs (d) through (k) of this section. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space</i></p>

<p><i>under 1926.1204 through 1211 of this standard. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated or isolated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated or isolated.</i></p>	<p><i>may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.</i></p>
<p><i>{General Requirements}</i> <i>1926.1203(h)</i> <i>Permit Space Entry Communication and Coordination:</i></p> <ul style="list-style-type: none"> <i>(1) Before entry operations begin, the host employer must provide the following information, if it has it, to the controlling contractor:</i> <ul style="list-style-type: none"> <i>(i) The location of each known permit space;</i> <i>(ii) The hazards or potential hazards in each space or the reason it is a permit space; and</i> <i>(iii) Any precautions that the host employer or any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.</i> <i>(2) Before entry operations begin, the controlling contractor must:</i> <ul style="list-style-type: none"> <i>(i) Obtain the host employer's information about the permit space hazards and previous entry operations; and</i> <i>(ii) Provide the following information to each entity entering a permit space and any other entity at the worksite whose activities could foreseeably result in a hazard in the permit space:</i> <ul style="list-style-type: none"> <i>(A) The information received from the host employer;</i> 	<p><i>{General Requirements}</i> <i>1910.146(c)(8)</i> <i>When an employer (host employer) arranges to have employees of another employer (contractor) perform work that involves permit space entry, the host employer shall:</i></p> <ul style="list-style-type: none"> <i>(i) Inform the contractor that the workplace contains permit-spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section:</i> <i>(ii) Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space;</i> <i>(iii) Apprise the contractor of any precautions or procedures that the host employer has implemented for the protection of employees in or near permit spaces where contractor personnel will be working;</i> <i>(i) Coordinate entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces, as required by paragraph (d)(11) of this section; and</i> <i>(ii) Debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and</i>

<p>(B) Any additional information the controlling contractor has about the subjects listed in paragraph (h)(1) of this section; and</p> <p>(C) The precautions that the host employer, controlling contractor, or other entry employers implemented for the protection of employees in the permit spaces.</p> <p>(3) Before entry operations begin, each entry employer must:</p> <ul style="list-style-type: none"> (i) Obtain all of the controlling contractor's information regarding permit space hazards and entry operations; and (ii) Inform the controlling contractor of the permit space program that the entry employer will follow, including any hazards likely to be confronted or created in each permit space. <p>(4) The controlling contractor and entry employer(s) must coordinate entry operations when:</p> <ul style="list-style-type: none"> (i) More than one entity performs permit space entry at the same time; or (ii) Permit space entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed. 	<p>regarding any hazards confronted or created in permit spaces during entry operations.</p>
<p>{General Requirements} 1926.1203(i) <i>If there is no controlling contractor present at the worksite, the requirements for, and role of, controlling contractors in this section must be fulfilled by the host</i></p>	<p>{General Requirements} No corresponding paragraph</p>

<i>employer or other employer who arranges to have employees of another employer perform work that involves permit space entry.</i>	
<i>{Permit-Required Confined Space Program}</i> <i>1926.1204(c)(5)</i> <i>Determining that, in the event the ventilation system stops working, the monitoring procedures will detect an increase in atmospheric hazard levels in sufficient time for the entrants to safely exit the permit space;</i>	<i>{Permit-Required Confined Space Program}</i> <i>No corresponding paragraph</i>
<i>{Permit-Required Confined Space Program}</i> <i>1926.1204(c)(8)</i> <i>Eliminating any conditions (for example, high pressure) that could make it unsafe to remove an entrance cover.</i>	<i>{Permit-Required Confined Space Program}</i> <i>No corresponding paragraph</i>
<i>{Permit-Required Confined Space Program}</i> <i>1926.1204(e)(1)</i> <i>Test conditions in the permit space to determine if acceptable entry conditions exist before changes to the space's natural ventilation are made, and before entry is authorized to begin, except that , if an employer demonstrates that isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), the employer must:</i> <ul style="list-style-type: none"> <i>(i) Perform pre-entry testing to the extent feasible before entry is authorized; and,</i> <i>(ii) If entry is authorized, continuously monitor entry conditions in the areas where authorized entrants are working, except that employers may use periodic monitoring in accordance with paragraph (e)(2) of this section for monitoring an atmospheric hazard if they can demonstrate that equipment for continuously monitoring the hazard is not</i> 	<i>{Permit-Required Confined Space Program}</i> <i>1910.146(d)(5)(i)</i> <i>Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing shall be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the areas where authorized entrants are working;</i>

