



**COMPANY
HEALTH & SAFETY
PROGRAM**

Issue: A
Date: 4/20/2009
Rev:3
Date: 11/14/17
Authorized: *MJM*

Title: Confined Space Entry Program

Section No: 9
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1.0 PURPOSE

The purpose of this program is to provide guidelines to ensure that safe entry procedures are utilized prior to and during all work activities in confined spaces performed by employees and subcontractors of Power Process Piping, Inc., and to be in compliance with regulatory standards.

2.0 SCOPE

This program contains many elements of confined space entry procedures, including, but not limited to: a Permit-Required Confined Space Decision Flow Chart; an entry permit system; active role designations, duties, and training; rescue and emergency services policy and procedures; multiple employer entry procedures; post-operations procedures; and program review procedures. The majority of PPP's confined space work is performed in general industry settings or for customers that are obligated to adhere to general industry regulations. This program is designed to be in compliance with CFR 29, Part 1910.146.

3.0 INDEX TO SECTION

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4.0 DEFINITIONS

1. **Confined Space** means a space that:
 - a. Is large enough and so configured that an employee can bodily enter and perform assigned work;
 - b. Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that have limited means of entry); and
 - c. Is not designed for continuous employee occupancy.
2. **Non-Permit Confined Space** means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.
3. **Permit-Required Confined Space** (permit space) means a confined space that has one or more of the following characteristics:
 - a. Contains or has the potential to contain a hazardous atmosphere;
 - b. Contains a material that has the potential for engulfing an entrant;
 - c. 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; and/or
 - d. Contains any other recognized serious safety or health hazard.

5.0 PROCEDURE FOR IDENTIFYING CONFINED SPACES

Where confined spaces are not already identified by a host employer, PPP project supervisors shall consult with the PPP safety director regarding any spaces in question that may be entered by PPP employees. Together they shall classify such spaces, using the definitions under sub-title 4.0 of this section and the attached Appendix A to CFR 29, Part 1910.146, Permit-Required Confined Space Decision Flow Chart. Spaces classified as permit-required shall be posted with signage stating: "Danger – Permit-



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Required Confined Space, Do Not Enter”, or other similar language that satisfies the requirements for a sign.

6.0 COORDINATION WITH HOST EMPLOYER

When employees of PPP perform work that involves permit space entry for a host employer, provisions of 1910.146 (c)(8) and (c)(9) shall be adhered to. (The safety standard is attached.)

7.0 PERMIT REQUIRED CONFINED SPACE ENTRY PROCEDURES

Before entry into a permit space is authorized, the Entry Supervisor shall:

1. Implement all measures necessary to prevent unauthorized entry;
2. Identify and evaluate the hazards that may be encountered in the space;
3. Write a site-specific entry procedure (if one does not already exist) for the review of all involved employees and other interested parties, involved employees may request a re-evaluation of confined space at any time;
4. Eliminate all hazards possible by means of disconnecting, blanking, double block & bleed, de-energizing, and lock-out/tag-out/try-out;
5. Conduct purging, inerting, flushing or ventilating of the permit space as appropriate to eliminate or control atmospheric hazards;
6. Provide barriers to control pedestrian and vehicle traffic to protect the entrants from external hazards;
7. Ensure that necessary equipment is available on site and in proper operating condition;
8. An attendant must be on duty outside the confined space for the duration of entry operations.
9. Ensure that employees involved with the entry have had the proper training for the tasks they may be asked to perform. If respirator use is necessary for confined space entry, Section No. 31 of this program “Respiratory Protection”, and CFR 29, Part 1910.134 shall be adhered to; and



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10. Complete PPP Form S.PRC.S.1, Permit Required Confined Space Entry Permit, which entails air quality testing among other procedural checks. A substitute for the PPP form may be used at the host employer's request.
11. Review entry operations when the employer has reason to believe that the measures taken under the permit space program may not protect employees and revise the program to correct deficiencies found to exist before subsequent entries are authorized
 - a. NOTE: Examples of circumstances requiring the review of the permit space program are: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an injury or near-miss during entry, a change in the use or configuration of a permit space, and employee complaints about the effectiveness of the program.
12. Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space, or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing required by this paragraph
13. Monitoring of the space must inform the entrants of the potential hazards and results; they must participate in the permit review and signing. Ventilation must be used & testing must be conducted before entry & during work.

