

Chapter 296-809 WAC

CONFINED SPACES

WAC

296-809-100 Scope.
296-809-200 Summary.
296-809-20002 Identify permit-required confined spaces.
296-809-20004 Inform employees and control entry to permit-required confined spaces.
296-809-20006 Follow these requirements when you contract with another employer to enter your confined space.

PERMIT-REQUIRED CONFINED SPACE PROGRAM

296-809-300 Summary.
296-809-30002 Develop a written permit-required confined space program.
296-809-30004 Meet these additional requirements if your employees enter another employer's confined space.

EMPLOYEE TRAINING

296-809-400 Summary.
296-809-40002 Provide employee training.
296-809-40004 Certify employee proficiency.

PERMIT ENTRY PROCEDURES

296-809-500 Summary.
296-809-50002 Implement procedures for entry permits.
296-809-50004 Use an entry permit that contains all required information.
296-809-50006 Keep and review your entry permits.
296-809-50008 Prevent unauthorized entry.
296-809-50010 Provide, maintain, and use proper equipment.
296-809-50012 Evaluate and control hazards for safe entry.
296-809-50014 Make sure you have adequate rescue and emergency services available.
296-809-50016 Use nonentry rescue systems or methods whenever possible.

296-809-50018 Make sure entry supervisors perform their responsibilities and duties.
296-809-50020 Provide an attendant outside the permit-required confined space.
296-809-50022 Make sure entrants know the hazardous conditions and their duties.
296-809-50024 Implement procedures for ending entry.
296-809-600 Alternate entry procedures.
296-809-60002 Make sure the following conditions are met if using alternate entry procedures.
296-809-60004 Follow these alternate entry procedures for permit-required confined spaces.
296-809-700 Nonpermit confined spaces requirements.
296-809-70002 Follow these requirements when classifying a confined space as a nonpermit confined space.
296-809-70004 Reevaluate nonpermit confined spaces if hazards develop.
296-809-800 Definitions.

WAC 296-809-100 Scope. This chapter applies to all confined spaces and provides requirements to protect employees from the hazards of entering and working in confined spaces. This chapter applies in any of the following circumstances:

- You have confined spaces in your workplace.
 - Your employees will enter another employer's confined spaces.
 - A contractor will enter your confined spaces.
 - You provide confined space rescue services.
- You can use Table 1 to help you decide which requirements to follow for confined spaces.

Table 1
Requirements for Confined Spaces

For confined spaces that are	The requirements in the following sections apply					
	200	300	400	500	600	700
Permit-required confined spaces	X	X	X	X	X	X
Entered by a contractor	X	X	X	X	X	X
Nonpermit confined spaces	X					X
Never entered	X					
If you only:						
Use alternate entry procedures	X	X	X		X	
Have a contractor enter your space	X					
Are a rescue service provider		X	X	X		

Definition:
A **confined space** is a space that is ALL of the following:

- Large enough and arranged so an employee could fully enter the space and work.
- Has limited or restricted entry or exit. Examples of spaces with limited or restricted entry are tanks, vessels, silos, storage bins, hoppers, vaults, excavations, and pits.
- Not primarily designed for human occupancy.

Rules in other chapters that cover confined spaces may also apply to your work. You can find a list of these rules in the resources section of this chapter.

Note: • Requirements in other chapters may apply to your work. You will find some safety and health requirements are addressed on a broad level in this chapter, while being

addressed for a specific application in another rule. When this happens, both requirements apply and should not conflict. When a conflict does occur, you need to follow the more specific requirement.

- If you are uncertain which requirements to follow, contact your local labor and industries (L&I) office.
- For a complete list of local L&I offices, see the resources section of the safety and health core rules, chapter 296-800 WAC.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-100, filed 1/20/04, effective 5/1/04.]

WAC 296-809-200 Summary. Identifying and controlling permit-required confined spaces.

Your responsibility:

To identify your permit-required confined spaces and control employee entry.

You must:

Identify permit-required confined spaces.

WAC 296-809-20002

Inform employees and control entry to permit-required confined spaces.

WAC 296-809-20004

Follow these requirements when you contract with another employer to enter your confined space.

WAC 296-809-20006

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-200, filed 1/20/04, effective 5/1/04.]

WAC 296-809-20002 Identify permit-required confined spaces.

IMPORTANT:

If your workplace contains only nonpermit confined spaces and your employees do not enter another employer's confined space, you may follow only the requirements in:

- WAC 296-809-200, Identifying and controlling permit-required confined spaces; and
- WAC 296-809-700, Nonpermit confined space requirements.
- See the resources section for other chapters covering confined spaces that may apply to your work.

