Employer Logo

Employer Name

Permit- Required Confined Space Entry Program

1. INTRODUCTION

Every year workers are killed as a result of hazardous conditions in permit-required confined spaces. Approximately 60% of these fatalities are would-be rescuers who enter these spaces in an attempt to retrieve the fallen individual(s), only to be overcome and become victims themselves.

As part of routine maintenance activities or the construction/refurbishment of facilities many (employer name) employees and contractors are required to enter potentially hazardous permit-required confined spaces.

According to the U.S. Department of Labor, Occupational Safety and Health Administration's (OSHA) regulations, 29 CFR 1910.146 and 29 CFR 1926 1201-1213 "Permit-Required Confined Spaces", a confined space is defined as any location that is large enough and so configured that an employee can bodily enter, has limited openings for entry and egress, and is not intended for continuous human occupancy.

Permit-required confined spaces may have atmospheric conditions and/or physical hazards present and include: manholes, stacks, pipes, storage tanks, trailers, tank cars, pits, sumps, storm water basins, crawl spaces, vaults, hoppers, and bins. In addition, limited access to these locations complicates the retrieval of anyone incapacitated.

This program is written in accordance with the Occupational Safety and Health Administration's (OSHA) regulations, 29 CFR 1910.146 and 29 CFR 1926 1201-1213, "Permit-Required Confined Spaces." And New York State Public Employee Health and Safety (PESH) 12-9 Entering Confined Space as well as industry best practices.

2. POLICY STATEMENT

It is the policy of the (employer name) to take every reasonable precaution to provide a work environment free from recognized hazards for its employees.

Entry into any permit-required confined space will be in conformance with all Federal, and New York State laws, rules and regulations, as well as the (employer name) permit-required confined space program, accepted standard operating procedures and any related regulations.

Whenever possible, work that can be performed without entering a non-permit-required confined space or permit-required confined space is considered the preferred method.

All confined spaces have been previously identified and properly classified as either a permit-required or non-permit-required. Any new spaces or spaces without a determination must be assessed under permit-conditions until or if they can be proven otherwise. If a change in conditions occurs within a non-permit required confined space (e.g. sewage back up, bringing in a hazardous substance, hot work) it automatically becomes a permit-required confined space, and all proper precautions must be taken. All permit and non- permit required confined spaces must be re-evaluated as new conditions arise in the course of entry work and every 5 years. Special conditions such as Reclassification and Alternate Entry may be used whenever an assessment of the hazards by a qualified person deems the conditions to be acceptable per regulatory requirements. Reclassification may occur if there is no potential or actual atmospheric hazards and all other hazards can be eliminated. Alternate Entry procedures may be used if the only hazard or potential hazard is atmospheric and can be controlled by forced air ventilation. Proper documentation requirements must be met for any special circumstance and must be kept along with any permit documentation. (See Appendix A for Inventory and Appendix B for Assessment, Reclassification and Alternate Entry Forms).

A permit system has been established for all entries into permit-required confined spaces. Permit forms will be kept (location) and once completed will be kept on file for a minimum of (#) years. Should an exposure to a hazardous substance occur during the entry the permit shall be kept on file for 30 years. (See Appendix B for permit sample). For each entry that occurs an entry into the confined space log will be recorded on the log form. (See Appendix I)

Prior to entry of a permit-required confined space, an entry team consisting of at least one designated entrant, attendant and entry supervisor shall be established. Whenever possible this team shall be made up of three or more persons. If multiple entrants are in a permit-required confined space, then an attendant and non-entry rescue system shall be provided for each entrant or a properly assessed and equipped rescue service shall be onsite.

Atmospheric testing is required before opening and entering any confined space regardless of its classification. If a hazardous atmosphere is present, employees shall not enter the space until ventilation procedures have been carried out and testing reveals acceptable entry conditions based upon the NYS Department of Labor Public Employee Safety and Health Bureau's (PESH's) permissible exposure limits (PEL) unless they are a trained rescue service

equipped with properly rated rescue equipment and adhere to OSHA's Respiratory Protection standard (1910.134 or 1926.103). Whenever possible, all atmospheric hazards will be completely eliminated before entry. Continuous monitoring shall occur throughout the duration of the entry.

The (employer name) will provide all equipment required for employee entry in accordance with 29 CFR 1910.146 and 29 CFR 1926 1201-1213 and will ensure that all affected employees are trained and use the equipment properly. All required equipment will be maintained and used according to the manufacturer's recommendations.