<i>commercially available;</i>	
{Permit-Required Confined Space Program} 1926.1204(e)(1)(iii) <i>Provide an early-warning system that continuously monitors for non-isolated engulfment hazards. The system must alert authorized entrants and attendants in sufficient time for the authorized entrants to safely exit the space.</i>	{Permit-Required Confined Space Program} No corresponding paragraph
{Permit-Required Confined Space Program} 1926.1204(e)(2) <i>Continuously monitor atmospheric hazards unless the employer can demonstrate that the equipment for continuously monitoring a hazard is not commercially available or that periodic monitoring is of sufficient frequency to ensure that the atmospheric hazard is being controlled at safe levels. If continuous monitoring is not used, periodic monitoring is required with sufficient frequency to ensure that acceptable entry conditions are being maintained during the course of entry operations;</i>	{Permit-Required Confined Space Program} 1910.146(d)(5)(ii) <i>Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations;</i>
{Permit-Required Confined Space Program} 1926.1204(f)(1) <i>Attendants may be assigned to more than one permit space provided the duties described in 1926.1209 can be effectively performed for each permit space.</i>	{Permit-Required Confined Space Program} 1910.146(d)(6) (Note) <i>Attendants may be assigned to monitor more than one permit space provided the duties described in paragraph (i) of this section can be effectively performed for each permit space that is monitored. Likewise, attendants may be stationed at any location outside the permit space to be monitored as long as the duties described in paragraph (i) of this section can be effectively performed for each permit space that is monitored.</i>

<p><i>{Permitting Process}</i> <i>1926.1205 (e)(2)</i> <i>Suspend or cancel the entry permit and fully reassess the space before allowing reentry when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is temporary in nature and does not change the configuration of the space or create any new hazards within it;</i></p>	<p><i>{Permit System}</i> <i>No corresponding paragraph</i></p>
<p><i>{Entry Permit}</i> <i>1926.1206(e)</i> <i>Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working;</i></p>	<p><i>{Entry Permit}</i> <i>No corresponding paragraph</i></p>
<p><i>{Training}</i> <i>1926.1207(b)</i> <i>Training required by this section must be provided to each affected employee:</i></p> <ol style="list-style-type: none"> <i>1. In both a language and vocabulary that the employee can understand;</i> <i>2. Before the employee is first assigned duties under this standard;</i> <i>3. Before there is a change in assigned duties;</i> <i>4. Whenever there is a change in permit space entry operations that present a hazard about which an employee has not previously been trained; and</i> <i>5. Whenever there is evidence of a deviation from the permit space entry procedures required by 1926.1204(c) or there are inadequacies in the employee's knowledge or use of these procedures.</i> 	<p><i>{Training}</i> <i>1910.146 (g)(2)</i> <i>Training shall be provided to each affected employee:</i></p> <ol style="list-style-type: none"> <i>(i) Before the employee is first assigned duties under this section;</i> <i>(ii) Before there is a change in assigned duties;</i> <i>(iii) Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained;</i> <i>(iv) Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures required by paragraph (d)(3) of this section or that there are inadequacies in the employee's knowledge or use of these procedures.</i>

<p>{Training} 1926.1207(d) <i>The employer must maintain training records to show that the training required by paragraphs (a) through (c) of this section has been accomplished. The training records must contain each employee's name, the name of the trainers, and the dates of training. The documentation must be available for inspection by employees and their authorized representatives, for the period of time the employee is employed by that employer.</i></p>	<p>{Training} 1910.146(g)(4) <i>The employer shall certify that the training required by paragraphs (g)(1) through (g)(3) of this section has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.</i></p>
<p>{Rescue and Emergency Services} 1926.1211(a)(3) <i>Select a rescue team or service from those evaluated that:</i></p> <ul style="list-style-type: none"> (i) <i>Has the capacity to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;</i> (ii) <i>Is equipped for, and proficient in, performing the needed rescue services;</i> (iii) <i>Agrees to notify the employer immediately in the event that the rescue service becomes unavailable;</i> 	<p>{Rescue and Emergency Services} 1910.146(k)(1)(iii) <i>Select a rescue team or service from those evaluated that:</i></p> <ul style="list-style-type: none"> A. <i>Has the capacity to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;</i> B. <i>Is equipped for and proficient in performing the needed rescue services;</i>
<p>{Rescue and Emergency Services} 1926.1211(b)(4) <i>Ensure that affected employees practice making permit space rescues before attempting an actual rescue, and at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces, except practice rescue is not required where the affected employees properly performed a rescue operation during the last 12 months in the same permit space the authorized entrant will enter, or in a similar permit space. Representative permit spaces must,</i></p>	<p>{Rescue and Emergency Services} 1910.146(k)(2)(iv) <i>Ensure that affected employees practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.</i></p>