You must:

- Identify all permit-required confined spaces in your workplace.
- Assume any confined space is a permit-required confined space, unless you determine the space to be a nonpermit confined space.
 - If you enter the space to determine the hazards, follow the requirements in WAC 296-809-500, Permit entry procedures.
 - If you evaluate the confined space and there are no potential or actual hazards, you can consider it to be a nonpermit confined space.
 - Document your determination that the space is nonpermit, as required by WAC 296-809-700.

Definitions:

A **permit-required confined space or permit space** is a confined space that has one or more of the following characteristics capable of causing death or serious physical harm:

- Contains or has a potential to contain a hazardous atmosphere.
- Contains a material with the potential for engulfing someone who enters the space.
- Has an internal configuration that could allow someone entering to be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- Contains any physical hazard. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts.
- Contains any other recognized safety or health hazard that could either:
 - Impair the ability to self rescue;
 - OR**
 - Result in a situation that presents an immediate danger to life or health.

A **nonpermit confined space** is a confined space that does NOT contain actual hazards or potential hazards capable of causing death or serious physical harm.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-20002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-20004 Inform employees and control entry to permit-required confined spaces.

You must:

(1) Provide information about confined spaces as follows:

- Make available to affected employees and their authorized representatives all information and documents required by this chapter.
- Inform affected employees about the existence, location, and danger of any permit-required confined spaces in your workplace by:
 - Posting danger signs; or
 - Using any other equally effective means to inform employees.

Note: A sign reading "Danger-Permit Required Confined Space, DO NOT ENTER" or using pictures or other similar wording employees can understand would satisfy the requirement for a sign.

You must:

(2) Take effective measures to prevent unauthorized employees from entering permit-required confined spaces.

Note: Examples of measures to prevent employee entry include padlocks, bolted covers, special tools to remove covers, and providing employee training.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-20004, filed 1/20/04, effective 5/1/04.]

WAC 296-809-20006 Follow these requirements when you contract with another employer to enter your confined space.

IMPORTANT:

The contractor is responsible for following all confined space requirements in this chapter and in other rules that apply. For a list of other rules that may apply, see the resources section of this chapter.

You must:

- Do **all** of the following if you arrange to have another employer (contractor) perform work that involves entry into your permit-required confined space:
 - Inform the contractor:
 - That the workplace contains permit-required confined spaces and entry is allowed only if the applicable requirements of this chapter are met.
 - Of the identified hazards and your experience with each permit-required confined space.
 - Of any precautions or procedures you require for the protection of employees in or near spaces where the contractor will be working.
 - Coordinate entry operations with the contractor, when either employees or employers from the different companies will be working in or near permit-required confined spaces.
 - Discuss entry operations with the contractor when they are complete. Include the following in your discussion:
 - The program followed during confined space entry; and
 - Any hazards confronted or created.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-20006, filed 1/20/04, effective 5/1/04.]

PERMIT-REQUIRED CONFINED SPACE PROGRAM

WAC 296-809-300 Summary.

Your responsibility:

To develop your permit-required confined space program and practices.

IMPORTANT:

This section applies if employees will enter a permit-required confined space.

You must:

Develop a written permit-required confined space program.

WAC 296-809-30002

Meet these additional requirements if your employees enter another employer's confined space.

WAC 296-809-30004

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-300, filed 1/20/04, effective 5/1/04.]

WAC 296-809-30002 Develop a written permit-required confined space program.

IMPORTANT:

- Identify and evaluate the hazards of permit-required confined spaces and the work performed, to assist you in developing your entry program.

You must:

- Develop a written program, before employees enter, that describes the means, procedures, and practices you use for the safe entry of permit-required confined spaces as required by this chapter. Include the following when applicable to your confined space entry program:

- Documentation of permit entry procedures.
- Documentation used for alternate entry procedures.
- How to reclassify permit-required confined spaces to nonpermit spaces.
- Designation of employee roles, such as entrants, attendants, entry supervisors, rescuers, or those who test or monitor the atmosphere in a permit-required space.
- Identification of designated employee duties.
- Training employees on their designated roles.
- How to identify and evaluate hazards.
- Use and maintenance of equipment.
- How to prevent unauthorized entry.
- How to coordinate entry with another employer.
- How to rescue entrants.

Note: For alternate entry, your written program only needs to meet the requirements of WAC 296-809-400, Employee training, and WAC 296-809-600, Alternate entry procedures, of this chapter.

You must:

- Consult with affected employees and their authorized representatives when developing and implementing all aspects of your permit-required confined space program.

