

PERSONNEL POLICIES AND PROCEDURES
OREGON MILITARY DEPARTMENT
AGP POLICY 99.200.04

Subject: Confined Space Entry Plan

Applicability: Employees whose classification may cause them to come in contact with Confined Spaces. Site Specific Plans are admissible under this policy. A copy of such plans shall be maintained with the State Safety Office in AGP.

Effective Date: 1 July 2009

I. PURPOSE: The purpose of this plan is to establish confined space entry standards for all Oregon Military Department (OMD) employees and contractors at OMD facilities or sites under the control of OMD.

II. GENERAL PLAN: The Confined Space Entry Plan (CSEP) is a key document to assist our agency in implementing and ensuring compliance with the standard, thereby protecting our employees.

III. DEFINITIONS:

1. **Confined space:** An area that (1) is large enough that an employee can enter and perform assigned work, and (2) that has limited openings for entry and exit, and (3) is not designed for continuous worker occupancy. Examples of such confined space areas include, but are not limited to, sewers, storage tanks, pits, tunnels, and excavations.
2. **Permit-required confined space (permit-space):** A confined space that has one or more of the following characteristics: (1) contains or may contain a hazardous atmosphere; or (2) contains a material that has the potential to engulf an entrant; or (3) may trap or asphyxiate an entrant; or (4) contains any other recognized serious safety or health hazard.
3. **Oxygen Deficient Atmosphere:** Atmospheres that contain less than 19.5 percent oxygen.
4. **Oxygen Enriched Atmosphere:** Atmospheres that contain more than 23.5 percent oxygen.

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5. **Flammable Atmosphere:** Flammable gas, vapor, or mist in excess of 10 percent of the lower flammable limit of the material in question. These are often toxic as well as flammable. Atmospheric concentrations of dust which obscure vision at a distance of five feet or less are also potentially flammable.
6. **Toxic Atmosphere:** Atmospheres having concentrations of airborne chemicals in excess of permissible exposure limits (PELs) as defined by OSHA or American Congress of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs). Material Safety Data Sheets (MSDS) can provide guidance in establishing atmospheric conditions for air contaminants with no PEL.
7. **Entry supervisor:** The person responsible for ensuring the permit-space is safe for entry, and who also signs the confined space entry permit.
8. **Authorized entrant:** An employee authorized by OMD to enter a permit-space.
9. **Attendant:** An individual stationed outside permit-spaces to monitor authorized entrants.

IV. **Policy:**

1. It is the policy of the Oregon Military Department to provide a safe workplace for all employees. To that end, the department shall establish confined space entry standards for all OMD employees and contractors at OMD facilities. OMD shall enforce this policy as a means of protecting the health and safety of workers while entering, working in, and exiting confined spaces. Failure of employees to adhere to the provisions of this program may result in disciplinary action, up to and including dismissal. Before entry, the worker(s) shall be made aware of the hazards of confined space work and the safe work practices necessary.

V. **Workplace Evaluation:**

1. Each workplace will be evaluated to determine if there are any permit-required confined spaces at the site. It is important to determine which spaces are

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permit-required confined spaces (permit-spaces) and which are confined spaces (see Definitions). Entry requirements into permit-spaces are much more stringent than entry into confined spaces. Attachment A Confined Space Entry Evaluation Sheet is a tool to help determine which spaces are permit-spaces.

VI. Labeling and Posting:

1. At all entrances to permit-required confined spaces, signs will be posted that include the following or similar language:

**Danger
Permit-Required Confined Space
Do Not Enter**

2. The following statements will be added where necessary:

Respirator Required for Entry

**Lifeline Required for Entry
Hot Work Permitted**

Or

No Hot Work

VII. Unauthorized Entry:

1. Measures to prevent unauthorized entry include, but are not limited to, bolting of access doors, posting the spaces, and erecting temporary barriers at open spaces.

VIII. Hazard Identification, Evaluation and Control:

1. All permit-space hazards will be identified and controlled prior to entering the space. Measures for identifying hazards include atmospheric testing. Control measures include isolation, lockout/tagout, and ventilation. Entrants will be protected from external hazards, such as vehicles, by the use of barriers or other means.
 - A. Permit-Space Entry Equipment
2. For permit-space entry the following types of equipment will be used as necessary:

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- A. Atmospheric monitoring equipment;
 - B. Ventilation equipment;
 - C. Ladders, scaffolding, and personal fall protection;
 - D. Retrieval equipment;
 - E. Lighting;
 - F. Communications equipment;
 - G. Barriers and shields;
 - H. Personal protective equipment, including respirators.
3. The equipment to be used will be dependent upon the space. Specific equipment to be used will be listed on the entry permit for that specific entry.
4. Personnel Needed for Entry:
- A. For each permit-required confined space entry (unless using the Alternate Entry Procedures described in that section of this policy), the following personnel will be necessary:
 - B. Authorized Entrants
 - 1. The authorized entrant(s) will be stated on the permit prior to entry. These are the only individuals who may enter the space while the permit is in effect.
 - C. Attendants
 - 1. During entry into permit-required confined spaces, at least one attendant will be stationed outside the space to maintain constant communication with the entrant. The attendant is not the designated rescue person and should only attempt non-entry rescues. In the event of an emergency, the attendant will summon rescue personnel.
 - D. Entry Supervisors

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1. Each permit-required confined space entry will have an entry supervisor who is responsible for all aspects of the entry. The entry supervisor may also be the authorized entrant or attendant for a given entry.
2. Rescue services will also be available during entry. The rescue services contact will be listed on the permit.

IX. Training:

1. All personnel involved in permit-required confined space entry will be trained on the hazards associated with the work. The training will be provided before the employee is assigned duties under this policy and whenever there is a change in assigned duties or a new hazard is introduced. This training will comply with OR-OSHA regulation 1910.146 (h)-(j) and, as a minimum, cover the following:
 - A. Hazard recognition, including symptoms of exposure to hazards;
 - B. Proper use of personal protective equipment, respirators, and other safety equipment;
 - C. Communication procedures;
 - D. Summoning rescue services;
 - E. Prevention of unauthorized entry;
 - F. Air monitoring procedures;
 - G. Performing non-entry rescue;
 - H. Hazard control procedures including ventilation and lockout/tagout procedures;
 - I. Properly filling out permits; and
 - J. Termination procedures.
2. The training program will be designed so that personnel involved in permit-required confined space entry will be able to act as authorized entrant, attendant, or entry supervisor. Records of training will be maintained on site.

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X. Space Evaluation:

1. Prior to entering a confined space the hazards of the space will be evaluated. Standard operating procedures for specific spaces will be developed.
2. As a minimum, the following steps will be followed during permit-required confined space entry activities:
 - A. Calibrate the air monitoring instrument prior to any atmospheric monitoring. The entry supervisor will calibrate the instrument. The calibration record will be placed on the entry permit.
 - B. Perform initial air monitoring from outside the space.
 - C. The appropriate instrument readings should be:
 1. Oxygen between 19.5 and 23.5 percent; and
 2. Combustible gases and vapors less than 10 percent of the LEL.
 - D. Other contaminants may need to monitor on a case-by-case basis. The above readings are considered acceptable entry conditions.
 - E. No entry is permitted in the space if the instrument readings are not within the above parameters. If the atmospheric concentrations of the above contaminants inside the space cannot be brought within the given parameters, then the site supervisor or his designee must be notified prior to attempting an entry.
 - F. In addition to atmospheric testing, the space should be isolated and all equipment locked and tagged out prior to entering the space. It is the duty of the entry supervisor to verify that this has been accomplished.
 - G. The entry supervisor will determine how often air monitoring must be performed once entry activities have been undertaken. The results

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and time of the measurements will be recorded on the entry permit.

XI. Permit System:

1. The confined space entry permit used by OMD will include the following information:
 - A. Permit-space to be entered;
 - B. Purpose of the entry;
 - C. Date and authorized duration of the permit;
 - D. Name of the current entrants, attendants and entry supervisor;
 - E. Hazards of the permit-space;
 - F. Space isolation procedures, including lockout/tagout;
 - G. Acceptable entry conditions;
 - H. Results of initial and periodic tests, including time and person;
 - I. Who is performing the tests;
 - J. Rescue and emergency procedures;
 - K. Communications procedures and equipment;
 - L. PPE, testing equipment, and rescue equipment; and
 - M. Other applicable information and additional permits (i.e., hot work).
3. All permit-required confined space entries will require a permit to be filled out prior to entering the space. These permits are valid for the duration of the job or one work shift, whichever is less. Work that carries over into a second work shift will require a new permit to be issued. Subsequent entry into a space that has had the permit canceled will also require a new permit.
4. The completed permit will be reviewed by the authorized entrants and attendants prior to entering

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the space. The completed permit will remain at the space, either posted at the entrance or with the attendant, for the duration of the entry.

5. When entry operations have been completed, or the work shift is ended, the entry supervisor will cancel the permit. Permits will also be canceled if a condition not allowed on the permit arises in or near the space.
6. Canceled permits will be maintained for at least one-year and used as part of the permit space program review.