Effective communication procedures will be established between the entry team and the rescue service prior to entry.

Compliance level training will be provided to any employee before they are assigned any duties related to permit-required confined space entry. Retraining shall occur if the employer sees an employee performing any deviation from this policy or if the employee shows inadequacies in knowledge of this program. Annual refresher training shall be provided to all affected employees and will include a non-entry rescue practice drill.

All qualified contractors who will be entering permit-required confined spaces within (employer name) will submit for approval their permit-required confined space entry program, employee training documentation, and agreement with their designated rescue service at the time of their bid and will be required to adhere to the requirements of 29 CFR 1910.146 or 29 CFR 1926 1201-1213. Contractors will not perform previously established bargaining unit work.

For construction work that involves permit-required confined spaces, a competent person has been authorized to identify the spaces and work with the controlling contractor and subcontractors to ensure communication of hazards, safe entry, the proper classification of confined spaces and documentation of any changes to spaces.

A permit-required confined space rescue service agreement has been established with (service name) and their program has been evaluated by (title) and meets the rescue and emergency services needs of the (employer name). Access to all PRCS has been provided and an annual training must be completed in an actual or represented space. OR AN internal rescue service has been established and has been equipped and trained per the OSHA requirements of 1910.146,134,and 132 or 1926 1201.1213,103 and Subpart E. Access to all PRCS has been provided and an annual training must be completed in an actual or represented space.

This permit-required confined space program shall be evaluated annually as well as on an as needed basis if any situation warrants the task and will include authorized employee representative(s).

This program shall be made available to all affected employees and their authorized representatives.

3. DEFINITIONS

Acceptable Entry Conditions: Conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit required confined space entry can safely enter, and work within the space.

Affected Employee: Any employee that performs any work related to confined space entry.

Attendant: An individual stationed outside one or more permit spaces who monitors the authorized entrant(s) and who performs all attendant duties assigned in our program.

Authorized Entrant: An individual who is trained and authorized (by our facility) to enter permit required spaces.

Blanking or Blinding: The absolute closure of a pipe, line or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line or duct with no leakage beyond the plate.

Competent person: means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Confined Space: A space that:

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

Control: The action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor: The employer that has overall responsibility for construction at the worksite. Note. If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.

Double block and bleed: The closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Early-warning system: The method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems include, but are not limited to: alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the authorized entrants and attendants.

Emergency: Any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants.

Engulfment: The surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.

Entry: The act by which a person intentionally 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.

Entry Employer: Any employer who decides that an employee it directs will enter a permit space.
Note. An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Entry Permit: The written or printed document that is provided by the facility to allow and control entry into a permit space and that contains information specified in the confined space program.

Entry Supervisor: The person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required. The entry supervisor can also serve as an attendant.

Entry Rescue: Occurs when a rescue service enters a permit space to rescue one or more employees.

Hazardous Atmosphere: An atmosphere that may expose employees to the risk of death, incapacitation, impairment of abilities to self rescue (escape unaided from a permit space), injury, or acute illness from one or more of the following:

1. Flammable gas, vapor, or mist in excess of 10% of the Lower Flammable Level (LFL)
2. Airborne combustible dust at a concentration that meets or exceeds its LFL (Can be approximated where the dust obscures vision at a distance of 5 feet or less)

3. Atmospheric oxygen concentration below 19.5% or above 23.5%
4. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in 29 CFR 1910 Subpart G, Occupational Health and Environmental Control or in Subpart Z, Toxic and Hazardous Substances.
5. Any other atmospheric condition that is Immediately Dangerous to Life or Health (IDLH).

Host employer: The employer that owns or manages the property where the construction work is taking place. Note. If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property and has transferred to that entity the information specified in §1203(h)(1), OSHA will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, OSHA will treat the owner of the property as the host employer. In no case will there be more than one host employer.

Hot work: Operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).

Inerting: Displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Isolation: The process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as blanking or blinding, misaligning or removing sections of lines, pipes, or ducts, lock out or tag out of all sources of energy or mechanical linkages or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or restricted means for entry or exit: A condition that has potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.

Line breaking: The intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout: The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lower flammable limit or lower explosive limit: The minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or monitoring: The process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed

in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.

Non-entry rescue: Occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.

Non-Permit Confined Space: A space that does not contain or have the potential to contain any hazard capable of causing death or serious physical harm.

Oxygen deficient atmosphere: An atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere: An atmosphere containing more than 23.5 percent oxygen by volume.