- Make the written program available to employees and their authorized representatives.

- Update your written program as necessary.

Link: You can find a sample permit-required confined space entry program in the user guide located in the resources section of

this chapter or by visiting the labor and industries web site at <http://www.lni.wa.gov/wisha/publications/App>.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-30002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-30004 Meet these additional requirements if your employees enter another employer's confined space.

You must:

- Obtain any available information about permit-required confined space hazards and entry operations from the host employer.

- Coordinate entry operations with any other employers whose employees will be working in or near the permit-required confined space.

- Inform the host employer, either through a debriefing or during entry operations, about:

- The entry program you will follow; and
- Any hazards you confronted or created in the space during entry operations.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-30004, filed 1/20/04, effective 5/1/04.]

EMPLOYEE TRAINING

WAC 296-809-400 Summary.

Your responsibility:

To make sure employees are trained to perform their designated roles safely.

You must:

Provide employee training.

WAC 296-809-40002

Certify employee proficiency.

WAC 296-809-40004

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-400, filed 1/20/04, effective 5/1/04.]

WAC 296-809-40002 Provide employee training.

You must:

- Provide training to each employee involved in permit-required confined space activities, so they acquire the understanding, knowledge and skills necessary to safely perform assigned duties.

- Establish employee proficiency in their confined space duties.

- Introduce new or revised procedures as necessary.

Note: Employers can determine employee proficiency by:

- Observing employee performance during training exercises that simulate actual confined space conditions.
- A comprehensive written examination; or
- Any other method that is effective for the employer.

You must:

- Provide training at the following times:
- Before an employee is first assigned to duties covered by this chapter.

- Before there is a change in an employee's assigned duties.

- When there is a permit-required confined space hazard for which the employee has not already been trained.

- If you have reason to believe that there are either:

- ■ Deviations from your procedures for permit-required confined space entry; or

■ Employee knowledge or use of your procedures is inadequate.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-40002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-40004 Certify employee proficiency.

You must:

- Certify employee proficiency in their assigned duties.
- Make sure the certification:
 - Contains each employee's name, the trainer's written or electronic signature or initials, and the dates of training.
 - Is available for inspection by employees and their authorized representatives.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-40004, filed 1/20/04, effective 5/1/04.]

PERMIT ENTRY PROCEDURES

WAC 296-809-500 Summary.

Your responsibility:

To establish procedures for the safe permit-required entry of confined spaces.

Implement procedures for entry permits.

WAC 296-809-50002

Use an entry permit that contains all required information.

WAC 296-809-50004

Keep and review your entry permits.

WAC 296-809-50006

Prevent unauthorized entry.

WAC 296-809-50008

Provide, maintain, and use proper equipment.

WAC 296-809-50010

Evaluate and control hazards for safe entry.

WAC 296-809-50012

Make sure you have adequate rescue and emergency services available.

WAC 296-809-50014

Use nonentry rescue systems or methods whenever possible.

WAC 296-809-50016

Make sure entry supervisors perform their responsibilities and duties.

WAC 296-800-50018

Provide an attendant outside the permit-required confined space.

WAC 296-809-50020

Make sure entrants know the hazardous conditions and their duties.

WAC 296-809-50022

Implement procedures for ending entry.

WAC 296-809-50024

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-500, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50002 Implement procedures for entry permits.

You must:

- Identify and evaluate, before employees enter, potential hazards from:
 - The permit-required confined space; and

[Ch. 296-809 WAC—p. 4]

– The work to be performed.

• Complete an entry permit before entry is authorized, documenting that you have completed the means, procedures and practices necessary for safe entry and work.

• Make sure that entrants or their representatives have an opportunity to observe any monitoring or testing, or any actions to eliminate or control hazards, performed to complete the permit.

• Identify the entry supervisor.

– Make sure the entry supervisor signs the entry permit, authorizing entry, before the space is entered.

• Make the completed permit available to entrants or their authorized representatives at the time of entry.

– Do this by either posting the completed permit at the entry location, or by any other equally effective means.

• Make sure the duration of the permit does not exceed the time required to complete the assigned task or job identified on the permit.

• Note any problems encountered during an entry operation on the permit. Use the information to make appropriate revisions to your program, entry operations, means, systems, procedures and practices.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50004 Use an entry permit that contains all required information.

You must:

• Make sure your entry permit identifies **all** of the following that apply to your entry operation:

– The space to be entered.

– Purpose of the entry.

– Date and the authorized duration of the entry permit.

– Hazards of the space to be entered.

– Acceptable entry conditions.