When the Entry Supervisor issues the permit, the work can commence. The completed permit shall be made available to all involved. This shall be accomplished by posting the permit and/or reviewing the permit with affected employees so they are informed of the pre-entry preparations that have taken place. When hot work is required during a permit entry, all possible precautions shall be taken to prevent fire or explosion. Confined space entry training shall detail such precautions.

8.0 Evacuations

Should a situation occur where a hazardous condition develops, the permit space shall be evacuated immediately. The Entry Supervisor shall consult with the entrants and attendants to determine the cause of the



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hazardous situation and identify any actions that may have contributed to its development. Before another entry is attempted, the original permit shall be cancelled, noting the circumstances of the situation. A new permit shall be prepared, and deficiencies discovered from the previous entry shall be corrected.

9.0 NON-PERMIT CONFINED SPACE ENTRY PROCEDURES

If a permit space poses no actual or potential atmospheric hazards and all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated, as per 1910.146 (c)(7).

If the only hazard posed by the permit space is an actual or potential hazardous atmosphere that can be safely controlled by continuous forced air ventilation, supported by monitoring and inspection data, then the permit space may be entered, as per 1910.146 (c)(5).

For entries into spaces that fall under (c)(7) or (c)(5), PPP employees shall use PPP forms S.NPRCS.1, Non-Permit Confined Space Entry Report, and S.ATL.1, Atmosphere Testing Log.

10.0 MULTIPLE EMPLOYER ENTRY PROCEDURES

If PPP employees are required to occupy a permit-required confined space at the same time as employees of other companies, then a pre-entrance meeting will be held with the entry supervisors of all involved employers. In this meeting, all entry procedures and issues shall be coordinated, agreed upon, and written into the permit, so that employees of one employer do not endanger the employees of any other employer. It is the policy of PPP to avoid multiple employer entries whenever possible.

11.0 POST-OPERATIONS PROCEDURES



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The Entry Supervisor shall cancel the permit on permit-required entries, and ensure that spaces are closed off and/or returned to normal operating conditions where applicable.

Copies of PPP entry permits and non-permit entry reports shall be maintained on file at the jobsite for the duration of the job. Original permits and reports shall be sent to the PPP safety director. The safety director will retain these permits and reports on file at the main office for a minimum of one year. *When Confined Space Permit documents are issued and controlled by the the host employer it is the responsibility of the issuing party to meet and be in compliance with CFR 29, Part 1910.146. record retention requirements. PPP pre-task documents will record document procedures, (example: Closed out Confined Space Permits retained by host employer)*

12.0 TRAINING

PPP shall provide employees with training so all employees whose work is regulated by this section acquire the understanding, knowledge and skills necessary for the safe performance of the duties assigned to them, as per 1910.146 (g) thru (j). Active role designations of duties that PPP shall provide training for are Entrant, Attendant and Supervisor. Each affected employee must be trained prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created or special deviations have occurred.

PPP Form S.TAR.1, Safety Training Program Attendance Record, shall be used as documentation of Confined Space safety training. Attendance records shall be sent to the safety director and copies maintained at the jobsite for the duration of the project. The safety director shall maintain the most recent training certification of an employee.

13.0 RESCUE AND EMERGENCY SERVICES POLICY

Power Process Piping, Inc. policy does not permit any company employees to be used for rescue and emergency services. It is not feasible for PPP to train company employees in compliance with training requirements for rescue and emergency services.