Permit Required Confined Space: A confined space that 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; or
4. Contains any other recognized serious safety or health hazard-

Note: a recognized serious safety or health hazard is any hazard that would prevent an entrant from performing self-rescue.

Physical hazard: An existing or potential hazard that can cause death or serious physical damage. Examples include but are not limited to: explosives (as defined by paragraph (n) of §1926.914, definition of “explosive”); mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces. Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited condition: Any condition in a permit space that is not allowed by the permit during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.

Qualified person: One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems relating to the subject matter, the work, or the project.

Representative permit space: A mock-up of a confined space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the permit space that authorized entrants enter.

Rescue: Retrieving and providing medical assistance to, one or more employees who are in a permit space.

Rescue service: The personnel designated to rescue employees from permit spaces.

Retrieval system: The equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Serious physical damage: An impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout:(1) Placement of a tagout device on a circuit or equipment that has been de-energized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and (2) The employer ensures that (i) tagout provides equivalent protection to lockout, or (ii) that lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.

Test or testing: The process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.
Note. Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

Ventilate or ventilation: Controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of the regulations.

4. PURPOSE

The permit-required confined space written program outlines the practices and procedures to protect (employer name), employees and contractors/vendors from hazards associated with permit-required confined space entry.

This program is written in accordance with the Occupational Safety and Health Administration's (OSHA) regulations, 29 CFR 1910.146, 29 CFR 1926 1201-1213 "Permit-Required Confined

Spaces" and New York State Public Employee Health and Safety (PESH) 12-9 Entering Confined Space and includes industry best practices.

The provisions of this program require (employer name) to provide the means, procedures, training and equipment to mitigate all potential hazards in their permit-required confined spaces and verify compliance through the use of a written entry permit system which is provided in Appendix B of this program. The permit-required confined space program will be available to all employees and their authorized employee representatives for review.

5. SCOPE

This program pertains to all permit and non-permit confined space locations required to be entered by any employee of (employer name) and must be adhered to by all affected employees that have any work-related duties associated with such spaces. Provisions within this program that pertain to contractors apply to all qualified contractors with possibility of entry, however they must also have their own compliant permit-required confined space program. All other non-affected employees, customers, clients, visitors, vendors or anyone that has business with (employer name) must be effectively prohibited from entry.

6. RESPONSIBILITIES

Employer Name:

(employer name) is responsible for development and maintenance of the permit-required confined space program, including maintaining a written inventory consisting of the proper classification of both permit and non-permit required confined spaces. This shall be established and then updated as needed and every 5 years thereafter. These requirements shall be overseen and completed by (title). Assessments and classifications were last made by (name) on (date). The Entry Log for each entry shall be completed by (title).

(employer name) is responsible for establishing a permit system. This will be maintained by (title).

(employer name) is responsible for providing a confined space training program for entrants, attendants and entry supervisors which will enable employees to recognize potential hazards and take the appropriate actions to control those hazards. This training will be offered to all affected employees who have the potential to be assigned any duties related to permit-required confined spaces and no employee will be assigned duties prior to compliance level training. (Title) is responsible for ensuring that each affected employee receives the proper level of training prior to assignment of work and to keep accurate records of training completion.

(employer name) is responsible for providing all related equipment including air monitoring devices, communication devices and the availability of personal protective equipment as outlined in the assessment required by OSHA regulation 1910.132 or 1926. Subpart E. (title) is responsible for performing the assessment. (title) is responsible for procurement and maintenance of all equipment.

(employer name) is responsible for providing a rescue and or emergency services and assessing that the service is able to respond to any permit-required confined space incident in a timely manner based upon the potential or actual hazards present. Access must be provided to all permit-required confined spaces and (employer name) and (title) must ensure that annual rescue training requirements are met. (See Appendix D for Rescue Agreement/Assessment). (Employer name) is responsible for ensuring that workers have the working means to contact rescue and emergency services. The Entry Supervisor will ensure that those means are operational prior to entry.

(employer name) is responsible for performing an annual review of the permit-required confined space program. (Title) is responsible for initiating the annual permit-required confined space program and coordinating the review with all required parties including authorized employee representatives.

