

Permit-Required Confined Space (PRCS)

Sample Written Program

This is a sample written Permit-Required Confined Space procedure provided only as a guide to assist in complying with 29 CFR 1910.146. It is not intended to supersede the requirements detailed in the standards but only as an aid in developing your procedures so they meet the requirements of this standard. You need to review the standard for particular requirements which are applicable to your specific situation. This program must be tailored to fit your facility.

This material and safety and health consultation services are provided at no cost to owners, proprietors, and managers of small businesses by the Illinois Onsite Safety & Health Consultation Program, Industrial Services Division, Department of Commerce and Community Affairs under a program funded largely by the Occupational Safety and Health Administration (OSHA), an agency of the U.S. Department of Labor.

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TABLE OF CONTENTS

1.0 Policy3

2.0 Responsibilities3

3.0 Employee Participation & Access to Information 3

4.0 Permit Space Identification4

5.0 Prevention of Unauthorized Entry5

6.0 Permit-Required Confined Space (PRCS).....5

7.0 Alternative Procedures6

8.0 Reclassifying Permit Space to Non-Permit Space.....6

9.0 Personnel, Duties & Training for PRCS Entry Operations..... 7

10.0 Training for Reclassification & Alternate Procedures10

11.0 Host Employer’s Responsibilities with Contractors11

12.0 Rescue and Emergency Services12

13.0 Permit-Required Confined Space Program Review.....14

1.0 POLICY

We are committed to providing a safe and healthful work environment for our entire staff. Therefore, the following written program is in place to identify any Permit-Required Confined Spaces (PRCS) and to eliminate or control hazards associated with PRCS operations. This program is in accordance with the Occupational Safety and Health Administration's (OSHA) Permit-Required Confined Spaces Standard, Title 29, Code of Federal Regulations 1910.146.

2.0 RESPONSIBILITIES

Our Confined Space Co-ordinator (CSC), **Enter Company Representative_s Name** , is responsible for the overall implementation and maintenance of any written program or any certification concerning the requirements of the Permit-Required Confined Space Standard at our facility.

- 2.1 Permit-Required Confined Space Evaluation. All spaces are evaluated to determine if any permit spaces are present and the type of program required. Each space is evaluated to determine if full permit program is required, if the permit space can be reclassified as a non-permit space, or if alternative procedures can be used.

Note to the Employer: If you determine that no permit-required confined spaces exist at the facility, no further action is needed (refer to subsection 4.0 for additional clarification).

- 2.2 Training. All affected personnel are properly trained and refresher training is given as needed. Personnel who may be included are any authorized entrants, attendants, entry supervisors, on-site rescue team members and employees who may potentially enter the space.
- 2.3 Initial Contacting For Rescue Services. Rescue and emergency services have been informed of any permit-required confined spaces at our facility and have been given access to the spaces for drills, training, etc.
- 2.4 Equipment. All equipment needed for safe entry into any permit spaces and non-permit spaces is available and in proper working order.

Note to the Employer: The completion of 2.4 is not a required entry if the permit space is reclassified as a non-permit space or if alternate procedures are used. However, if an entry is required to verify the elimination of the hazard, then a full PRCS program is needed and 2.4 must be completed.

3.0 EMPLOYEE PARTICIPATION & ACCESS TO INFORMATION

All employees have some responsibility for their own safety. To that end, employees and their designated representatives are consulted on the development and implementation of all aspects of our program. Employees

or their designated representatives are encouraged to observe testing or monitoring of spaces. All testing or monitoring data, determinations & supporting data, permits, certifications are readily available to any employee who enters a permit space, or to that employee's authorized representative. Any permit space will be retested in the presence of an authorized entrant, or that employee's authorized representative, if requested because they have reason to believe the evaluation was not adequate.

4.0 PERMIT SPACE IDENTIFICATION

4.1 The workplace has been evaluated and determined (check box)

- No Permit-Required Confined Space(s) Exist at the Worksite.
- Permit-Required Confined Space(s) Have Been Determined to Exist.

4.2 The location(s) and hazard(s) posed by these permit spaces are listed below:

Note to the employer: A confined space is a space which:

- Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.) and;
- Is not designed for continuous employee occupancy.

A permit space is a confined space which has one or more of the following characteristics:

1. Contains or has a 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; or
4. Contains any other recognized serious safety or health hazard.

If no permit spaces are identified, no further action is required.