– Results of initial and periodic tests performed to evaluate and identify the hazards and conditions of the space, accompanied by the names or initials of the testers and by an indication of when the tests were performed.

– Appropriate measures used before entry to isolate the space, and eliminate or control hazards.

■ Examples of appropriate measures include the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit-required confined spaces.

– Names of entrants and current attendants:

■ Other means include the use of rosters or tracking systems as long as the attendant can determine quickly and accurately, for the duration of the permit, which entrants are inside the space.

– The current entry supervisor.

– A space for the signature or initials of the original supervisor authorizing entry.

– Communication procedures for entrants and attendants to maintain contact during the entry.

– Equipment provided for safe entry, such as:

■ Personal protective equipment (PPE).

■ Testing equipment.

■ Communications equipment.

■ Alarm systems.

■ Rescue equipment.

(2/17/09)

- Rescue and emergency services available, and how to contact them. Include equipment to use, and names and contact information.
- Other information needed for safety in the particular confined space.
- Additional permits issued for work in the space, such as for hot work.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50004, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50006 Keep and review your entry permits.

You must:

- Keep entry permits for at least one year.
- Keep entry permits or other atmospheric monitoring records that show the actual atmosphere an employee entered or worked in, as employee exposure records.
- Review your permit-required confined space entry program as follows:
 - Conduct a review when you have any reason to believe your entry program may not protect employees, and revise your program before allowing subsequent entries.

Note: Examples of circumstances requiring the review of your program include the following:

- There is unauthorized entry of a permit space.
- A permit space hazard not covered by the permit is found.
- A condition prohibited by the permit occurs.
- An injury or near-miss occurs during entry.
- There is a change in the use or configuration of a permit space.
- An employee complains about the effectiveness of the program.

You must:

- Review canceled entry permits within one year following each entry to evaluate:
 - Your permit-required confined space program.
 - The protection provided to employees entering permit-required confined spaces.
- Update your written permit-required confined space entry program as necessary.

Note: Employers may perform a single annual review covering all entries performed during a twelve-month period. If no entry is performed during a twelve-month period, no review is necessary.

Reference: Keep employee exposure records according to chapter 296-62 WAC, Part B, Access to records.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50006, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50008 Prevent unauthorized entry.

You must:

- Implement measures necessary to prevent unauthorized entry into permit-required confined spaces, when conducting authorized entry.

Note:

- When removing entrance covers to open the confined space, protect entrants and those outside the confined space from hazards.
- Examples of measures to prevent unauthorized entry are signs, barricades, warning tape, and an attendant.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50008, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50010 Provide, maintain, and use proper equipment.

You must:

- Provide the equipment in Table 2, when needed and at no cost to employees.
- Make sure that employees use provided equipment properly.
- Maintain the provided equipment.

**Table 2
Equipment Provided to Employees at No Cost**

Type of equipment	For
Testing and monitoring equipment	Evaluating permit-required confined space conditions
Ventilating equipment	Obtaining and maintaining acceptable entry conditions
Communication equipment	Effective communication between the attendant and the entrants and to initiate rescue when required
Personal protective equipment (PPE)	Protecting employees from hazards of the space or the work performed
Lighting equipment	Employees to see well enough to work safely and to exit the space quickly in an emergency
Barriers or shields, such as pedestrian, vehicle or other barriers	Protecting employees from hazards outside of the space
Ladders	Safe entry and exit by entrants
Rescue and emergency equipment, except for equipment provided by the rescue service provider	Safe and effective rescue
Any other equipment	Safe entry into and rescue from permit-required confined spaces

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50010, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50012 Evaluate and control hazards for safe entry.

- Evaluate and control hazards for safe entry into permit-required confined spaces by doing all the following:
 - Test for atmospheric hazards, in this order:
 - Oxygen.
 - Combustible gases and vapors.
 - Toxic gases and vapors.
 - Provide each entrant or their authorized representative an opportunity to observe any of the following:
 - Preentry testing.
 - Subsequent testing.
 - Monitoring of permit-required spaces.
 - Reevaluate the permit-required space in the presence of any entrant, or their authorized representative, who requests this to be done because they have reason to believe that the evaluation of that space may not have been adequate.
 - Upon request, immediately provide each entrant or their authorized representative, with the results of any testing required by this rule.

