

4.9 Confined Space Program

Purpose

The purpose of this written program is to identify all permit spaces at this workplace and ensure that all authorized employees will enter, work in, and exit the spaces safely. The Port of Newport will inform all affected employees when there are changes to this written program.

Scope

The Port of Newport will do the following to ensure the health and safety of those who work in and around permit spaces:

1. Evaluate each confined space to determine if it has the characteristics of a permit space.
2. Develop a catalogue of all permit spaces
3. Inform all employees of the location and the hazards in each permit space.
4. Prevent unauthorized persons from entering a permit space.
5. Train authorized entrants, attendants, and entry supervisors so that they have the skills necessary to fulfill their duties.
6. Provide all necessary equipment for permit-space work at no cost to employees, maintain the equipment, and ensure that employees use the equipment properly.
7. Inform contractors about the permit-space program and coordinate entry operations.

Responsibilities

The Port of Newport has ultimate responsibility for the Confined Space Program for all employees who are required to enter into a permit area.

The Director of Operations is responsible for the overall implementation and maintenance of the written program, including employee certification or training that satisfies the requirements of 437-002-0146.

The Department Head is responsible for

1. The identification of all permit spaces at the workplace.
2. Ensuring that authorized entrants, attendants, entry supervisors, and on-site emergency responders are properly trained and have periodic refresher training. Ensure that all other affected employees have awareness training.
3. Ensuring that emergency rescue is available and that responders are informed about all permit spaces at the workplace and have access to the spaces for drills and training exercises.
4. Ensuring that all equipment for authorized attendants and entrants is properly maintained and is available when needed.

Training

The Port of Newport will train all authorized entrants, attendants, and entry supervisors so that they have the understanding, knowledge, and skills necessary to perform their jobs. Training will be provided in the following manner:

- Before the employee is first assigned duties.
- Before there is a change in the employee's assigned duties.
- When there is a change in permit-space operations that presents a hazard for which the employee has not been trained.
- When the employee does not follow entry procedures.

The Port of Newport will ensure that employees have been trained by recording each employee's name, the type of training, the trainer's signature, and the training date. The record will be available for inspection by employees and their authorized representatives.

Awareness training will be provided to all employees who work in areas where permit spaces are present. Repeat awareness training will be provided when there is a change in the written program and/or when there are new or previously unidentified permit spaces.

Awareness training must explain:

1. The written permit-space program
2. How to recognize a permit space
3. How entry is authorized by the entry permit
4. How entry is authorized by the alternate entry procedures (if used)

Procedures for entering a permit space

If only workers of other employers (contract workers) will enter the space:

If contract workers only will enter the permit space the Department Head will inform the contractor about all hazards in the space, the permit-space program, and company safety rules. The Department Head will review and discuss each contracted job with the contractor before the work begins. The contractor will inform the Department Head about the permit-space program that the contractor will follow. If the contractor's permit-space program is less effective than the company's program, the contractor will follow the company's program.

If contract workers and host employees will enter the space:

The Department Head will coordinate entry operations with the contractor so that contract workers and company employees work together, following this company's permit space-program.

If Port employees only will enter the space

1. Obtain a Pre-entry procedure entry permit.
2. Specify the acceptable conditions for entering the permit space. Entry into a permit space is prohibited until the atmosphere has been determined to be safe from outside the space. If direct reading instrumentation is used it must include those for *oxygen content*, *flammability*, and *toxic gasses*, in that order. The percentage of oxygen for entry must not be less than 19.5 percent or more than 23.5 percent at normal atmospheric pressure. If the percentage of oxygen falls

below 19.5 percent, entrants must use appropriate air-supplying respirators. The atmosphere in the space must be checked at least every 10 minutes or continuously monitored if required

3. Provide authorized entrants with the opportunity to observe any monitoring or testing of the space.
4. Isolate the permit space from sources of hazardous energy. Disconnect hazardous equipment from the sources of hazardous energy, whenever possible. All chemical and steam pipes, treating agents, and lines must be blanked or removed. Electrical isolation must be accomplished by locking out circuit breakers or disconnects in the off position with a key-type lock. The key must remain with the authorized entrant. If more than one person enters the space, a group lockout procedure is allowed. (Refer to the lockout/tagout program for further instructions)
5. Purge, flush, or ventilate the space to eliminate or control atmospheric hazards. Initial testing of the atmosphere must be performed from outside the space. Continuous ventilation must be maintained in the space, when possible.
6. Ensure that entrants have the equipment they need to do their jobs (including rescue equipment) and they know how to use the equipment.
7. Set up barriers, if necessary, to protect entrants from external hazards.
8. Post a warning at the entrance to the space that says: **WARNING, PERMIT-REQUIRED CONFINED SPACE. ENTRY BY PERMIT ONLY.** If special equipment is required for entry, the appropriate information may be included on the signs; for example: **RESPIRATOR REQUIRED FOR ENTRY** or **LIFELINE REQUIRED FOR ENTRY.** Verify that conditions in the space are safe for the duration of entry.
9. Complete and sign the entry permit to authorize entry into the permit space.
10. Display the completed entry permit at the time of entry so that authorized entrants can confirm that pre-entry preparations have been completed.