Location

Hazards

Note to the Employer: Develop a list of all permit-required confined spaces including their locations and identified hazard(s) which qualify it as a permit space. Though not mandated by the standard, it would be wise to develop a second list of all non-permit confined spaces in the event that these spaces are reclassified in the future.

5.0 PREVENTION OF UNAUTHORIZED ENTRY

- 5.1 For permit spaces that are identified at our worksite, all potentially exposed employees will be informed of their existence and hazards. The method(s) that will be used will be: (check box for specific policy)
- Posting of danger signs at each permit space reading "Danger, Permit-Required Confined Space, DO NOT ENTER".
 - Other (specify) _____

Note to the Employer: The standard allows any other equally effective means of informing employees of the presence of any permit spaces. For whatever method is chosen, OSHA will check to ensure that the method is effective.

- 5.2 It has been determined that the permit spaces identified at our worksite:
- Will not be entered by our employees. The following measures have been taken to prevent employees from entering the space(s): _____
 - Will be entered by employees of our workplace.

6.0 PERMIT-REQUIRED CONFINED SPACE (PRCS)

Note to the Employer: A written PRCS program is not required for:

Safe entry procedures have been developed for each permit space at our facility. These procedures specify the proper methods and equipment necessary to conduct the entry operation in a safe manner.

- 1. Situations where alternative procedures are used for entry. The procedures outlined in paragraph (c)(5)(ii) are mandated and written verification is required by (c)(5)(iii)(H).**
- 2. Situations where a permit space is reclassified as a non-permit space and entry is not required to verify elimination of all the hazards. Paragraph (c)(7)(iii) requires employers to document that the hazards have been eliminated.**

If procedure 1 or 2 cannot be used and if the employer determines that their employees will enter a permit space, then a written PRCS program is needed for each permit space and Section 9 must be completed. Keep in mind that a written PRCS program is a guidance document for employers and employees so they can develop and utilize the procedures required for safe entry into a permit space. An entry permit is basically a checklist to ensure all the steps for the safe entry have been taken prior to entry.

The program elements to be considered for a full PRCS are outlined in paragraph (d) of the standard. This program must specify the potential hazards of the space and the procedures needed to correct them. These step by step procedures must include acceptable entry conditions, isolation methods needed, methods for eliminating or controlling hazardous atmospheres (i.e., purging, cleaning, ventilation), equipment needed, testing protocol and duties of permit space team members.

A written PRCS Program addresses the following elements for each permit space entered:

- The methods used to prevent unauthorized entry.
- Identify and evaluate the specific hazards before entry.
- Establish measures for the safe control of identified hazards such as isolation, purging, inerting, ventilation, barricades, lockout/tagout, etc.
- Providing and maintaining equipment necessary for safe entry, including testing and monitoring, ventilation, communications, personal protection, lighting, barriers, entry and egress, and rescue equipment.
- Procedure to test the permit space and document results.
- Procedure to maintain acceptable conditions in the permit space.
- Identify duties of each employee required and provided training.
- Provide at least one attendant outside the permit space for the duration of the entry operations.
- Implement proper procedures for rescue.
- Establish a written system for preparation, issuance, use and cancellation of permits.
- Coordinate entry operations during multiple employer entries.
- Review entire entry program at least annually, unless previously reviewed at conclusion of a specific entry.

7.0 ALTERNATIVE PROCEDURES

The OSHA regulations allow permit spaces which have, as their *only hazard*, an actual or potential hazardous atmosphere to use alternative procedures for entry. These alternative procedures do not require the implementation of a full PRCS program. The following is a list of permit spaces at our workplace which currently qualify for alternative procedures:

Note to the Employer: Refer to Attachments for a Worksheet that can be used to certify that alternative procedures can be used and that the space is safe for entry. For those employers who can demonstrate that continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry, only the General Requirements - paragraph (c)(5) and Training - paragraph (g) are required. Remember, continuous forced air ventilation controls the hazard, it does not eliminate it.

8.0 RECLASSIFYING PERMIT SPACE TO NON-PERMIT SPACE

The OSHA regulations also allow permit spaces to be reclassified as non-permit spaces by the total elimination of all the hazards. A permit space can be reclassified as a non-permit space if there are no actual or potential atmospheric hazards and if all the other hazards within the space are eliminated without entry into the space. The following is a list of permit spaces at our workplace that can be reclassified as non-permit spaces by the elimination of the hazards:

Note to the Employer: If an entry is needed to eliminate or verify the elimination of a hazard, then a full PRCS program is required. Once it has been determined that all the hazards have been eliminated, then the space can be reclassified.

