

# **CONFINED SPACE PROGRAM**

## **I. PURPOSE**

This Confined Space Program has been developed in accordance with the Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.146. The purpose of this program is to ensure that proper protection is taken for all employees working in confined spaces.

## **II. GENERAL PROGRAM MANAGEMENT**

### **A. Responsibility**

It is the desire of the company to protect their employees. The company will:

- a. evaluate the workplace to determine if any spaces are permit-required confined spaces.
- b. inform potentially exposed employees of the permit-required confined spaces.
- c. determine if employees will not enter permit spaces, and what effective measures will be taken to prevent employees from entering permit spaces, or
- d. decide that its employees will enter permit spaces, a written permit space entry program must be developed and implemented.

The company Safety Officer, \_\_\_\_\_ is responsible for this program and has authority to make decisions to ensure the success of this program. Copies of the written program may be obtained from their office.

### **B. Program Review and Update**

The Confined Space Program will be reviewed and updated under these circumstances:

- a. When the company identifies changing conditions which cause the current plan to lose its maximum protection.
- b. A review of the permit-required confined space program, (using canceled permits retained within one (1) year after each entry) indicate revisions to the program as necessary.

### III. METHODS OF COMPLIANCE

#### A. General Requirements

Our company will use alternate procedures for entering a permit space under the conditions below:

1. Employees entering a permit space need not comply with the following parts of this program:
  - Permit Required Confined Space(C)
  - Permit System (D)
  - Entry Permit (E)
  - Duties of Authorized Entrants (F)
  - Duties of Attendants (G)
  - Duties of Supervisors (H)
  - Rescue and Emergency Services (I)providing that,
  - a. It has been demonstrated and documented that the only hazard is actual or potentially hazardous atmosphere;
  - b. It has been determined that the forced air ventilation alone is sufficient to maintain safe entry;
  - c. The monitoring and inspection data required by this program is being used;
  - d. If an initial entry is needed to collect the data above then it **will** be performed in compliance with parts (C) to (I) of this program.
  - e. The determinations and data required above are documented and available to employees who enter the space.

**Entry under the terms above must be performed in accordance with the following requirements:**

1. Any condition making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
2. Before covers are removed, the entrance will be promptly guarded by a barrier that will prevent accidental fall through the opening and will protect employees in the space from foreign objects entering the space.

3. Before an employee enters the space, the internal atmosphere will be tested with a calibrated direct-reading instrument, for the following conditions in the order given:
  - a. Oxygen content
  - b. Flammable gases and vapors, and
  - c. Potential toxic air contaminants.
4. There may be no hazardous atmosphere within the space whenever any employee is inside the space.
5. Continuous forced air ventilation will be used as follows:
  - a. An employee may not enter the space until forced air ventilation has eliminated a hazardous atmosphere;
  - b. Forced air ventilation will be directed to ventilate the immediate areas where an employee is or will be, and will continue until all employees have left the space.
  - c. The air supply for the ventilation will be clean and may not increase the hazard.
6. The atmosphere within the space will be continuously tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.
7. If a hazardous atmosphere is detected during entry:
  - a. Each employee will leave the space immediately;
  - b. The space will be evaluated to determine how the hazardous atmosphere developed;
  - c. Measures will be implemented to protect employees from the hazardous atmosphere before a subsequent entry.
8. Before each entry, the employer will verify that the space is safe for entry and that the measures above have been taken, with a written certification giving the date, location of the space, and signature of the person providing the certification.

## **B. Non-Permit Space**

A space classified as a permit-required space may be reclassified as a non-permit space:

- a. If the permit space poses no actual or potential atmospheric hazards and if all hazards are eliminated without entering the space.
- b. If it is necessary to enter the permit space to eliminate hazards, such entry will be performed under parts (C) to (I) of this program. If testing and inspection demonstrate that the hazards have been eliminated.
- c. If the safety officer has documented that the basis for determining that all hazards have been eliminated through a certification that contains the date, location of the space, and the signature of the person making the determination.
- d. If hazards arise within a permit space that has been declassified to a non-permit space these require each employee will exit the space. The safety officer will reevaluate the space and determine if it must be reclassified as a permit space.