<p><i>with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.</i></p>	
<p><i>{Rescue and Emergency Services}</i> <i>1926.1211(c)(3)</i> <i>Equipment that is unsuitable for retrieval must not be used, including, but not limited to, retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other authorized entrants, or retrieval lines that will not work due to the internal configuration of the permit space.</i></p>	<p><i>{Rescue and Emergency Services}</i> <i>No corresponding paragraph</i></p>

Appendix IV - Summary of OSHA's Confined Spaces in Construction Standard

Following is a summary of OSHA's standard on Confined Spaces in Construction. It is provided so that members can obtain a quick cursory understanding of what will be required to comply with the standard. Some important details have been omitted, so be sure to read the actual standard in its entirety while developing your company's Confined Spaces in Construction program and applicable company policies, procedures, materials and training programs.

General Requirements (1926.1203)

- Employers must ensure that a competent person identifies all of the confined spaces that company workers may enter.
- A competent person is required to perform evaluations to identify all of the permit confined spaces.
- Where permit confined spaces exist, the employer must:
 - Inform all affected workers by posting danger signs or equivalent means;
 - Inform affected workers' authorized representatives about the spaces, their locations, and potential dangers; and
 - Inform the controlling employer about the spaces, their locations, and potential dangers.
- Employers must ensure that workers who are not authorized to enter into confined spaces do not enter the spaces, and comply with other applicable requirements of the standard.
- A comprehensive permit space program, as described in the standard, must be in place before affected workers are allowed to enter into permit spaces.
- Under specified conditions employers may proceed with permit space entry using alternate procedures in lieu of the procedures established in the written program.
- The conditions for using the alternate procedures include:
 - All physical hazards in the space must be eliminated or isolated with engineering controls so that the only potential hazard is atmospheric;
 - Continuous forced air ventilation alone must maintain the space safe for entry;
 - Monitoring and inspection data must support that the physical hazards are safely eliminated or isolated, and that the only potential hazard is atmospheric;
 - When entry is required to obtain monitoring and inspection data, permit space program procedures must be used;

- Supporting monitoring and inspection data must be carefully documented and made available to affected workers;
- Conditions making it unsafe to remove an entrance cover must be eliminated before the cover is removed;
- When entrance covers are removed, the opening must be immediately guarded by a railing or equivalent alternative;
- The internal atmosphere must be tested before entry with a calibrated direct-reading instrument for oxygen content, flammable gases/vapors/mists, and toxic air contaminants, in that order;
- There must be no hazardous atmosphere when a worker is inside the space;
- Continuous forced air ventilation must be used before entry to eliminate any hazardous atmosphere, and it must be directed to the immediate work areas;
- The air supply for forced air ventilation must be from a clean source;
- The atmosphere in the space must be monitored continuously unless the entry employer determines that monitoring equipment is not commercially available or that periodic monitoring is sufficient;
- When continuous monitoring is performed, the monitoring equipment must have alarms that notify affected entrants of hazardous atmospheric changes or a worker must check the monitor frequently to ensure that all entrants have time to escape should hazardous atmospheric changes develop;
- When continuous monitoring is not used, periodic monitoring must be performed;
- If a hazard is detected during monitoring, each worker must exit the space immediately, the space must be evaluated to determine how the hazard developed, and the space must be made safe to enter before re-entry occurs;
- A safe means of entering and exiting the space must be established; and
- The employer must verify that the space is safe for entry, and that established pre-entry procedures have been implemented through a written certification.
- The designated competent person must re-evaluate the space, and re-classify it if necessary, when changes in configuration or use could increase the hazards.
- Permit spaces may only be reclassified as non-permit spaces when the designated competent person determines that all requirements established in the standard have been met, including:
 - No atmospheric hazards exist and all hazards inside the space are eliminated or isolated without entry, and non-atmospheric hazards remain eliminated or isolated;
 - The hazards must be eliminated or isolated without entry (if entry is required, the written permit-required confined space procedures must be followed);

