



Pannier Corporation

Health and Safety Handbook

Marking System Group



Confined Space/Permit Confined Space (US)

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Authority and Scope

Regulation: 29 CFR 1910.146

Scope: This plan applies to all personnel, including contractors, who enter or work in confined spaces, or supervise such activities.

Policy Statement

Pannier Corporation does not have any confined spaces in their facilities. However, it is the policy of Pannier Corporation to establish a uniform procedure for safe entry into confined spaces and ensure that proper protection is taken for all employees, who may be required to work in or near confined spaces in customer's facilities. The company will consult with affected employees and their authorized representatives on the development and implementation of all aspects of the confined space program, and provide them with all information required for program development.

Plan Administration

Plan Administrator - John Visconti or designee Work 412-492-1400 ext. 310

Plan Administrator. The plan administrator is responsible for implementing this plan and has authority to make decisions to ensure the success of this program. The plan administrator will:

- Evaluate the workplace to determine which spaces, if any, are permit-required confined spaces.
- Develop a written confined space entry plan to protect the safety and health of all affected employees.
- Perform the initial and periodic evaluation of the hazards associated with each confined space.
- Inform employees via signs and other means where the confined spaces are located and the hazards they pose.
- Determine what effective measures will be taken to prevent unauthorized employees from entering permit spaces.
- Authorize entry for non-permit confined spaces and jointly approve entry with the supervisor (or designee) for permit-required confined spaces.
- Determine which employees will enter permit-required confined spaces and authorize their entry.
- Monitor the effectiveness of the plan.
- Provide all testing, data management, and personal protective equipment.
- Provide employee training and technical assistance as needed.
- Maintain copies of all confined space entry work permits for at least 1 year.
- Maintain the inventory of permit-required confined spaces.
- Review confined space programs submitted by subcontractors.

Entry Supervisor - The entry supervisor is qualified and authorized to approve permit-required confined spaces. The entry supervisor will be identified on the permit and sign it before any entry begins and is authorized to terminate entry when a prohibited condition arises in the confined space.

Rescue Team Members - The rescue team members will be trained to respond to rescue calls by any person recognizing a need for rescue from a confined space. Rescue team members that are employees of Pannier Corporation will have current certification in first aid and CPR, have received the same training as authorized space entrants, and have completed training in a simulation of the confined space before the issuance of the confined space permit.

Plan Review and Update



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- The confined space plan will be reviewed and updated when:
- Changing conditions cause the current plan to lose its maximum protection.
- A review of confined space permits (using cancelled permits retained within 1 year after each entry) indicates revision is necessary.
- Copies of the plan are available for review at Pannier Corporation.

Definitions

Attendant - an individual stationed outside one or more permit-required confined spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

Authorized Entrant - An employee who is authorized by the employer to enter a permit-required confined space.

Confined space - a space that:

- Is large enough and configured so that an employee can bodily enter and perform assigned work.
- 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.)
- Is not designed for continuous employee occupancy.

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

Entry permit - the written or printed document that is provided by the employer that allows and controls entry into a permit space and that contains the information specified in paragraph (f) of this section.

Entry supervisor--the person (such as the employer, foreman, or crew chief) 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 by this section.

Hazardous atmosphere - an atmosphere that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL)
- Airborne combustible dust at a concentration that meets or exceeds its LFL
- Hot work permit - the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.
- Immediately dangerous to life or health (IDLH) - any condition that poses an immediate or delayed threat to life that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

Non-permit confined space - a confined space neither contains nor, with respect to atmospheric hazards, has the potential to contain any hazard capable of causing death or serious physical harm.



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Permit-required confined space (permit space) - a confined space that has one or more of the following characteristics:

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

Evaluation of Confined Spaces

Each confined space at the facility will be evaluated to determine its classification as a permit-required confined space. No one may enter any confined space until it has been evaluated.

Survey and List of Confined Spaces

The Plan Administrator or designee will ensure that a survey of the facility is conducted to identify all types of confined spaces. The survey will be updated whenever a new confined space is created or conditions change in existing spaces.