Non-entry rescues may be performed by authorized attendants. When



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rescue and emergency services are necessary, but are not being coordinated or supplied by the host employer, PPP shall contract with a company whose business it is to supply such services, with the appropriate licenses, certifications, and training. **Outside services must be given an opportunity to examine the entry site, practice rescue, and decline as appropriate. If there is reliance on the client Host rescue services for use, this MUST be stated and agreed to in contract language.**

Rescue service must be on-site for immediately dangerous to life and health (IDLH) conditions while work is being performed.

14.0 RESPONSIBILITIES

It shall be the responsibility of **PPP Project Supervisors** to:

1. Consult with the PPP safety director prior to employee involvement in any confined space entries, or if there is any question regarding the identification or classification of a space that PPP employees may have to enter;
2. Ensure that employees and subcontractors under their control comply with this program and government regulations regarding confined space entries; and
3. Coordinate with host employers.

14.1 It Shall Be The Responsibility of The PPP Safety Director To:

1. Provide appropriate training for employees involved with confined space entries, as needed;
2. Retain each cancelled entry permit for at least 1 year to facilitate review of this program;
3. Review this program annually and revise it as necessary to ensure that employees participating in confined space entry operations are protected from hazards; and
4. Assist project supervisors with identifying and classifying confined spaces.

14.2 Duties of Authorized Entrants.



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1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Properly use Testing, Ventilation and Communication equipment.
3. Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space
4. Alert the attendant whenever: The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or the entrant detects a prohibited condition;
5. Exit from the permit space as quickly as possible whenever: An order to evacuate is given by the attendant or the entry supervisor, the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, the entrant detects a prohibited condition, or an evacuation alarm is activated.
6. [Employees or their representatives are entitled to request additional monitoring at any time.](#)

14.3 Duties of Attendants.

1. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Is aware of possible behavioral effects of hazard exposure in authorized entrants;
3. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the information on the entry permit is current.



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4. Remains outside the permit space during entry operations until relieved by another attendant;
5. Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space when conditions warrant;
6. Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - i. If the attendant detects a prohibited condition;
 - ii. If the attendant detects the behavioral effects of hazard exposure in an authorized entrant;
 - iii. If the attendant detects a situation outside the space that could endanger the authorized entrants; or
 - iv. If the attendant cannot effectively and safely perform all the duties required under paragraph (i) of this section;
7. Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards
8. Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - (i) Warn the unauthorized persons that they must stay away from the permit space;
 - (ii) Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
 - (iii) Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
9. Performs non-entry rescues as specified by the employer's rescue procedure;
10. Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants. It is PPP,s policy that attendants monitor only one confined space at a time.

14.4 Duties of Entry Supervisors.



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1. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
2. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
3. Terminates the entry and cancels the permit as required by paragraph **8.0** of this section
4. Verifies that rescue services are available and that the means for summoning them are operable;
5. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations;
6. Determines, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

15.0 RELATED FORMS AND REGULATIONS (ATTACHED)

- [S.PRC.S.1 - Permit Required Confined Space Entry Permit](#)
- [S.NPRCS.1 - Non-Permit Confined Space Entry Report](#)
- [S.ATL.1 - Atmosphere Testing Log](#)
- [MIOSHA General Industry Safety Standards, Part 90, Confined Space Entry](#)
- [S.CSEL.1 – Confined Space Entry Log](#)



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REVISION HISTORY

Revision number	Description of change	Written by	Checked by	Effective date
1	Revised program to meet OSHA Standards	George Newton	Safety	12/27/2010
	Program reviewed and Revision History added	George Newton	GMN	4/4/2014
2	Added clarification to document retention in section 11.0 Post-Operation Procedures	George Newton		7/14/2015
	Program reviewed	George Newton		7/14/2015
3	Added 7.0(11-12-13) & 14.2(6) Revised 13.0	Mike McCaffrey	MJM	11/14/17