- Continuously monitor conditions in areas where entrants are working, when isolation of the space is not feasible.
- Examples would be a large space or space that is part of a continuous system, such as a sewer.
- Evaluate space conditions during entry as follows:

Table 3
Evaluating Space Conditions

You must:	In order to
Test conditions before entry	Determine that acceptable entry conditions exist before entry is authorized by the entry supervisor
Test or evaluate space conditions during entry	Determine that acceptable entry conditions are being maintained during entry operations
Evaluate entry operations	Make sure entrants of more than one employer working at the same time in or around a permit-required confined space, do not endanger each other

IMPORTANT:

This section applies to both:

- Employers whose employees use permit entry procedures; and
- Employers who provide rescue services.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-50012, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50014 Make sure you have adequate rescue and emergency services available.

You must:

(1) Make sure you have adequate rescue and emergency services available during your permit-required confined space entry operations.

- Evaluate and select rescue teams or services who can:
 - Respond to a rescue call in a timely manner. Timeliness is based on the identified hazards. Rescuers must have the capability to reach potential victims within an appropriate time frame based on the identified permit space hazards.
 - Proficiently rescue employees from a permit-required confined space in your workplace. Rescuers must have the appropriate equipment for the type of rescue.
- Make sure that at least one member of the rescue team or service holds a current certification in first aid and cardiopulmonary resuscitation (CPR).
- Inform each rescue team or service about the hazards they may confront when called to perform rescue.
- Provide the rescue team or service with access to all permit spaces from which rescue may be necessary.
 - This will allow them to develop appropriate rescue plans and to practice rescue operations.

Note: What will be considered timely will vary according to the specific hazards involved in each entry. For example, chapter 296-842 WAC, Respirators, requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) for work areas considered to contain an IDLH atmosphere.

(2) Employees assigned to provide permit-required confined space rescue and emergency services must be provided, at no cost to the employee, with:

- Personal protective equipment (PPE) needed for safe entry.
- Other equipment required to conduct rescues safely.
- Training so they are:
 - Proficient in the use of the PPE and other equipment.
 - Proficient as an entrant of permit-required confined spaces.
 - Able to safely perform assigned rescue and emergency duties.
 - Knowledgeable in basic first aid and cardiopulmonary resuscitation (CPR).
- Practice sessions for permit-required confined space rescues **at least** once every twelve months where dummies, manikins, or actual persons are removed from either:
 - The actual permit spaces; or
 - Representative permit spaces that simulate the opening size, configuration, and accessibility, of permit spaces where rescue will be performed.
- (3) Establish procedures for:
 - Contacting rescue and emergency services.
 - Rescuing entrants from permit-required confined spaces.
 - Providing necessary emergency services to rescued entrants.
 - Preventing unauthorized persons from attempting a rescue.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 09-05-071, § 296-809-50014, filed 2/17/09, effective 4/1/09; 04-03-081, § 296-809-50014, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50016 Use nonentry rescue systems or methods whenever possible.

You must:

- Use nonentry retrieval systems or methods to rescue entrants in a permit-required confined space unless this:
 - Would increase the overall risk of injury to entrants; or
 - Would not contribute to the rescue of the entrant.
- Make sure each entrant uses a chest or full-body harness, with a retrieval line attached to the harness at one of the following locations:
 - At the center of the employee's back, near shoulder level.
 - Above the employee's head.
 - At another point which presents a profile small enough for the successful removal of the employee.
- Attach the retrieval line to a mechanical device or fixed point outside the space, so rescue can begin as soon as necessary.
- Make sure a mechanical device is available to retrieve entrants from vertical spaces more than five feet (1.52 m) deep.

Note: When you can demonstrate that the use of a chest or full-body harness is not feasible or creates a greater hazard, then you may use wristlets or another method shown to be the safest and most effective alternative.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-50016, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50018 Make sure entry supervisors perform their responsibilities and duties.

You must:

- Make sure that an entry supervisor:
 - Authorizes the entry into a permit-required confined space by signing the entry permit.
 - Oversees entry operations.
 - Knows about the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of the exposure.
 - Verifies and checks **all** of the following:
 - The appropriate entries have been made on the permit.
 - All tests specified by the permit have been conducted.
 - All procedures and equipment specified by the permit are in place before approving the permit and allowing entry to the space.
 - Terminates the entry and cancels the permit when:
 - The assigned task or job has been completed.
 - A condition in the space that is not covered by the entry permit is discovered.
 - Verifies that rescue services are available and that there is a way to contact them.
 - Removes unauthorized individuals who enter or attempt to enter the permit-required confined space during entry operations.
 - Determines that entry operations remain consistent with the terms of the entry permit and acceptable entry conditions are maintained:
 - Whenever responsibility for a permit-required space entry operation is transferred; and
 - At regular intervals dictated by the hazards and operations performed within the space.