Confined Space Entry Requirements

Non-Permit Confined Space Entry

General Requirements

Employees entering a non-permit confined space need not comply with the permit requirements for confined spaces or duties of authorized personnel provided that:

- It has been demonstrated and documented that the only hazard is actual or potentially hazardous atmosphere.
- It has been determined that the forced air ventilation alone is sufficient to maintain safe entry.
- The monitoring and inspection data required by the plan are being used.
- Test data collection that requires an initial entry must be performed in compliance with the permit-required confined space and entry supervisor requirements.
- The determinations and data required are documented and available to employees who enter the space.

Entry without a permit must be performed in accordance with the general requirements for non-permit space entry and the following specific requirements:

- Any condition making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
- Before covers are removed, the entrance will be promptly guarded by a barrier that will prevent an accidental fall through the opening and will protect employees in the space from foreign objects entering the space.
- If it is necessary to enter a confined space to collect initial monitoring data or inspect for hazards, the full provisions for entering a permit-required confined space must be implemented.
- Before an employee enters the space, the internal atmosphere will be tested for the following conditions, in the order given, with a calibrated direct-reading instrument:
 - Oxygen content
 - Flammable gases and vapors Potential toxic air contaminants
- There must be no hazardous atmosphere within the space whenever any employee is inside the space.

Continuous forced air ventilation will be used as follows:



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- An employee may not enter the space until forced air ventilation has eliminated a hazardous atmosphere.
- Forced air ventilation will be directed to ventilate the immediate areas where an employee is or will be, and will continue until all employees have left the space.
- The air supply for the ventilation will be clean and may not increase the hazard.
- The atmosphere within the space will be continuously tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

If a hazardous atmosphere is detected during entry:

- Each of the employees will leave the space immediately.
- The space will be evaluated to determine how the hazardous atmosphere developed.
- Measures will be implemented to protect employees from the hazardous atmosphere before a subsequent entry.
- Before each entry, the employer will verify that the space is safe for entry and that the measures above have been taken, with a written certification giving the date, location of the space, and signature of the person providing the certification.

Pre-Entry Certification

There are no Confined spaces locations located at Pannier Corporation

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

- The permit space poses no actual or potential atmospheric hazards and if all hazards are eliminated without entering the space.
- Testing and inspection demonstrate that the hazards have been eliminated.
- The Plan Administrator or Designee has documented that the basis for determining that all hazards have been eliminated through a certification that contains the date, location of the space, and the signature of the person making the determination.

New Hazards - When hazards arise within a permit-required space that has been declassified to a non-permit space, anyone in the space must exit. The Plan Administrator or Designee will reevaluate the space and determine if it will be reclassified as a permit space.

Permit-Required Confined Space

The following measures will be implemented by the Department Supervisor to ensure the safety of entrants and to prevent unauthorized entry into a confined space:

- Identify and evaluate the hazards of the permit spaces before employees enter them by performing atmospheric testing.
- Post danger signs outside of confined spaces such as DANGER PERMIT-REQUIRED CONFINED SPACE AUTHORIZED ENTRANTS ONLY or an equally effective means will be used.
- Designate the persons who are to have active roles in entry operations, their duties, and provide each with the training required by this program.
- Summon rescue and emergency services for rescuing entrants and for preventing unauthorized personnel from attempting rescue.
- Coordinate entry operations when employees of more than one employer are entering a permit space so that they do not endanger each other.
- Prepare, issue, use, and cancel entry permits.
- Coordinate entry after operations are completed.
- There will be at least one attendant outside the permit space for the duration of entry operations.



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- When a single attendant monitors multiple spaces, enable the attendant to respond to an emergency in one or more spaces without distraction from the attendant's responsibilities.

Equipment

Entrants, attendants, and any other support personnel will be provided with all equipment necessary to work in a confined space safely, at no cost to them. Following is a list of the type of equipment that will be provided as needed:

- Testing and monitoring equipment
- Ventilating equipment needed to obtain acceptable entry conditions

Communications equipment

- Personal protective equipment if feasible engineering and work practice controls does not adequately protect employees.
- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
- Barriers and shields as required.
- Equipment, such as ladders, needed for safe entry and exit by authorized entrants.
- Rescue and emergency equipment, except to the extent that the equipment is provided by rescue services.