Department Heads and Supervisors are responsible for reviewing the locations within their respective areas to identify either known or suspect permit-required and non permit-required confined space locations. Each department head must ensure that appropriate personnel receive and maintain required confined space training. (Title or Department) will ensure that bargaining unit work rights are not being infringed by the hiring of a contractor for the task, inspect and ensure proper qualifications of any contractor, furnish any outside contractor/vendor a written copy of known hazards identified in any potential confined space work areas, will debrief with the contractor and document any changes to spaces within the inventory. The supervisor or competent person from (employers name) will coordinate entry operations with any crews working in or in the vicinity of the contractor.

Employees: All (employer name) employees shall comply with all applicable procedures outlined in this policy. All employees must complete training as required by their supervisors and follow the procedures as outlined in this program when entering a permit-required or non-permit-required confined space. They should report to their supervisor any unrecognized potential permit-required or non-permit-required confined space locations and hazards. Any employee acting as the Entry Supervisor will be responsible for entering each entry on the confined space entry log and ensuring that each permit is accurately filled out and canceled correctly ensuring safe entry conditions.

Contractors/Outside Vendors: Any work for (employer name) at any (employer name) facility or off-site location must be conducted in accordance with all applicable regulations. Contractors must have a written permit-required confined space program that complies with all applicable regulations. All contractors must provide copies of their written program and employee training documentation along with their rescue agreement to the contracting department with their bid for work. Contractors are also responsible for supplying all needed equipment to perform safe entry and/or rescue. When a controlling contractor hires a subcontractor to work in a permit required space, the contracting department will furnish a written copy of the known hazards identified in that space to the contractor. Any contractor

will debrief (employer name) by letting the (title) know of any changes to the configuration of the space or any hazards detected or created during their work. A copy of any permit used by a contractor or subcontractor must be provided to (employer name) for our records and annual review.

7. SPACE EVALUATION, CLASSIFICATION AND RECLASSIFICATION

All (employer name) permit and non-permit spaces have been identified and are listed on the inventory in Appendix A. These spaces have been evaluated using the (employer name) Confined Space Assessment form found in Appendix B of this program. Any confined space that has been determined to be a permit-required confined space is listed in the inventory. This inventory is reviewed and updated whenever previously unidentified hazards present themselves or there are changes affecting the working conditions within a confined space or if new confined spaces are created or identified. If a new space is created or identified it will be considered a permit-required confined space until it has been evaluated and determined not to be. If conditions within any classification of a confined space change, the supervisor for the area where the space is located will be notified and they with the (job title) will re-assess the space using the assessment form. If a permit-required confined space is redesigned to remove the potential hazards, that change will be documented and its designation will be changed on the inventory. If conditions change and hazards are determined to be present in a non-permit-required confined space, those hazards will be documented and the designation will be changed on the inventory. The inventory and documentation of a change of designation will be kept by the (Job Title). This inventory will also designate and maintain whether reclassification or alternate entry procedures are allowed for a space and if there are only certain conditions when they a special circumstance can be utilized depending on the work to be performed and the condition of the infrastructure. The classifications of spaces will be reviewed every 5 years by (title).

For any jobs classified as construction, competent persons have been authorized and are responsible for all types of classifications. (See Appendix G for a current list of competent persons).

8. NON-PERMIT REQUIRED CONFINED SPACES

Entry into non-permit required confined spaces is not regulated. This policy still requires initial monitoring and recommends continuous monitoring throughout all entries. Employees are always required to evaluate the potential hazards of all jobs prior to beginning work. If any questions or concerns arise during the evaluation the employee should discuss the issue with their supervisor or department head. All members of the entry team are entitled to review the implementation of the control measures indicated on the entry permit form and observe the pre-entry atmospheric monitoring.

9. PREVENTION OF UNAUTHORIZED ENTRY

Unauthorized entry into permit spaces shall be prevented. Prevention measures include training, signs, and security measures, all employees in or around confined spaces shall attend

confined space awareness training. All permit-required confined spaces at (employer name) will be labeled with a sign that contains the phrase "DANGER – Permit-Required Confined Space Do Not Enter" or "DANGER – Confined Space Enter by Permit Only". If a permit space cannot be labeled or locked, (title) will determine an alternative method of preventing entry into the space.