- Note:**
- Make sure entry supervisors have the required knowledge and proficiency to perform the job duties and responsibilities required by this chapter.
 - The entry supervisor may also perform other duties under this chapter, such as attendant or entrant, if they are trained and proficient in those duties.
 - The responsibility of the entry supervisor may be passed from one supervisor to another during an entry operation.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-50018, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50020 Provide an attendant outside the permit-required confined space.

IMPORTANT:

- The number of attendants assigned should be tailored to the requirements of the space and the work performed.
- You need to assess if it is appropriate or possible to have multiple permit spaces monitored by a single attendant, or have an attendant stationed at a location outside each space. Video cameras and radios are examples of tools that may assist an attendant monitoring more than one space.
- Attendants may be stationed at any location outside the permit-required confined space if the duties described in this section can be effectively performed for each space that is monitored.

You must:

- Provide at least one attendant outside the permit-required confined space during entry operations.
- Make sure each permit-required confined space attendant:
 - Understands the hazards that may be faced during entry, including the mode, signs or symptoms, and results of exposure to the hazards.

(2/17/09)

- Is aware of the behavioral effects of exposure to the hazard.
- Continuously maintains an accurate count of entrants in the space.
- Maintains an accurate record of who is in the permit-required confined space.
- Communicates with entrants as necessary to monitor their status or alert them of the need to evacuate the space.
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space.
- Orders entrants to evacuate the space immediately if **any** of the following conditions occur:
 - A prohibited condition.
 - The behavioral effects of hazardous exposure in an entrant.
 - A situation outside the space that could endanger entrants.
 - The attendant cannot effectively and safely perform all the duties required in this chapter.
- Takes the following actions when unauthorized persons approach or enter a space:
 - Warn unauthorized persons to stay away from the space.
 - Tells the unauthorized persons to exit immediately if they have entered the space.
 - Informs entrants and the entry supervisor if unauthorized persons have entered the space.
- Performs nonentry rescues as specified by your rescue procedure.
- Has the means to respond to an emergency affecting one or more of the permit spaces being monitored without preventing performance of the attendant's duties to the other spaces being monitored.
- Carries out no duties that might interfere with their primary duty to monitor and protect the entrants.
- Calls for rescue and other emergency services as soon as entrants may need assistance to escape from the space.
- Monitors entry operations until relieved by another attendant or all entrants are out of the space.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-50020, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50022 Make sure entrants know the hazardous conditions and their duties.

You must:

- Make sure that all entrants:
 - Know the hazards they may face during entry, including the mode, signs or symptoms, and results of exposure to the hazards.
 - Use equipment properly.
 - Communicate with the attendant as necessary so the attendant can:
 - Monitor entrant status.
 - Alert entrants of the need to evacuate.
 - Alert the attendant whenever either of these situations exist:
 - A warning sign or symptom of exposure to a dangerous situation such as, behavioral changes, euphoria, giddiness potentially from lack of oxygen or exposure to solvents.
 - A prohibited condition.

[Ch. 296-809 WAC—p. 7]

– Exit from the permit-required confined space as quickly as possible when one of the following occurs:

- The attendant or entry supervisor gives an order to evacuate.
- 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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50022, filed 1/20/04, effective 5/1/04.]

WAC 296-809-50024 Implement procedures for ending entry.

You must:

- Make sure you terminate the entry when entry operations are completed, including securing an entrance cover and canceling the permit.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-50024, filed 1/20/04, effective 5/1/04.]

WAC 296-809-600 Alternates entry procedures.

Summary:

Your responsibility:

To choose alternate entry procedures for spaces where the only hazard is a hazardous atmosphere.

IMPORTANT:

In addition to this section, you also need to meet the requirements in the following sections of this chapter:

- WAC 296-809-200, Identifying and controlling permit-required confined spaces.
- WAC 296-809-300, Permit-required confined space program.
- WAC 296-809-400, Employee training.

You must:

Make sure the following conditions are met if using alternate entry procedures.

WAC 296-809-60002

Follow these alternate entry procedures for permit-required confined spaces.

WAC 296-809-60004

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-600, filed 1/20/04, effective 5/1/04.]

WAC 296-809-60002 Make sure the following conditions are met if using alternate entry procedures.

You must:

• Make sure, when using alternate entry procedures, instead of permit entry procedures, that you have monitoring and inspection data that supports the following:

- That the only hazard of the permit-required confined space is an actual or potentially hazardous atmosphere.
- That continuous forced air ventilation alone is all that is needed to maintain the permit-required confined space for safe entry.

• Make sure an entry to obtain monitoring and inspection data or to eliminate hazards is performed according to WAC 296-809-500, Permit entry procedures.