Permit System

Before entry is authorized, the Plan Administrator or Designee will prepare an entry permit that describes the means, procedures, and practices necessary for safe entry, including:

- Specifying acceptable entry conditions, including recording of gas detector readings;
- Isolating the permit space;
- Purging, flushing, or ventilating the permit space to eliminate or control atmospheric hazards;
- Providing barriers as necessary to protect entrants from external hazards; and verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry;
- Before entry, the entry supervisor will sign the permit to authorize entry. The completed permit will be made available to all authorized entrants to confirm that pre-entry preparations have been completed. The duration of the permit will not exceed the time required to complete the assigned task or job.

The entry supervisor will terminate entry and cancel the permit when:

Operations have been completed; or

A condition that is not allowed under the entry permit arises in or near the permit space.

The entry supervisor will retain each entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the permit so that appropriate revisions to the plan can be made.

Entry Permit

No one may enter a permit-required confined space except authorized entrants working under a valid permit. The entry permit that authorizes entry into a permit space will contain the following items:

- A description of the space to be entered



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- The purpose of the entry
- The date and authorized duration of the entry
- The authorized entrants
- The personnel serving as attendants
- The individual serving as the entry supervisor
- The hazards of the permit space to be entered
- The measures used to isolate the space and eliminate or control hazards before entry
- The acceptable entry conditions
- The results of initial and periodic tests performed, including: [Include the names or initials of the testers and indicate when the tests were performed.]
- Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that if isolation of the space is infeasible because the space is larger or is part of a continuous system (such as sewer), pre-entry testing will be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions will be continuously monitored in the areas where authorized entrants are working.
- Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
- When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, then for toxic gases and vapors.
- The rescue and emergency services that can be called and how to call them
- The communication procedures used by entrants and attendants to maintain contact with each other
- Equipment, such as testing equipment, to be provided for compliance with the confined space regulation
- Any other information necessary to ensure employee safety
- Any additional permits, such as hot work permits, issued for work in the space
- Permit duration. The duration of the permit will not exceed the time required to complete the assigned task or job identified on the permit.

Canceled Permit

The entry supervisor will cancel entry permits when work in the confined space is completed or when a condition exists in the space that is not allowed by the permit. New conditions will be noted on the canceled permit and used in revising the permit space program. Pannier Corporation will keep all canceled entry permits for at least 1 year.

Contractors

The Company will ensure that each contractor or subcontractor hired to enter a confined space is:

- Informed that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program
- Trained to enter the space
- Aware of all hazards associated with the space
- Given a copy of the permit entry requirements
- Provided with all the precautions and procedures to be followed when in or near a confined space
- Coordinating entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces
- Debriefed at the conclusion of the entry operations concerning the permit space program and about any hazards confronted or created in permit spaces during entry operations



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Each contractor that performs permit-required confined space entry will:

- Obtain any available information regarding permit space hazards and entry operations from Purchasing or department supervisor.
- Coordinate entry operations with the Plan Administrator or Designee when company employees and contractor personnel jointly work in or near permit spaces.
- Inform the Plan Administrator or Designee of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces method, either through a debriefing or during the entry operation.

Employee Training

The Company will provide training so that employees acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned while working in or near confined spaces.

General Training

Training will be provided to all employees whose work is regulated by the confined space plan:

- Before the employee is first assigned confined space duties
- Before there is a change in assigned duties
- Before there is a change in permit space operation that presents a hazard about which an employee has not previously been trained, whenever the employer has reason to believe there are deviations from the confined space procedures or inadequacies in the employee's knowledge of the procedures
- The training will establish employees' proficiency in their duties and introduce new or revised procedures, as necessary, to comply with the confined space rules.

