

CONFINED SPACE ENTRY PROGRAM 901

I. GENERAL COMPANY POLICY

Management is complying with the OSHA Confined Space Standard, 29 CFR 1910.146, and MDCIS Confined Space Standard, Part 90. The Confined Space Entry Program procedures will protect employees from injury or death when performing operations in or around confined spaces. This program applies to all work operations where employees must enter a confined space.

Copies of the written program may be obtained from Management and shall be maintained in the Health / Safety & Environment Manual. Management will be responsible for program review and necessary updates.

This program identifies confined spaces and establishes procedures for all affected employees according to their responsibilities under the program. All affected employees shall receive instructions for safe entry into confined spaces including, but not limited to; hazard evaluation, atmospheric testing, appropriate personal protective equipment, entrant, attendant, supervisor, and emergency/rescue procedures.

All affected employees shall be required to take an active role in this program. Management encourages all questions to provide clear understanding, safe work practices and involvement in the program.

II. HAZARD EVALUATION FOR CONFINED SPACES

Management shall be responsible for conducting hazard evaluations to identify and list confined spaces.

Definitions

A. Confined Space

1. Is large enough and so configured that an employee can bodily enter and perform assigned work.
2. Has limited or restricted means for entry and exit.
3. Is not designed for continuous employee occupancy.
4. Any space so designated by the Company.

B. Permit - Required Confined Space. Has one or more of the following characteristics:

1. Contains or has the potential to contain a hazardous atmosphere
2. Contains a material that has the potential for engulfing an entrant
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section
4. Contains any other recognized serious safety or health hazard

C. Entry

Entry means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

D. Hazardous Atmosphere

Means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury or acute illness from one or more of the following causes:

1. Atmospheric Oxygen concentration below 19.5% or above 23.5%.
2. Flammable gas, vapor or mist in excess of ten percent (10%) of its Lower Explosive Limit (LEL) or Lower Flammable Limit (LFL).
3. Airborne combustible dust at a concentration that meets or exceeds its LEL.
4. Atmospheric concentration of any substance for which a dose or a Permissible Exposure Limit (PEL) is published in *Subpart G, Occupational Health and Environmental Control*, or in *Subpart Z, Toxic and Hazardous Substances*, of this part and which could result in employee exposure in excess of its dose or Permissible Exposure Limit.
5. Any other atmospheric condition that is immediately dangerous to life or health. (IDLH)

E. Immediately Dangerous to Life or Health (IDLH)

Means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

F. Rescue

A means by which an individual removes unaided, extricated or is removed from danger or a hazard in the permit space.

There are three identified forms of rescue from a permit space.

1. *Self-Rescue*: The individual has the ability to escape from the permit space unaided.
2. *Non-Entry Rescue*: The use of retrieval system including a retrieval line, full body harness or wristlets, if appropriate, and lifting device or anchor so as to not enter the permit space to remove an individual.
3. *Rescue Service*: The personnel designated to enter the permit space to remove an individual.

Note: In the unlikely event of an emergency and the individual is unable to exit the permit space unaided (self-rescue), the Attendant and responding Rescue Team shall exhaust all efforts to exercise non-entry rescue before subjecting the rescue team to the hazards of the space. Mechanical retrieval equipment is required to retrieve personnel from vertical type spaces more than (5) five feet deep.

G. Alternate Entry Procedures (c)(5)(1)

An employer may use alternate entry procedures if, the employer can demonstrate that the only hazard posed by the space is an actual or potential hazardous atmosphere; and that continuous positive pressure forced air ventilation alone is sufficient to maintain the space safe for entry.

H. Reclassification to Non-Permit Required Space (c)(7)(1)

If the permit space poses no actual or potential atmospheric hazards, and if all the hazards within the space are eliminated without entry into the space, the permit space may be reclassified as non-permit required confined space for as long as the non atmospheric hazards remain eliminated.

III. PREVENTING UNAUTHORIZED ENTRY

To provide a safe work environment and to prevent exposed employees from accidentally entering a permit space, management shall implement procedures to inform all employees of the existence, location, and danger posed by permit spaces. Confined Spaces and their associated hazards are also communicated to employees during safety training.