• Make sure all documentation produced is available to each affected employee and their authorized representative.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-60002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-60004 Follow these alternate entry procedures for permit-required confined spaces.

You must:

• Use the following alternate entry procedures:

– Eliminate any unsafe conditions before removing an entrance cover.

■ When entrance covers are removed, promptly guard the opening with a railing, temporary cover, or other temporary barrier to prevent accidental falls through the opening and protect entrants from objects falling into the space.

■ Certify that preentry measures have been taken (such as safe removal of the cover and having protection needed to gather preentry data), with the date, location of the space, and signature of the person certifying.

■ Make the preentry certification available before entry to each entrant.

– Before an employee enters the confined space, test the internal atmosphere with a calibrated, direct-reading instrument for all of the following, in this order:

■ Oxygen content.

■ Flammable gases and vapors.

■ Potential toxic air contaminants.

– Provide entrants, or their authorized representatives, with an opportunity to observe the preentry and periodic testing.

– Make sure the atmosphere within the space is not hazardous when entrants are present.

– Use continuous forced air ventilation, as follows:

■ Wait until the forced air ventilation has removed any hazardous atmosphere before allowing entrants into the space.

■ Direct forced air ventilation toward the immediate areas where employees are, or will be, and continue ventilation until all employees have left the space.

■ Provide the air supply from a clean source and make sure it does not increase hazards in the space.

– Test the atmosphere within the space as needed to make sure hazards do not accumulate.

– If a hazardous atmosphere is detected during entry, do all of the following:

■ Evacuate employees from the space immediately.

■ Evaluate the space to determine how the hazardous atmosphere developed.

■ Implement measures to protect employees from the hazardous atmosphere before continuing the entry operation.

■ Verify the space is safe for entry before continuing the entry operation.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.-060. 04-03-081, § 296-809-60004, filed 1/20/04, effective 5/1/04.]

WAC 296-809-700 Nonpermit confined spaces requirements.

Summary:

Your responsibility:

To make sure any space you classify as nonpermit, does not have the potential to contain serious health or safety hazards.

You must:

Follow these requirements when classifying a confined space as a nonpermit confined space.

WAC 296-809-70002

Reevaluate nonpermit confined spaces if hazards develop.

WAC 296-809-70004

IMPORTANT:

A confined space may be classified as a nonpermit confined space for as long as the hazards remain eliminated. Once a hazard is present, you must follow all requirements of this chapter that apply.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-700, filed 1/20/04, effective 5/1/04.]

WAC 296-809-70002 Follow these requirements when classifying a confined space as a nonpermit confined space.

You must:

- Make sure the confined space meets these conditions to be classified as nonpermit confined spaces:
 - The confined space does not contain an actual or potential hazardous atmosphere.
 - The confined space does not contain hazards capable of causing death or serious physical harm. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts.
 - If you must enter to remove hazards, the space must be treated as a permit-required confined space until hazards have been eliminated.

- Note:**
- Controlling atmospheric hazards through forced air ventilation does not eliminate the hazards.
 - You should evaluate the use of lockout-tagout, as covered in chapter 296-803 WAC, to determine if using it fully eliminates the hazard.
 - You are allowed to use alternate entry procedures covered in WAC 296-809-600, if you can demonstrate that forced air ventilation alone will control all hazards in the space.

You must:

- Document how you determined the confined space contained no permit-required confined space hazards. Certify this documentation with the following:
 - Date.
 - Location of the space.
 - Signature of the person making the determination.
- Make the certification available to each entrant, or their authorized representative.

- Note:** This certification must be completed every time a permit-required confined space is reclassified as a nonpermit space.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. 07-03-163, § 296-809-70002, filed 1/24/07, effective 4/1/07; 04-03-081, § 296-809-70002, filed 1/20/04, effective 5/1/04.]

WAC 296-809-70004 Reevaluate nonpermit confined spaces if hazards develop.

You must:

- Reclassify a nonpermit confined space to a permit-required confined space, if necessary, when changes in the use or configuration of the space increase the hazards to entrants.
- Make sure all employees exit the space if hazards develop. You must then reevaluate the space and determine whether it must be reclassified as a permit-required confined space.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-03-081, § 296-809-70004, filed 1/20/04, effective 5/1/04.]

(2/17/09)

WAC 296-809-800 Definitions.

Acceptable entry conditions:

The conditions that must exist in a permit-required confined space to allow safe entry and work.

Attendant:

An individual stationed outside one or more permit-required confined spaces to monitor the entrants.