- The basis for determining that all hazards in the permit space have been eliminated or isolated must be carefully documented through an established certification process; and
- If hazards arise in a permit space that has been re-classified as a non-permit space, all workers must exit the space and the space must be re-evaluated and re-classified as a permit space when necessary.
- Prior to entry into a permit space, the host employer must provide the controlling contractor with the location of each space, the hazards or potential hazards of each space, and any precautions taken by the host employer or any previous controlling or entry employer for affected worker protection.
- In advance of entry, the controlling contractor must obtain the host employer's information about the permit space hazards and previous entry operations, and provide the following information to each entity at the worksite who could be affected by a hazard in the permit space:
 - The information received from the employer;
 - Any additional pertinent information from the controlling contractor; and
 - Any precautions implemented by the host employer, controlling contractor, or other entry employers.
- Before entry, each entry employer must obtain all of the controlling contractor's information regarding permit space hazards and entry operations, and inform the controlling contractor of the permit space program he intends to follow.
- The controlling contractor and entry employer must coordinate entry operations when more than one entity performs permit space entry at the same time, or the permit space entry is performed at the same as another activity that could result in a hazard in the permit space.
 - The controlling contractor must debrief each entry entity regarding the permit space program that was followed, and any hazards that were confronted or created during the entry.
 - When there is no controlling contractor at the worksite, the controlling contractor requirements established in the standard must be executed by the host employer or another designated employer.

Permit-Required Confined Space Program (1926.1204)

Each entry employer must do the following:

- Prevent unauthorized entry and identify and evaluate the hazards of permit spaces before workers enter.
- Establish and implement safe permit space entry operations, including:

- Specifying acceptable entry conditions;
 - Providing each entrant or their authorized representative the opportunity to observe any monitoring or testing of the permit space;
 - Isolating the permit space and any physical hazards inside the space;
 - Purging, inerting, flushing or ventilating the permit space to eliminate or control atmospheric hazards;
 - Ensuring that if the ventilation system stops working the monitoring procedures will detect an increase in atmospheric hazards in time to allow entrants to safely exit the space;
 - Providing barriers as necessary to protect entrants from external hazards such as vehicles and pedestrians;
 - Verifying that conditions in the space are acceptable for entry throughout the duration of the entry; and
 - Eliminating any conditions that could make it unsafe to remove an entry cover.
- Provide the following equipment:
- Testing and monitoring equipment;
 - Ventilation equipment;
 - Communications equipment;
 - Personal protective equipment;
 - Lighting equipment (based on OSHA's *Illumination* standard for construction);
 - Barriers and shields;
 - Equipment for safe entry and exit;
 - Rescue and emergency equipment; and
 - Any other equipment needed to ensure safe entry and exit.
- Evaluate permit space conditions in accordance with the following conditions:
- Permit space conditions must be tested to determine whether acceptable entry conditions exist before changes to the space's natural ventilation are made, and before entry;
 - If isolation of the space is infeasible, the entry employer must perform pre-entry testing to the extent feasible, and implement other established monitoring and early warning procedures throughout the entry;
 - When testing atmospheric levels, tests must occur in this order: oxygen content, flammable gases/vapors/mists, and then toxic air contaminants;

- Reevaluate the permit space when an entrant or his authorized representative request such an evaluation; and
- Provide any testing results to the requesting entrant or authorized representative immediately upon request.
- Provide at least one attendant outside the permit space into which entry is authorized for the duration of entry operations.
- Ensure that attendants who are responsible for more than one space at the same time include in their permit space program the means and procedures to ensure that the attendant can effectively respond to emergencies affecting one or more of the spaces.
- Designate each person with an active role (entrants, attendants, entry supervisors, etc.) in the entry and ensure that each designated person has the required training.
- Develop and implement procedures for summoning rescue and emergency services.
- Develop and implement a system for preparation, issuance, use and cancellation of entry permits.
- Develop and implement procedures to coordinate entry operations in consultation with the controlling contractor when workers of more than one employer are working simultaneously in a permit space or elsewhere on the worksite where their activities could result in a hazard within the space.
- Develop and implement procedures for concluding the entry after entry operations have been completed.
- Review entry operations when measures in the permit space program may not provide adequate worker protection, and correct deficiencies before subsequent entries are authorized.
- Review the permit space program using the canceled permits within one year after each entry, and revise the program as necessary to ensure that affected workers are protected from permit space hazards.