Each confined space shall be labeled with a sign reading " DANGER PERMIT REQUIRED CONFINED SPACE DO NOT ENTER " or similar language.

When entrance covers are removed, the opening to the space shall be promptly guarded by a railing, temporary cover, barrier tape or other temporary barrier that will prevent an accidental fall through the opening and will protect the employees working in the space from foreign objects entering the space.

IV. SAFE PERMIT SPACE ENTRY PROCEDURES

Entry Supervisors will be responsible for issuing entry permits and authorizing entry. The authorized permit must be complete and will remain at the site of entry throughout the duration of the entry. *(Please see Appendix A for a sample Confined Space Entry Permit.)*

Upon cancellation of the permit, the Entry Supervisor will secure the space and forward a copy of the canceled permit and any/all related documents to the main office to be maintained on file.

The Entry Supervisor will be responsible for ensuring that adherence to all provisions for safe entry operations have been met and accurately documented on the entry permit before authorizing entry.

The procedures to be followed for preparing, issuing and canceling entry permits include the following elements:

A. Pre-Entry Evaluation and Preparing Entry Permits

Before an entry may be authorized, the permit space must be evaluated to determine if conditions are safe for entry. The entry permit shall be complete and posted at the space opening. The procedures for permit space evaluation and completing the entry permit include, but are not limited to, the following:

1. Implement measures necessary to prevent unauthorized entry. Provide pedestrian, vehicle or other barriers to protect entrants from external hazards.
2. Identify and evaluate the hazards of the space before employees are permitted to enter. [Material Safety Data Sheet (MSDS), work to be performed, etc.]
3. Isolate the space. (Lock Out/Tag Out, etc.)
4. Implement the means, procedures, and practices necessary for safe permit space entry operations including, but not limited to, the following:
 - a. Specify acceptable atmospheric entry conditions before entry is permitted.
 - b. Use a calibrated direct-reading atmospheric monitoring instrument to test all areas of the space. (Note: atmospheric instruments shall detect O₂, LEL, H₂S and CO atmospheric hazards simultaneously.)

- c. Oxygen content must be between 19.5 % and 23.5 %
- d. Flammable gas, vapor or mist must be 10 % or less of its Lower Flammable Limit (LFL) or Lower Explosive Limit (LEL)
- e. Presence of Carbon Monoxide and/or Hydrogen Sulfide
- f. Certain operations may require additional atmospheric testing to identify hazards specific to the permit space to be entered.

Note: Caution should be taken as to the type of work performed in permit spaces. Often the type of work performed in permit spaces promotes the potential to create hazardous atmospheres. (i.e. cleaning, pressure spraying, scraping, grinding, welding operations etc.)

- g. Verify that acceptable atmospheric conditions are maintained in the permit space throughout the duration of an authorized entry. The Attendant shall be responsible for performing continuous atmospheric monitoring so long as someone remains inside the space. The atmospheric monitoring results shall be documented and recorded on the entry permit.
 - h. Provide each authorized entrant the opportunity to observe the pre-entry and subsequent atmospheric testing results. Re-evaluate the atmospheric test results of the space in the presence of an authorized employee if there is reason to believe that the evaluation of the space may not have been adequate.
 - i. Employees may enter a space that is identified as Immediately Dangerous to Life or Health (IDLH). If such a space is identified, it shall be noted on the entry permit and entry will be authorized only when the necessary provisions have been met for safe entry. Further, the IDLH hazard must be communicated to any contractor hired to perform entry.
- 5. Purge, inert, flush or ventilate the permit space as necessary to eliminate or control atmospheric hazards. (e.g., positive pressure forced air ventilation from a clean source)
 - 6. Designate and identify persons who are to have active roles in the entry operations and their assigned duties. Document on the entry permit by name (e.g., Authorized Entrants, Attendants, Entry Supervisor and Rescue Personnel)
 - 7. Provide at least one Attendant outside the permit space for the duration of the entry operations.
 - 8. Designate and identify the communication procedures used by authorized entrants and attendants to maintain contact during the entry.