10. PERMIT SYSTEM

The permit process guides the entry team through a systematic evaluation of the space to be entered. The permit should be used to establish and document appropriate entry conditions. A confined space entry permit must be completed before approval can be given to enter a permit-required confined space. All members of the entry team are entitled to review the permit. A permit shall be kept at the job site for the duration of the job. Permits are only good for the specified duration, or an eight-hour shift. Permits may not exceed the time required to complete a task. Once completed the entry supervisor must sign the permit to authorize entry. If a supervisor must be relieved of their duties, the permit shall be cancelled and a new permit must be filled out by new entry supervisor. All entrants must exit the space and conditions must be reassessed. If circumstances cause an interruption in the work or a change in the alarm conditions for which entry was approved, a new confined space entry permit must be completed. Permits must be kept for at least one year and will be kept on file at (location). If hazardous conditions are found at a space or an incident has occurred a copy of the entry permit will be attached to the inventory documentation so that future entrants are aware of the hazards that they may encounter. The entry supervisor shall terminate the permit when the operations are complete or if a condition arises that constitutes Any such condition shall be documented on the permit. All expired permits will be given to the (job title). Contractors entering permit-required confined spaces will also provide a copy to (job title) for our records and to discuss at the annual review. A copy of the permit can be found in Appendix B.

11. DUTIES OF THE ENTRY TEAM

Entry teams must be established prior to entry and consist of at least one attendant, one entrant and must have an entry supervisor.

A. ENTRY SUPERVISOR

The entry supervisor will:

1. Know and understand the hazards that may be faced during entry, including information on the signs or symptoms, and consequences of the exposure.
2. Verify, by checking that the appropriate notations 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. Terminate the entry and cancel the permit when reasons for entering the space have been completed or when an unacceptable condition within the space or outside the space is detected.

4. Verify that rescue services are available and that the means of calling the rescue service is operable. The entry supervisor will ensure that the attendant knows the method for summoning help if rescue is required.
5. Enforce this policy to ensure safe entry into any space identified as a permit-required confined space.
6. Determine that throughout the entry process, all responsibilities and functions remain consistent with safety, regardless of production requirements, time or cost.
7. Have the authority to stop work if they feel that the entry is unsafe for any reason.
8. Be trained to the proper level of responsibility.
9. Ensure that the confined space entry log is filled out correctly for each entry.

If an Entry Supervisor must be relieved at any point during the entry, the permit must be cancelled by said entry supervisor. All entrants must evacuate the space and the new Entry Supervisor must assess the space and conditions with the entry team and a new permit.

B. ENTRANT

All entrants will know the following:

1. Verify that rescue services are available and that the means of calling the rescue service is operable.
2. Hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure.
3. Proper use of equipment.
4. Means and methods of communication with the attendant.
5. Warning signs or symptoms of exposure to a dangerous situation, or the entrant detects a condition that would warrant immediate evacuation.
6. When self-rescue must occur by means of an order by the attendant or entry supervisor, when signs or symptoms of exposure are detected, or when any prohibited condition is recognized.

All entrants must be qualified for the task assigned, (electrical, welding etc.)

C. ATTENDANT

All attendants will:

1. Know the hazards that may be faced during entry or while in the space, including information on the mode, signs or symptoms, and consequences of the exposure to suspected hazards.
2. Be aware of possible behavioral effects of hazard exposure in authorized entrants.
3. Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants is precise at all times.

4. Remain outside the permit space during entry operations until relieved by another authorized attendant(s).
5. Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space when conditions warrant an immediate evacuation.
6. Monitor 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:
    a. If the attendant detects a hazardous condition.
    b. If the attendant detects a change in the behavior of any authorized entrant which would suggest an exposure to a hazard.
    c. If the attendant detects a situation outside the space that could endanger the authorized entrants.
    d. If the attendant cannot effectively and safely perform all the duties required as outlined in this policy.
7. Summon rescue and other emergency services as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
8. Do the following when unauthorized person(s) approach or enter a permit space while entry is underway:
    a. Warn the unauthorized person(s) that they must stay away from the permit space.
    b. Advise the unauthorized persons they must exit immediately if they have entered the permit space.
    c. Inform the authorized entrants and the entry supervisor, if unauthorized person have entered the permit space.
9. Perform non-entry rescue (rescue attempts that do not cause the attendant to break the plane of the entry to the space).

12. PERMIT REQUIRED CONFINED SPACE ENTRY

A. PREPARATION OF THE SPACE

1. An entry supervisor, attendant (s) and entrant (s) will be assigned. All personnel involved with the entry and their authorized employee representative, can observe all aspects of the preparation.
2. The entry supervisor will brief the entrant(s) and attendant(s) on all aspects of the job.
3. At any time, the entry supervisor, the entrant and/or the attendant can either postpone or stop the entry due to a safety concern.
4. The entry team will be provided and will wear all appropriate personal protective equipment based upon the hazards present.
5. If the space is located on a roadway and will compromise traffic in any way, a temporary traffic control plan must be created and set up in accordance with the rules and regulations of the Manual of Uniform Traffic Control Devices (MUTCD).