9.0 PERSONNEL, DUTIES AND TRAINING FOR FULL PRCS ENTRY OPERATIONS

- 9.1 Entry into any space where a full PRCS program is mandated requires a specially trained and equipped team. Each team consists of an authorized entrant; attendant; entry supervisor and rescue personnel.

Note to the Employer: This subsection does not apply if a full PRCS is not used. Note that subsection 12.0 contains the training needed when reclassifying or alternative procedures are used.

9.2 Each member of the team receives initial and annual refresher training. The training is specific for the duties of each team member and includes the procedures and practices necessary to protect them from the dangers of the permit space.

Note to the Employer: Provide a training program for employees using the information contained in this document and any other applicable resources. Make your training program specific to the particular permit space(s) to be entered. This training must give team members the understanding, knowledge and skills necessary for them to safely perform their assigned duties.

9.3 Training Required for using full Permit-Required Confined Space Procedures includes:

- Types of confined space hazards
- Components of the written PRCS program
- Components of the entry permit system
- Components of the hot work permit
- The need for prompt guarding of the entrance opening
- Atmospheric testing equipment including its use, calibration and maintenance
- Atmospheric testing protocol: oxygen, combustibles, toxics; pre-entry, frequent or continuous testing; check all levels of the space
- Methods for the control or elimination of any atmospheric hazards: inerting; draining and rinsing; purging and cleaning; continuous forced air ventilation
- Procedures the employees must follow if they detect a hazard
- The evaluation process to be used for reentry if hazards are detected
- Train employees on the use of entry equipment (e.g., ladders, communication devices,)
- Personal protective equipment required: full body harness; respiratory protection; chemical protective clothing; eye and face protection
- Personnel and their responsibilities: authorized entrant; attendant; entry supervisor; rescue team
- On-site or Off-site rescue: rescue plan; practice rescues; basic first-aid and cardiopulmonary resuscitation certification; full body harness with retrieval line attached to mechanical retrieval device
- Procedures for annual review of canceled permits
- Any other information necessary to ensure employee safety during a permit space entry operation
- Documentation of the training

Note to the Employer: The training required depends on the specific permit space to be entered and the procedures which are needed to protect entrants. The information provided in this training subsection is a generalization of the topics which must be covered during employee training.

9.4 In addition, the training program for **authorized entrants** includes:

- Know the hazards associated with the permit space and their effects.
- Properly use the equipment required for entry.
- Maintain a continuous means of communication with the attendant.
- Alert the attendant in the event of an emergency.
- Evacuate the space if an emergency occurs.

9.5 In addition, the training program for **attendants** includes:

- Know the hazards associated with the permit space and their effects.
- Maintain an accurate account of the authorized entrants.
- Remain at their assigned station until relieved by another attendant or until the permit space is complete.
- Monitor conditions in and around the permit space.
- Summon rescue and applicable medical services in the event of an emergency.
- Perform non-entry rescue procedures.
- Perform appropriate measures to prevent unauthorized personnel from entering the permit space.

9.6 In addition, the training program for **entry supervisors** includes:

- Know the hazards associated with the permit space and their effects.
- Verify that the safeguards required by the permit have been implemented.
- Verify that rescue services are available and that means for summoning them are operable.
- Cancel the written permit and terminate the permit space entry when required.
- Remove personnel who are not authorized to enter the permit space during entry operations.
- Periodically, determine that the entry operation is being performed in a manner consistent with the requirements of the permit space entry procedures and that acceptable entry conditions are maintained.

9.7 In addition, the training program for rescue personnel includes:

- Permit space recognition;
- Permit space hazards;
- Control of permit space hazards;
- Atmospheric monitoring equipment and testing protocol;
- Use and maintenance of personal protective equipment;
- Rescue equipment;
- Simulation of permit space rescues and required rescue techniques;
- Basic first aid and cardiopulmonary resuscitation (CPR);
- Requirements stated in paragraph (k) and (g) of 1910.146.

Note to Employer: Again, the training required is dependent on the specific space to be entered and the procedures needed to protect entrants. The information provided in this training subsection is a generalization of the topics which must be covered during employee training. See also section 10. Additionally, document employees' training and refresher training. This certification simply requires the employees' names, the signatures or initials of the trainers and the dates of the training.