Permitting Process (1926.1205)

- Prior to entry, each entry employer must prepare an entry permit to document completion of the procedures established in the permit-required confined space program.
- Prior to entry the entry supervisor must sign the entry permit.
- The completed permit must be made available at the time of entry to all entrants or their authorized representatives by posting it at the entry portal or equivalent means.
- The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit.
- The entry supervisor must terminate entry and take the following measures when necessary:

- Cancel the entry permit when the operations covered by the permit are completed; and
 - Suspend or cancel the permit and reassess the space before entry when a condition not allowed under the permit arises in or near the permit space, and the condition is temporary in nature and does not change the configuration of the space or create new hazards.
- The entry employer must retain each canceled entry permit for at least one year.

Entry Permit (1926.1206)

- The space entry permit must identify all of the following:
- The permit space to be entered;
 - The purpose of the entry;
 - The date and authorized duration of entry;
 - The authorized entrants by name or equivalent means;
 - Means of detecting increases in atmospheric hazard levels if the ventilation system fails;
 - The names of each person serving as an attendant;
 - The name of the entry supervisor;
 - The hazards in the permit space;
 - The measures used to isolate the permit space, and to eliminate or control permit space hazards before entry;
 - Acceptable entry conditions;
 - The results of tests and monitoring;
 - The rescue and emergency services that can be summoned if necessary, and the means (equipment used to summon and numbers to call) for summoning the services;
 - The communications procedures by entrants and attendants to maintain contact during entry;
 - The equipment that will be used such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment;
 - Any other necessary information; and
 - Any additional permits (i.e., hot work permits).

Training (1926.1207)

- Each entry employer must provide training to each worker whose work is regulated under the standard.
- The training must result in the understanding of the hazards in the permit space, and the methods used to isolate, control, or in other ways protect all affected workers from the hazards (including those workers who will not enter the space).
- Training must be provided to each affected worker as follows:
 - In a language and with vocabulary the worker can understand;
 - Before the worker is assigned duties covered by the standard;
 - Before there are any changes in assigned duties;
 - Whenever there is a change in permit space entry operations that presents a hazard about which the worker has never been trained; and
 - Whenever there is evidence of a deviation from the permit space entry procedures.
- The training must establish employee proficiency in the duties required by the standard, and must introduce new and revised procedures as necessary.
- Each entry employer must maintain training records to show that the training requirements have been met.

Duties of Authorized Entrants (1926.1208)

Each entry employer must ensure the following:

- Entrants are familiar with and understand the hazards that may be faced during entry;
- Proper use of the equipment that will be used as established by the permit-required confined space program; and
- Communication with the attendant(s) as necessary so that the attendant(s) can assess the entrant(s)' status, and alert entrant(s) to evacuate if necessary.
- Entrants must alert the attendant whenever there is a warning sign or symptom of exposure to danger, or when the entrant detects a prohibited condition.
- Entrants must exit the space as quickly as possible whenever any of the following occur:
 - An order to evacuate is given by the attendant(s) or entry supervisor;
 - There is a warning sign or symptom of exposure to a dangerous situation;
 - The entrant detects a prohibited condition; or

- An evacuation alarm is activated.