6. A new permit will be opened and previous hazards encountered in the space will be reviewed from prior permits.
7. The air monitor shall be appropriately calibrated according to manufacturer's requirements and a bump or field test will occur prior to any entry. Battery life will be checked and must be at full capacity. Air Monitoring around the space is required prior to opening the space and must be documented on the permit.
8. Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed.
9. Prior to opening the space, any entrances that will be open must be appropriately blocked to prevent accidental entry.
10. Upon opening the space, the oxygen content, flammable gases and vapors, and potential toxic air contaminants will be monitored and documented on permit using the provided gas monitors and be documented for every five feet of the space without breaking the plane.
11. If a hazardous atmosphere exists, continuous forced air ventilation is required throughout the duration of the entry. Entrants may not enter the space until acceptable entry conditions are confirmed. If acceptable entry conditions cannot be established and maintained, entry shall not be allowed.
12. Acceptable entry conditions are as follows:

    Oxygen content: >/= 19.5% and </= 23.5%

    Flammables: </= 10% of the LEL

    All toxic air contaminates must be less than the Public Employees Safety and Health Bureau's (PESH) permissible exposure limit. Hydrogen sulfide must be less than 10 parts per million and carbon monoxide must be less than 35 parts per million.
13. All connecting lines, ducts and pipes connected to chemical, gas and utility sources will be broken and capped or blanked.
14. Heating devices (e.g. jackets, coils, mantels, etc.) will be rendered safe either through line breaking/blanking or electrical lockout/tagout.
15. All mechanical, hydraulic and electrical hazards (e.g. agitators, machine drives, electrical lines, etc.) will be controlled through lockout/tagout.
16. If water or sewage has collected in the space it shall be pumped out prior to entry if possible. If the source is a continuous flow, a pump will be required to continuously remove water or sewage and be watched closely by the entry supervisor or an attendant to be sure the pump is working properly throughout the duration of the entry.
17. The space will be rinsed and/or dried if there is a build-up of hazardous or slippery material on the walls of the space.
18. The space will be cooled down to 80 degrees Fahrenheit or less.
19. Safe access to the space will be provided.
20. Adequate lighting will be provided either through low voltage lighting or through 110 Volt plugged into a Ground Fault Circuit Interrupter (GFCI).
21. All tools and communication devices shall be checked to make sure that they are intrinsically safe if the potential exists for a flammable atmosphere.

22. Communication methods shall be established prior to entry between the entrant and attendant and will be selected based on the size, location and characteristics of the space. If the selected device has batteries, the batteries must be fully charged.
23. The rescue service shall be notified prior to any entry. They must be informed of the time, location and hazards present.
24. All retrieval equipment must be inspected prior to entry. If there is a problem with any piece of equipment a supervisor must be notified and the equipment must be taken out of service.
25. For vertical entries the retrieval system will be set-up at the entry point and will include a tripod, winch with fall protection, and a full body harness. Each authorized entrant shall use 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 the employer can establish presents a profile small enough for the successful removal of the entrant.
26. If an entrant must unhook from the retrieval system for safety purposes, no hazardous atmosphere may exist and the rescue team must be on site.
27. If any other items such as tools need to be lowered into a space, a separate winch will be attached to the tripod and used for such purposes.
28. For horizontal entries or spaces where a tripod system cannot be used, wristlets may be used 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.

B. PERMIT COMPLETION

1. The permit will be completed by the entry supervisor (See Appendix B)
2. All information requested on the permit will be completed by the entry supervisor or NA (not applicable) will be written in.
3. The time of permit issuance will always be written in. In no case will a permit remain valid for more than 8 hours. If the job runs past 8 hours, a new permit will be issued.
4. Upon completion of work or if the work must be stopped due to a prohibited condition, the permit must be cancelled by the Entry Supervisor. If a prohibited condition was present that must be noted on the permit.
5. Expired permits will be returned to (title).

C. ENTRY

1. All required equipment for entry including: communication, lighting, access, safety and rescue as well as the tools needed to accomplish the job will be available at the entrance.
2. Continuous space atmosphere monitoring will be established either by the attendant or by the entrant and will be documented every 15-30 minutes.
3. The attendant will stay in the immediate area of the entrance to the space and will stay in contact with the entrant.