9.8 The following is a list of employees who have been equipped and trained to serve as authorized entrants, attendants, entry supervisors or rescue personnel at our facility:

Authorized Entrants	Trainer	Date of Training

Attendant	Trainer	Date of Training

Entry Supervisor	Trainer	Date of Training

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Note to the Employer: Remember, training must be provided (1) before employees are assigned duties involving permit space entry; (2) whenever their assigned duties change; and (3) whenever there is a change in a permit space that creates hazards for which they have not been notified.

Rescue Team	Trainer	Date of Training

10.0 TRAINING FOR RECLASSIFICATION OR ALTERNATE PROCEDURES

Training is given to each employee who has access or potential access to a permit space. The amount of training needed will depend on the individual's duty assignment. For example, some employees may only be required to know the existence, location, and danger posed by a permit space. Others would need considerably more training if they are members of a PRCS team. Still others would need training as it pertains to the type of entry procedures used (i.e., alternative procedures or reclassifying to non-permit space procedures). The overall intent of this training is to give employees the understanding, knowledge, and skills necessary for the safe performance of their assigned duties in relation to the permit spaces of concern.

Four basic categories have been set up to train employees based on duties and potential exposure.

10.1 Awareness Training. Awareness training for employees potentially exposed to permit spaces can be satisfied by providing them with the specific information contained in subsection 3 and 4.

10.2 Training Required for Using Alternative Procedures. If the space qualifies for alternative procedures, training on the following topics is warranted:

- A major point concerning the use of alternative procedures is that these procedures can only be used when a hazardous atmosphere is the only hazard of concern.
- The harm associated with the atmospheric hazards of concern including their acceptable entry levels and symptoms of overexposure.
- Awareness training to recognize other potential hazards in or around the space.
- Any conditions which may make it unsafe to remove the entrance cover.
- The need for prompt guarding of the entrance opening.
- Atmospheric testing equipment including its use, method of calibration and maintenance
- Atmospheric testing protocol for oxygen, combustibles, toxics.
- Pre-entry, frequent or continuous testing of the permit space.
- Check all levels of the space for atmospheric hazards.

- Atmospheric controls such as inerting; draining and rinsing; purging and; continuous forced air ventilation including type, proper use and placement, its limitations.
- Procedures the employee must follow if a hazardous atmosphere is detected.
- The evaluation process to be used for reentry if a hazardous atmosphere is detected or the individual vacates the space and returns some time later.
- Train employees on the use of entry equipment used including ladders and intrinsically safe lighting.
- Personal protective equipment (e.g., gloves, hard hat, boots, etc.), its use, limitations and required maintenance.
- A review of the completed written certification form with the employee prior to entering the space.
- Any process which may introduce a hazard (e.g., welding, cleaning with solvents) which would prohibit use of alternative procedures.
- The requirements of paragraph (c)(5) must be reviewed with the employee.
- Any other information needed to ensure the safety of the employee
- The documentation of the training.

10.3 Training Required for Using the Reclassifying Permit Space Procedures. If the permit space can be reclassified as a non-permit space, the following items must be discussed:

- Documentation of the elimination of the hazards. If the elimination of the hazards or verification of elimination requires employees to enter the space, then a full PRCS program is needed.
- Hazards associated with the space (i.e., mechanical, chemical, atmospheric) and the methods needed to eliminate the hazards such as: isolation techniques; lockout/tagout; disconnection and misalignment of pipes; double block and bleed; blanking and blinding; removal of engulfment hazards; elimination of hazardous atmosphere by draining, inerting, purging, cleaning, venting
- Use of entry equipment used including ladders, ground fault circuit interrupters for electrical equipment, etc.
- Personal protective equipment, (i.e. gloves, hard hat, boots, etc.) including its use, limitations, and required maintenance.
- A review of the completed written certification form with the employee entering the space.
- The requirements of paragraph (c)(7) must be reviewed with the employee(s).
- Inform employees that any procedures such as welding, cleaning with a chemical, etc. would negate the reclassification and convert the space back to a permit space.
- Any conditions which may make it unsafe to remove entrance cover.
- The need for prompt guarding of the entrance opening.
- Atmospheric testing equipment including its use, method of calibration, and maintenance.
- Atmospheric testing protocol i.e., oxygen, combustibles, toxics; pre-entry, frequent or continuous
 - testing; check all levels of the space.
- Procedures the employee will follow if a hazard is detected.
- The evaluation process to be used for reentry if a hazard is detected or the individual vacates the space and returns some time later.
- Awareness training to recognize other potential hazards in or around the space.
- The documentation of the training.