Blanking or blinding:

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

Confined space:

A space that is **all** of the following:

- Large enough and arranged so an employee could fully enter the space and work.
- Has limited or restricted entry or exit. Examples of spaces with limited or restricted entry are tanks, vessels, silos, storage bins, hoppers, vaults, excavations, and pits.
- Not primarily designed for human occupancy.

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.

Emergency:

Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit-required confined space that could endanger authorized entrants.

Engulfment:

The surrounding capture of a person by a liquid or finely divided (flowable) solid substance that can be inhaled 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, or crushing.

Enter (entry):

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

- Note:** If the opening is large enough for the worker to fully enter the space, a permit is required even for partial body entry. Permits are not required for partial body entry where the opening is not large enough for full entry, although other rules such as chapter 296-803 WAC, lockout-tagout, and chapter 296-841 WAC, Airborne contaminants, may apply.

Entrant:

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

Entry permit (permit):

The written or printed document that is provided by you to allow and control entry into a permit-required confined space and that contains the information required in WAC 296-809-500, Permit entry procedures.

Entry supervisor:

The person (such as the employer, crew leader, or crew chief) responsible for:

- Determining if acceptable entry conditions are present at a permit-required confined space where entry is planned;

- Authorizing entry and overseeing entry operations; and
- Terminating entry as required.

Hazardous atmosphere:

An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit-required confined space), injury, or acute illness caused by one or more of the following:

- Flammable gas, vapor, or mist in excess of ten percent of its lower flammable limit (LFL).
- Airborne combustible dust at a concentration that meets or exceeds its LFL.

Note: This concentration may be approximated as a condition in which the dust obscures vision at a distance of five feet (1.52 m) or less.

- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.

– Atmospheric concentration of any substance which may exceed a permissible exposure limit. For additional information about atmospheric concentration, see chapter 296-62 WAC, Parts F, G, and I, General occupational health standards and chapter 296-841 WAC, Airborne contaminants.

Note: An airborne concentration of a substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

- Any other atmospheric condition that is immediately dangerous to life or health.

Note: You can find guidance on establishing acceptable atmospheric conditions for air contaminants, which have no WISHA-determined doses or permissible exposure limits using other sources of information, such as:

- Material safety data sheets required by WAC 296-800-170, Employer chemical hazard communication.
- Published information.
- Internal documents.

Hot work permit:

A written authorization to perform operations, for example, riveting, welding, cutting, burning, and heating, that can provide a source of ignition.

Immediately dangerous to life or health (IDLH):

Any of the following conditions:

- An immediate or delayed threat to life.
- Anything that would cause irreversible adverse health effects.
- Anything that would interfere with an individual's ability to escape unaided from a permit-required confined space.

Note: Some materials - hydrogen fluoride gas and cadmium vapor, for example - may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse twelve to seventy-two hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health (IDLH).

Inerting:

The displacement of the atmosphere in a permit-required confined space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Note: This procedure produces an IDLH oxygen-deficient atmosphere.

Isolation:

The process by which a permit-required confined 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; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

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.

Nonpermit confined space:

A confined space that does NOT contain actual hazards or potential hazards 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 or permit space:

A confined space that has one or more of the following characteristics capable of causing death or serious physical harm:

- Contains or has a potential to contain a hazardous atmosphere.
- Contains a material with the potential for engulfing someone who enters.
- Has an internal configuration that could allow someone entering to be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross section.
- Contains any physical hazard. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts.
- Contains any other recognized serious safety or health hazard that could either:
 - Impair the ability to self-rescue; or
 - Result in a situation that presents an immediate danger to life or health.

Permit-required confined space program:

An overall program for:

- Controlling and appropriately protecting employees from permit-required confined space hazards; and
- Regulating employee entry into permit-required confined spaces.

Prohibited condition:

Any condition in a permit-required confined space that is not allowed by the permit during the authorized entry period.

Rescue service:

The personnel designated to rescue employees from permit-required confined spaces.

Retrieval system:

The equipment used for nonentry rescue of persons from permit-required confined spaces, such as a retrieval line, full-body harness or wristlets, and a lifting device or anchor.

Testing:

The process of identifying and evaluating the hazards that entrants may be exposed to in a permit-required confined space. Testing includes specifying the tests that are to be performed in the permit-required confined space.

Note: Testing allows employers to devise and implement adequate controls to protect entrants during entry, and to determine if acceptable entry conditions are present.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 07-05-062, § 296-809-800, filed 2/20/07, effective 4/1/07; 04-03-081, § 296-809-800, filed 1/20/04, effective 5/1/04.]