Conditions during entry

1. All electrical equipment in the space must be properly grounded.
2. The space must have adequate illumination.
3. All unauthorized persons must be kept away from the space.
4. Welding and burning equipment other than torches and hoses must not be taken into the space. Gas cylinders or welding machines must remain outside the space. They must be blocked if they are on wheels. All welding equipment must have quick shut-offs that are under control of the attendant. When gas welding or cutting is suspended, the gas supply must be cut off at the cylinder and the torch removed from the confined space.
5. The attendant must know how to shut down welding and burning equipment when entrants perform hot work.
6. If entrants need a ladder to enter a permit space, the ladder must be secure and must not be removed when they are in the space.
7. Entrants must leave the permit space immediately when any of the following occurs: 1. An order to evacuate is given by the attendant or entry supervisor. 2. An entrant recognizes any warning sign or symptom of exposure. 3. An

- evacuation alarm is activated. 4. An entrant is unable to communicate with the attendant. 5. An entrant recognizes any other physical hazards that are unsafe.
8. An attendant immediately outside the space must monitor authorized entrants. The attendant must have a means of continuous communication with entrants.
 9. If entrants are injured or become ill, the attendant must contact 911.

Procedure following an entry

1. The entry supervisor will terminate entry and cancel the entry permit when entry operations have been completed or an emergency occurs in or near the space.
2. The Port of Newport will retain each canceled entry permit for at least one year to evaluate the permit-space program.

Completing the entry permit

Before employees enter a permit space, the entry supervisor must complete and sign an entry permit that verifies the permit space is safe for employees to enter. The entry permit must be posted at the permit-space entry and include the following information:

1. Location of the permit space.
2. Purpose of entry.
3. Entry date and the time employees will enter.
4. Authorized entrants' names.
5. Authorized attendants' names.
6. Entry supervisor's name and signature.
7. Hazards in the space.
8. How hazards will be controlled so that the space is safe to enter.
9. Acceptable entry conditions.
10. Testing data and testers' initials that certify the space is safe to enter.
11. Names of emergency responders and instructions for contacting them.
12. Communication procedures used by entrants and attendants.
13. A list of all equipment, including PPE, necessary to ensure entrants' safety.
14. A description of any other permits that entrants need to work in the space.

Procedure for completing an entry permit

1. Obtain an entry permit before employees enter the space.
2. Accomplish all pre-permit activities required for entering the space.
3. Complete all items on the entry permit.
4. Sign the permit. If any item on the permit is checked as "NO" (meaning not yet completed or available), the permit must not be signed.
5. Attach a copy of the entry permit outside the confined space. Keep it there until the entry operations are finished and the entry supervisor cancels it.

Alternate procedure for entering a permit space

If the space has hazards that can be eliminated, or atmospheric hazards that can be controlled by forced-air ventilation, or both, employees can enter the space if they follow this procedure:

1. Identify the hazards of the space.
2. Identify and follow the methods to eliminate the hazards; verify that the methods used successfully eliminated those hazards.
3. When you have hazards that can be controlled with continuous forced-air ventilation, identify those atmospheric hazards. Test the air within the space with direct-reading instruments before entering the space to ensure that all identified hazards are adequately controlled. The oxygen content must be between 19.5% and 23.5%, but should also be within 0.1% of the oxygen level outside of the space. Ensure that all other identified atmospheric hazards are absent before entering the space. Continuously monitor the space during the entire duration of the entry.
4. When using a direct-reading instrument to test the air, ensure that it passes a “bump test” at the beginning of the work shift it will be used.
5. Ensure that any condition in the space that makes it unsafe to remove the entrance cover is eliminated before the cover is removed.
6. Ensure the entrant has a positive means of communication while in the space.
7. Set up barriers, if necessary, to protect entrants from external hazards.
8. Follow the written program and obtain an entry permit if it is necessary to enter the space to eliminate hazards or to test the space for atmospheric hazards.
9. Document each entry. Include:
 - a) The location of the space
 - b) The hazards associated with the space
 - c) Measures taken to eliminate the hazards
 - d) Measures used to control hazardous atmospheres (when applicable)
 - e) The name of direct-reading instruments used to test the atmosphere and the calibration date (when applicable)
 - f) The results of atmospheric testing (when applicable)
 - g) The entry date
 - h) The duration of the entry
 - i) Any conditions that caused the evacuation of the space
 - j) The name, title, and signature of the person responsible for ensuring that the space is safe to enter
10. Keep the document where the space is located for the duration of the entry.
11. Document any deviation from alternate entry procedures.

Duties of entrants, attendants, and entry supervisors

Authorized entrants, attendants, and entry supervisors have the following duties and responsibilities:

Duty/responsibility	Entrant	Attendant	Supervisor
Keep unauthorized entrants away from the space.		x	x
Remove unauthorized individuals who enter or who attempt to enter the permit space.			x
Communicate with entrants, monitor their status, and tell them when to evacuate.		x	
Inform the entrants and the entry supervisor if unauthorized persons enter the permit space.		x	
Communicate with the attendant regularly.	x		
Remain outside the space during entry operations until relieved by another attendant.		x	
Know the number and identity of authorized entrants.		x	
Use all equipment properly.	x	x	
Determine that acceptable entry conditions are maintained.		x	x
Order entrants to evacuate the space in an emergency		x	
Exit from the permit space immediately upon an order to evacuate, an alarm warning, or a sign of a hazardous condition.	x		
Know permit-space hazards, including the mode, symptoms, and consequences of exposure.	x	x	x
Notify the attendant of any signs or symptoms of exposure to a hazardous condition	x		
Terminate the entry and cancel the permit when entry operations are finished or if a prohibited condition arises.			x
Verify that entry conditions are acceptable before signing the permit and allowing entry.			x
Perform non-entry rescues if necessary.		x	
Verify that rescue services are available and the means for summoning them are effective.			x
Summon emergency responders when entrants need their services.		x	