4. The entry supervisor will formally approve the entry to begin. At any time during the job the entry supervisor, entrant or the attendant can cancel the permit and cause the entry to be either postponed or stopped due to safety concerns.
5. The attendant will document air monitor readings at intervals decided upon by the entry supervisor, but not longer than one hour.
6. The attendant will immediately communicate any exterior condition to the entrant that could affect her/his safety (e.g. fire alarm, severe weather, etc.)

D. ENTRY COMPLETION

1. The entry permit will be closed out by listing the time of space exit and any other pertinent information.
2. The Rescue Service will be notified that the entry is complete.
3. The entry closure will be replaced.
4. Blanked and capped piping, tubing, ducts etc. will be re-attached.
5. Disconnected hydraulic, mechanical and/or electrical equipment will be reattached.
6. Lockout/tag outs will be released.
7. Operating personnel for the space will be notified that it can be returned to production (if applicable).
8. All safety and entry equipment will be cleaned, inspected and returned to storage locations.
9. The cancelled permit will be returned to (title).

E. ALTERNATE ENTRY PROCEDURES

Under certain circumstances employers may use alternate entry procedures in place of full permit entry process. Alternate entry procedures can be considered for permit spaces that **only** have an actual or potential atmospheric hazard and **no other** serious hazards. To use these alternate procedures, employers must be able to provide data and other verification to support that the only potential hazard is atmospheric and that continuous forced air ventilation alone can maintain a safe atmosphere throughout the entry. Workers still must be trained, the space still must be monitored, and ventilation must be continuous.

Conditions For Use

An employer may use alternate procedures for entering a permit space under the following conditions:

1. Ventilation alone will maintain safe conditions.
2. Monitoring and inspection must be performed to ensure that conditions are safe.
3. If initial entry must be made in order to perform this inspection, it must be done under permit procedures.
4. The only hazard is an actual or potential hazardous atmosphere.
5. Certification with the date, location of the space and signature must be made available to entry personnel. The required alternate entry form can be found in Appendix B.

F. RECLASSIFICATION

If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified temporarily as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated. Note: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. The reclassification form (found in Appendix B) must be filled out and verified by (title) that the hazards in the space have been eliminated.

G. DECLASSIFICATION

A permit-required confined space may be declassified to a non-permit required confined space if there is absolutely no potential for an atmospheric hazard and all other hazards have been eliminated permanently or if a reconfiguration of a space makes it so that it no longer meets the definition of a confined space. If hazards arise within a permit space that has been declassified to a non-permit space, each employee in the space shall exit the space. The employer shall then reevaluate the space and determine whether it must be reclassified as a permit space.

13. HOT WORK

"Hot work" includes any activity that generates heat, sparks, or open flame capable of igniting flammable materials or atmospheres. This includes, but is not limited to, welding, cutting, brazing, soldering, grinding, and torch-applied roofing. No hot work may be performed in a permit-required confined space unless a Confined Space Entry Permit and a Hot Work Permit are both completed and authorized by the Entry Supervisor. The confined space atmosphere must be tested and verified to be free of combustible gases or vapors (typically <10% LEL) prior to entry and maintained continuously during hot work. All energy sources must be isolated and lockout/tagout procedures implemented. Continuous atmospheric monitoring for oxygen, flammable gases/vapors, and toxic contaminants must be conducted before and during hot work. Mechanical ventilation shall be used to maintain atmospheric conditions within safe limits. Exhaust must be directed away from the workspace and not recirculated. When welding or cutting is being performed in any permit-required confined space the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement. A trained fire watch must be posted outside the permit-required confined space for the duration of hot work and remain for at least 30 minutes after completion. Fire extinguishers and appropriate firefighting equipment must be immediately available. All workers must wear appropriate PPE including flame-resistant clothing, eye protection, gloves, and respiratory protection if required. A rescue plan must be in place and rescue team notified before hot work begins. The Entry Supervisor) must review and authorize hot work activities using the hot work permit in Appendix F. Hot work permits must be posted at the job site and remain valid only for the duration and scope of the specific task.

14. EQUIPMENT INVENTORY AND MAINTENANCE

1. All confined space-related equipment shall be maintained and used according to the manufacturer’s requirements.

2. All equipment shall be inspected prior to each use and at the end of each use. Any equipment that does not pass inspection shall be taken out of service and (job title) shall be notified.
3. The equipment checklist found in Appendix C shall be used before and after each entry.
4. It is the responsibility of (job title) to ensure that all equipment is properly maintained.