11.0 HOST EMPLOYER'S RESPONSIBILITIES WITH CONTRACTORS

When contractors are involved in permit space entry work at our workplace, our CSC will inform them of the following information and coordinate any entry operations. In addition, our CSC will debrief the contractor at the completion of the entry operation, or during if a need arises and if any hazards were confronted or created

during their work.

- The location of the permit spaces at our facility and that entry into these spaces is only allowed through a permit space program or alternative procedures or space reclassification.
- Our rationale for listing the space as a permit space such as any identified hazards and our experiences with the particular space.
- Precautions that we have implemented to protect employees working in or near the space.
- Hold a debriefing conference at the completion of the entry operation or during the entry operation (if needed) to inform the host employer of any hazards confronted or created.

Note to the Employer: For clarification, refurbishing of the existing equipment and space is considered maintenance; reconfiguration of the space or installation of new equipment (as for a process change) is usually considered construction.

12.0 RESCUE AND EMERGENCY SERVICES

Note to the Employer: This subsection is not required if the permit space has been reclassified as a non-permit space or if alternative procedures are used.

The precautions and procedures outlined in our written PRCS program are designed to ensure that our employees are safe while working in permit spaces. Under no circumstances do we expect our employees to enter a permit space where hazards have not been eliminated or effectively controlled.

Additionally, we recognize that unexpected situations might arise that prevent entrants from self-rescue. In response, the following rescue and emergency action plan has been developed and will be strictly enforced.

We have decided to utilize: (check all that apply)

- on-site rescue services which include:
- non-entry rescue procedures
- entry rescue procedures
- off-site entry rescue services

Note to the Employer: Employers who choose to use off-site rescue services need not complete subsections 12.1 but must complete 12.2 & 12.3.

12.1 An onsite rescue team is designated to provide permit space rescue and emergency services. This team is provided personal protective equipment (PPE) needed to conduct permit space rescues safely and trained so they are proficient in the use of that PPE, at no cost to those employees. Employees are trained in basic first-aid and cardiopulmonary resuscitation (CPR). At least one member of the rescue

team or service holding a current certification in first aid and CPR is available.

Rescue team 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.

Note to the Employer: Simulated rescue operations must include dummies, mannequins, or actual persons from the actual or from representative permit spaces. Actual rescues during the 12-month period may also substitute for a practice rescue, even if the rescue was not successful.

12.2 To facilitate non-entry rescue, retrieval systems or methods are used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems meet the following requirements.

- A chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which presents a profile small enough for the successful removal of the entrant.

Wristlets in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

- The other end of the retrieval line is attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary.
- A mechanical device is available to retrieve personnel from vertical type permit spaces more than 5 (1.52m) feet deep.

12.3 In event of an emergency, we have made arrangements with, **Enter Name of Off-site Rescue Service** for off-site rescue and emergency services and they have consented to provide this service. This service has been informed of the hazards they may encounter if they are summoned. The rescue service has been provided access to the PRCS so they can evaluate the spaces to develop appropriate rescue plans and practice rescue operations. If rescue and emergency services are needed, the following procedures will go into effect:

Note to Employer: What will be considered timely will vary according to the specific hazards involved in each entry. For example, § 1910.134, Respiratory Protection, requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) wearing respiratory protection while in work areas defined as IDLH atmospheres.

Note to Employer: Non-mandatory Appendix F contains examples of criteria you can use in evaluating prospective rescuers as required.

Name of Rescue Service _____
Telephone Number _____
Location _____
Approx. Response Time _____

Name of Emergency Medical Service _____
Telephone _____
Location _____
Approx. Response Time _____

The specific procedures for summoning rescue and emergency services for our workplace is outlined as follows:

Note to the Employer: Describe the procedures that will be used for summoning the rescue and emergency services. Include the name, location and telephone numbers of the rescue services in this program and also on the entry permit. Train employees on the specific procedures for summoning the rescue and emergency services.

13.0 PERMIT-REQUIRED CONFINED SPACE PROGRAM REVIEW

Note to the Employer: This subsection is not required if the permit space has been reclassified as a non-permit space or if alternative procedures are used. Also, If no permit space entry operations are conducted during the year, no review is needed.

Within one year of any entry operation, we will conduct a review of the program using the canceled entry permits to identify any deficiencies in our program. A review will be conducted sooner if there is reason to believe that the program does not adequately protect employees. Any corrective measures will be documented by a revision of the program. Employees will be trained on any changes. Additionally, employees who note any inadequacies with the program can contact the CSC.