Duties of Attendants (1926.1209)

- Each entry employer must ensure that each attendant:
 - Is familiar with and understands the hazards that may be faced during entry;
 - Is aware of the possible behavioral effects of hazard exposure in the entrants;
 - Continuously maintains an accurate account of the entrants in the permit space;
 - Remains immediately outside the permit space during entry operations until relieved by another attendant;
 - Communicates with entrants as necessary to assess their status and alert them to evacuate if needed; and
 - Assesses activities and conditions inside and outside the permit space to determine whether it is safe for entrants to remain in the space.
- The attendant is required to order immediate evacuation of the permit spaces as follows:
 - Whenever there is a prohibited condition;
 - If the behavioral effects of a hazard exposure become apparent in an entrant;
 - If there is a situation outside the space that could endanger the entrant(s); and/or
 - If the attendant can't effectively and safely perform all his required duties.
- The attendant must summon rescue and other emergency services as soon as he determines that entrants may need assistance.
- The attendant is required to take the following actions whenever unauthorized persons approach or enter a permit space while entry is underway:
 - Warn the unauthorized persons that they must stay away from the permit space;
 - If they have entered the permit space, advise the unauthorized persons that they must exit immediately; and
 - Inform the authorized entrants and entry supervisor that unauthorized persons have entered the permit space.
- The attendant must perform non-entry rescues as specified by his employer's rescue procedures.
- Attendants may not perform other duties that might interfere with their primary duty to assess and protect the entrants.

Duties of Entry Supervisors (1926.1210)

- Each entry employer must ensure the following:
 - The entry supervisor is familiar with and understands the hazards that may be faced during entry;
 - Before endorsing the permit, the entry supervisor verifies that the appropriate entries have been made on the permit, that the tests specified on the permit have been performed, and that the procedures and equipment specified on the permit are in place.
 - The entry supervisor terminates the entry, and cancels the entry permits as required.
 - The entry supervisor verifies that rescue services are available, the means for summoning them are operable, and that the entry employer will be advised immediately if the services become unavailable;
 - The entry supervisor removes unauthorized individuals who enter or attempt to enter the permit space during entry operations;
 - The entry supervisor determines that, when responsibility for permit space entry operations is transferred, operations remain consistent with the terms of the entry permit.

Rescue and Emergency Services (1926.1211)

- Employers who designate rescue and emergency services in accordance with the standard must evaluate a prospective rescue and emergency service's ability to respond to a summons in a timely manner and to function appropriately if required.
- The employer must select a rescue team or service that:
 - Has the capability to reach the victim(s) within a timeframe that is appropriate for the permit space hazards;
 - Is equipped for and proficient in performing applicable rescue services; and
 - Agrees to notify the employer immediately when the rescue services become unavailable.
- Each employer must inform each rescue team or service of the hazards they may confront during rescue operations.
- The employer must provide the rescue team or service with access to all permit spaces from which rescue may be necessary so that the team or service can develop effective rescue plans and practice rescue operations.
- An employer whose workers are designated to provide permit space rescue and/or emergency services must provide the equipment and training at no cost to the affected workers.

- An employer whose workers are designated to provide permit space rescue and/or emergency services must also take the following steps.
 - Provide affected workers with the personal protective equipment needed for rescue;
 - Train each affected worker to perform assigned rescue duties and ensure that the training is successfully completed;
 - Train each affected worker in basic first aid and CPR; and
 - Ensure that affected workers practice making permit space rescues before attempting actual rescues.
- Non-entry rescue is required unless retrieval equipment would increase the risk during entry, or would not contribute to a rescue.
- When non-entry rescue is used, the entry employer must ensure that retrieval systems or methods are used whenever an entrant enters a permit space, and confirm that emergency assistance is available if non-entry rescue fails.
- Each entrant must use a chest or full body harness with a retrieval line attached at the center of the entrant's back near shoulder level and above the head.
- Wristlets or anklets may be used in place of the chest or full body harness if the employer can demonstrate that a chest or full body harness is infeasible or would create a greater hazard.
- One end of the retrieval line must be attached to a retrieval device or a fixed point outside the permit space.
- A mechanical retrieval device must be provided for vertical entry permit spaces.
- Equipment that is not suitable for retrieval must not be used;
- If an entrant is exposed to a substance for which a Safety Data Sheet (SDS) is required, the SDS or other similar information must be made available to the medical facility treating the exposed entrant

Employee Participation (1926.1212)

- Employers must consult with affected workers and their authorized representatives on the development and implementation of all aspects of the permit space program described in the general requirements of the standard.
- Employers must make all information required to be developed by the standard available to all affected workers and their authorized representatives.

Provision of Documents to the Secretary of Labor (1926.1213)

- Each document required to be retained in the standard must be made available to the Secretary of Labor upon request.

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