15. RESCUE SERVICE

Employer name has made arrangements with: **Rescue Service Name** to provide entry rescue service. This service's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified has been evaluated and an agreement of services has been completed. (see Appendix D). The designated rescue service has been provided a copy of the inventory and a copy of all applicable SDS for each space. The designated rescue service shall also be provided prior access to all spaces so that the rescue service can develop and practice rescue operations and shall do so at least once a year.

The rescue service will be contacted by means of communication or process and can be reached at **phone number.**

Upon arrival the rescue team will be furnished with the permit and informed of any hazards present.

Regardless of the number of permit-required confined space entries made, the **Rescue Service** will be contacted at least annually to review the following information.

1. Ability to perform the agreed upon services.
2. List of permit-required confined spaces.
3. The hazards of the spaces.
4. Procedures for entry.
5. Equipment available on site.
6. Training programs.

16. CONTRACTORS/VENDORS

Any work for (employer name) at any (employer name) facility or off-site location must be conducted in accordance with all applicable regulations. Contractors must have a written permit-required confined space program that complies with all applicable regulations. All contractors must provide copies of their written program and employee training documentation along with their rescue agreement to the contracting department. Contractors are also responsible to supply all needed equipment to perform safe entry and/or rescue. When a contractor is required to enter or work in a permit required space, the contracting department will furnish a written copy of the known hazards identified in that space to the contractor.

Any contractor/vendors who will be engaged in a permit required confined space entry must, at a minimum, follow this procedure. Whenever a contractor will be involved in a permit-required confined space entry, a written plan for the entry will be submitted to the program

administrator prior to the work being scheduled. The(title), or a designated employee who has been trained as an entry supervisor, will approve the contractor's written plans. Prior to entry (title) must inform the contractor if any hazards previously confronted in the space, apprise the contractor of any precautions or procedures that have been implemented for the protection of employees working near that space and coordinate any operations between the contractor and (employer name). At the conclusion of the entry, (title) will debrief the contractor regarding the permit space program followed and any hazards that were confronted or created in the space and provide (employer name) a copy of their permit.

Before entry operations begin, the controlling contractor must:

(i) Obtain the host employer's information about the permit space hazards and previous entry operations; and

(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:

(A) The information received from the host employer;

(B) Any additional information the controlling contractor has about the subjects listed in paragraph (h)(1) of this section; and

(C) The precautions that the host employer, controlling contractor, or other entry employers implemented for the protection of employees in the permit spaces.

(3) Before entry operations begin, each entry employer must:

(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.

(4) The controlling contractor and entry employer(s) must coordinate entry operations when:

(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.

(5) After entry operations:

(i) The controlling contractor must debrief each entity that entered a permit space regarding the permit space program followed and any hazards confronted or created in the permit space(s) during entry operations;

(ii) The entry employer must inform the controlling contractor in a timely manner of the permit space program followed and of any hazards confronted or created in the permit space(s) during entry operations; and

(iii) The controlling contractor must apprise the host employer of the information exchanged with the entry entities pursuant to this subparagraph.

Note to paragraph §1926.1203(h). Unless a host employer or controlling contractor has or will have employees in a confined space, it is not required to enter any confined space to collect the information specified in this paragraph (h).

(iv) If there is no controlling contractor present at the worksite, the requirements for, and role of, controlling contactors in §1926.1203 must be fulfilled by the host employer or other employer who arranges to have
employees of another employer perform work that involves permit space entry.

17. TRAINING

Compliance level training will be provided for all personnel who are attendants, entrants or entry supervisors as follows:

- Before the employee is assigned duties relating to permit required confined space entry;
- Before the employee's assigned duties change;
- Whenever there is a change in operations that presents a hazard that the employee has not been trained in previously;
- Whenever there is an indication that the procedure is not being followed safely and/or when there are indications that employee practices or knowledge do not meet the requirements.

Training shall establish proficiency in the duties required by the standard. All training will be certified in writing with the employee's name and the date of training in addition to an outline of material presented.

Annual refresher training shall be provided to all affected employees and will include a non-entry rescue practice drill.

All employees that work near confined spaces and are not allowed to enter, will be given a confined space awareness level training in order to comply with part 29 CFR 1910.146(c)(2).

Training records will be kept and maintained by: (title).

A copy of training curricula can be found in Appendix E.

18. *REVISION HISTORY RECORD:*

Original Document prepared_____

Revision Number	Section	Revised By	Description
0	NA	NA	Original document.