## **OUTSIDE CONTRACTORS**

In addition to complying with above-mentioned requirements, each contractor that performs permit space entry will:

- a. Obtain any available information regarding permit space hazards and entry operations from the host employer;
- b. Coordinate entry operations with the host employer, when both host employer and contractor personnel work in or near permit spaces, as required in this program.
- c. Inform the host employer of the permit space program that the contractor will follow and any hazards confronted or created in permit spaces.

## **C. Permit-Required Confined Space**

The following measures have implemented the following measures necessary to prevent unauthorized entry to a confined space.

1. The safety officer will identify and evaluate the hazards of the permit spaces before employees enter them by performing atmospheric testing.
2. The safety officer will provide the following equipment at no cost to employees, and maintain the equipment properly, and ensure that employees use that equipment

properly:

- a. Testing and monitoring equipment needed to evaluate the permit space conditions;
  - b. Ventilating equipment needed to obtain acceptable entry conditions;
  - c. Communications equipment;
  - d. Personal protective equipment;
  - e. Lighting equipment needed to enable safe work in the exit from the space;
  - f. Barriers and shields to protect entrants from external hazards;
  - g. Equipment needed for safe ingress and egress;
  - h. Rescue and emergency equipment to comply with this program;
  - i. Any other equipment necessary for safe entry and rescue.
4. There will be at least one attendant outside the permit space for the duration of entry operations.
  5. If multiple spaces are to be monitored by a single attendant, means and procedures to enable the attendant to respond to an emergency in one or more spaces without distraction from the attendant's responsibility under this program will be provided.
  6. The safety officer designates the persons who are to have active roles in entry operations, their duties, and provides each with the training required by this program.
  7. The safety officer will develop and implement a procedure for summoning rescue and emergency services, for rescuing entrants, and for preventing unauthorized personnel from attempting rescue.
  8. The safety officer will develop and implement procedures to coordinate entry operations when employees of more than one employer are entering a permit space so that they do not endanger each other.
  9. The safety officer will develop and implement a system for the preparation, issuance, use, and cancellation of entry permits.
  10. The safety officer will develop and implement procedures to coordinate entry after operations are completed.

## **D. Permit System**

1. Before entry is authorized, the safety officer will document the completion of the measures below by preparing an entry permit. The safety officer will develop and implement the means, procedures, and practices necessary for safe entry, including:
  - a. Specifying acceptable entry conditions, including recording of gas detector readings;
  - b. Isolating the permit space;
  - c. Purging, flushing, or ventilating the permit space to eliminate or control atmospheric hazards;
  - d. Providing barriers as necessary to protect entrants from external hazards; and
  - e. Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.
2. Before entry, the safety officer shall sign the permit to authorize entry.
3. The completed permit will be made available to all authorized entrants to confirm that pre-entry preparations have been completed.
4. The duration of the permit will not exceed the time required to complete the assigned task or job.
5. The safety officer will terminate entry and cancel the permit when:
  - a. Operations have been completed; or
  - b. A condition that is not allowed under the entry permit arises in or near the permit space.
6. The safety officer retains each entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the permit so that appropriate revisions to the program can be made.

## **E. Entry Permit**

The entry permit that authorizes entry into a permit space shall identify:

1. The space to be entered;

2. The purpose of the entry;
3. The date and authorized duration of the entry;
4. The authorized entrants;
5. The personnel serving as attendants;
6. The individual serving as the entry supervisor;
7. The hazards of the permit space to be entered;
8. The measures used to isolate the space and eliminate or control hazards before entry;
9. The acceptable entry conditions;
10. The results of initial and periodic tests performed below: (accompanied by the names or initials of the testers and by an indication of when the tests were performed)
  - a. 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 larger or is part of a continuous system (such as a sewer), pre-entry testing will be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions will be continuously monitored in the areas where authorized entrants are working;
  - b. Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations, and;
  - c. When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, then for toxic gases and vapors.
11. The rescue and emergency services that can be called and how to call them;
12. The communication procedures used by entrants and attendants to maintain contact with each other;
13. Equipment, such as testing equipment, to be provided for compliance with 29 CFR 1910.146;
14. Any other information necessary to ensure employee safety; and
15. Any additional permits, such as Hot Work Permits, issued for work in the space.