Specific training program elements - A training program has been established for:

- Entrants
- Attendants
- Entry Supervisors
- Rescue Teams

Training will cover the duties for each type of authorized confined space worker. See the Duties of Entry Personnel section for the specific duties.

Contractor Training

Contractors, subcontractors, and employees of contractors must receive the same level of training appropriate to their duties as required for employees of the Company. No contractors will be allowed to enter or work near confined spaces without the required training.

Rescue Team Training

In addition to the specific duties, rescue team members will be trained to:

- Understand the rescue plan and procedures for each type of confined space at the facility.
- Learn the access ways and configurations of confined spaces in order to minimize response time.
- All rescue team members will be certified in first aid and CPR.

Trainee Certification



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The Plan Administrator or Designee will certify that the training required has been accomplished and that the employee is proficient in his or her authorized duties. The certification will contain each employee's name, the signatures or initials of the trainers, and the dates of training. It will be available for inspection by employees and their authorized representatives. [Click here](#) for a copy of the training certification form.

Training Program Assessment

Assessments of the effectiveness of employee training will be periodically conducted by the Plan Administrator or designee. Copies of the assessments will be maintained for Duration.

Refresher Training

Refresher training will be provided as needed to maintain employee proficiency in entry procedures and safety.

Duties of Entry Personnel

Authorized Entrants

All authorized entrants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Properly use testing, monitoring, ventilating, communications, lighting, and personal protective equipment, barriers and shields, ladders, and any other equipment necessary for safe entry and exit.
- 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.
- Alert the attendant whenever he or she recognizes any warning sign or symptom of exposure to a dangerous situation, or detects a prohibited condition.
- Leave 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.
 - An evacuation alarm is activated.
 - The attendant can no longer perform his or her duties due to injury, illness, or other emergency.
 - A condition outside the confined space exists that could endanger the entrant.

Attendants

All attendants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Know the behavioral effects of the hazards on entrants.
- Keep an accurate count of how many entrants are in a permit space at any given time, and ensure an accurate means of identifying a specific entrant who is in the space.
- Remain outside the permit space when operations are under way until relieved by another attendant.
- Enter the space for rescue only if trained and equipped for rescue operations and if relieved by another attendant.
- Communicate with entrant(s) as necessary.



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Monitor activities inside and outside the permit space to determine if it is becoming dangerous, and order the entrant(s) to evacuate if:

- A prohibited condition is detected;
- The entrant shows behavioral effects of hazard exposure;
- A situation outside the space could endanger the entrant(s); or
- The attendant cannot safely perform all his or her duties.

Summon rescue and emergency services if the entrant needs help to escape the confined space.

Take the following steps when unauthorized persons attempt to enter the confined space:

- Warn such persons away from the area;
- Advise the unauthorized person(s) to exit the space if they have entered it; or
- Inform authorized entrants and the entry supervisor that an unauthorized person has entered the space.

Perform non-entry rescues as specified under the rescue procedures (see the Rescue Services section).

Perform no other activities that might interfere with the primary duty of monitoring and protecting authorized entrants.

Entry Supervisors

Each entry supervisor will:

- Know and understand the hazards that may be faced during entry.
- Verify, 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.
- Terminate the entry and cancel the permit as required by this program.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized individuals who enter or attempt to enter the permit space during operations.
- Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

Rescue Services

Pannier has no confined spaces in plant locations; Emergency numbers are located at each phone within the facilities. Emergency rescue is provided by local EMS and Fire Department.

Emergency Responders are invited into the facilities annually for training and familiarization of building layout, building access and egress points as well as locations of all safety equipment.

For Pannier employees working in customer's facilities, they will follow the customer's rules for Rescue Services.

Medical Treatment for Chemical Exposure



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If an injured entrant is exposed to a substance for which a material safety data sheet (MSDS) or other similar written information is required, the MSDS or written information will be made available to the medical facility treating the exposed entrant.

Work Performed at Customer Sites

For work performed on Pannier supplied equipment. at customer sites, there are no occasions where it would be necessary for a Pannier employee to work in a confined space where IDLH conditions are present.