## **F. Training**

1. The employer will provide training so that employees acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned.
2. Training will be provided:
  - a. Before the employee is first assigned duties under this regulation;
  - b. Before there is a change in permit space operation that presents a hazard about which an employee has not previously been trained on;
  - c. Whenever the employer has reason to believe there are inadequacies in their knowledge of these procedures.
3. The safety officer will certify that the training required has been accomplished and the employee is proficient in the duties.

## **G. Duties of the Authorized Entrants**

The safety officer shall ensure that all authorized entrants:

1. Know the hazards that may be faced during entry;
2. Make proper use of the equipment required;
3. Communicate with the attendant as necessary to enable the attendant to monitor the entrants and to enable the attendant to alert entrants of the need to evacuate as required.
4. Alert the attendant whenever:
  - a. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or
  - b. The entrant detects a prohibited condition.
5. Exit from the permit space as quickly as possible whenever:
  - a. An order to evacuate is given by the attendant or supervisor;
  - b. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation,

- c. The entrant detects a prohibited condition; or
- d. An evacuation alarm is activated.

## **H. Duties of Attendants**

The safety officer shall ensure that each attendant:

1. Knows what hazards that may be faced during entry;
2. Is aware of possible behavioral effects of hazard exposure;
3. Continuously maintains an accurate count of entrants;
4. Remains outside the permit space during entry until relieved by another attendant;
5. Communicates with entrants as necessary to monitor their status and to alert them of the need to evacuate;
6. Monitors activities inside and outside the space to determine if it is safe and orders evacuation immediately under any of the following conditions:
  - a. If the attendant detects any prohibited condition;
  - b. If the attendant detects the behavioral effects of hazard exposure in an entrant;
  - c. If the attendant detects a situation outside the space that could endanger entrants;  
or
  - d. If the attendant cannot effectively and safely perform all duties required.
7. Summon rescue and other emergency services as soon as it is determined that entrants may need assistance to escape;
8. Takes action when unauthorized persons approach or enter a permit space while entry is underway;
9. Performs non-entry rescues as specified by the employer's rescue procedure; and
10. Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

## **I. Duties of Entry Supervisors**

## Appendix A

### Confined Space Pre-Entry Checklist (Sewer Entry Permit)

A confined space either is entered through an opening other than a door (such as manhole or side port) or requires the use of a ladder or rungs to reach the working level and test results are satisfactory. This checklist must be filled out whenever the job site meets these criteria.

- |   | Yes | No  |
|---|-----|-----|
| 1. Did your survey of the surrounding area show it to be free of hazards such as drifting vapors from tanks, piping or sewers?      | ( ) | ( ) |
| 2. Does your knowledge of industrial or other discharges indicate this area is likely to remain free of dangerous air contaminants? | ( ) | ( ) |
| 3. Are you certified in operation of the gas monitor to be used?  | ( ) | ( ) |
| 4. Has a gas monitor functional test (Bump test) been performed this shift on the gas monitor to be used?                           | ( ) | ( ) |
| 5. Did you test the atmosphere of the confined space prior to the entry?  | ( ) | ( ) |
| 6. Will the atmosphere be continuously monitored while the space is occupied?   | ( ) | ( ) |

Contact \_\_\_\_\_ County for personnel rescue by local fire department in the event of an emergency. If on-site at the Regional Treatment Plant, contact the Plant Control Center (PCC).

**NOTE:** If any of the above questions are answered "No" do not enter. Contact Supervisor Immediately!

Job Location \_\_\_\_\_

Lead Man Signature \_\_\_\_\_ Date \_\_\_\_\_