XII. Alternate Entry Procedures for Permit-Spaces:

1. The hazards in some permit-spaces are limited to potential atmospheric hazards that can be controlled by continuous forced-air ventilation. These spaces include fully enclosed concrete headboxes. For these types of spaces, the following alternate procedures can be used for entry:
 - A. Prior to removing the entrance cover, eliminate any condition that may make removing the cover unsafe. Once open, barricade or guard the opening to protect people from falling into the space.
 - B. Perform air monitoring as described in the section on Space Evaluation to determine if acceptable entry conditions exist.
 - C. Use forced-air ventilation to control atmospheric hazards prior to employees entering the space. The forced-air ventilation will continue until all employees have left the space.
 - D. Note: In enclosed headboxes and other spaces where there is constant running water inducing air movement, utilizing natural ventilation is acceptable. However, air monitoring must still be done prior to employees entering the space, and the monitor should be brought into the space when employees are working to continuously monitor the air within the space.
 - E. Periodically test the atmosphere inside the space to assure no hazardous atmospheres exist.

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- F. If an atmospheric hazard is detected inside the space, all employees will immediately leave the space and the situation will be corrected before anybody reenters the space;
- G. Entry permits shall be completed when using these alternate entry procedures.
- H. Use of the alternate entry procedures does not require the use of attendants outside of the space, nor does it require an emergency rescue service to be immediately available. However, the use of attendants and rescue procedures is advisable.

XIII. Entry into No-Permit Confined Spaces:

1. Spaces such as crawl spaces under certain buildings are not expected to have atmospheric hazards since there is continuous water and air movement, and/or there is no decaying organic matter or other chemical use in the space. However, there may be physical hazards associated with these spaces such as high water flow or difficult entry or egress.
2. If all the hazards (physical and atmospheric) inside of a space can be eliminated without having to first enter the space, it can be classified as a non-permit-space and entered without using permit-space entry procedures. If ventilation must be used to control potential atmospheric hazards, the space cannot be classified as non-permit. At the minimum, the Alternate Entry Procedures must be used.
3. Multiple Employers, Contractors and Visitors
4. All non-OMD personnel entering confined spaces at OMD facilities will follow the requirements of the OMD confined space program. Exceptions will be made on a case-by-case basis if the non-OMD employer has a confined space entry program and that program has been reviewed and deemed satisfactory by OMD.
5. OMD site supervisors will inform visitors and contractors of the locations and hazards of the confined spaces at the site. In addition, the visitors will be informed of any control procedures in place to minimize or eliminate the hazards.
6. If multiple employees are working in or near the same confined space, their activities will be

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coordinated so that the actions of one employee will not pose a danger to others. Coordination of activities will also be done if visiting employees and OMD employees are working in or near the same confined space.

7. The means by which visitors and contractors will be informed of confined spaces at the facility and coordination of activities will be handled on a case-by-case basis. Possible methods include pre-entry meetings with all affected parties and written correspondence.
8. At the end of confined space entry activities, visiting employees will notify the OMD site supervisor that they have completed their work. The visiting employee will be debriefed as to the nature of the work and the presence of any hazards in the spaces.

A. Rescue Procedures:

1. Prior to any permit-space work (unless using the Alternate Entry Procedures described in that section), a site-specific rescue plan will be developed that addresses specific procedures to be followed. The rescue plan for the permit-space work will be integrated with the medical and fire emergency response plans for the site. All personnel involved with the entry will review the plan.
2. Equipment will be available at the entrance to the permit-space to allow attendants to make non-entry rescues. This equipment may include body harnesses and belts, lifelines, and retrieval devices. The choice of equipment will be dependent upon the space that is entered and will be listed on the permit. If vertical entries greater than five feet deep are made, a mechanical retrieval device, such as a tripod with a hand-powered lifting winch, will be used to facilitate non-entry rescue.
3. If outside emergency rescue service providers will be used, the site manager will evaluate these providers with respect

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to their ability to respond in a timely manner to a confined space emergency. Attachment D of this policy is a copy of a Rescue Provider Evaluation Form taken from the OR-OSHA regulation.

4. Outside emergency rescue providers must state that they are willing and able to perform rescues. These providers will be informed of the types of confined spaces they may encounter at the site and will be invited to the site to visit all confined spaces from which rescue may be required. Every effort will be made to allow the emergency rescue service providers to practice rescues at the site.

B. Confined Space Entry Program Review:

1. The confined space entry program shall be reviewed at least annually. Canceled permits will be utilized to facilitate review of the program. Revisions of the program will be performed to ensure employee safety and compliance with applicable regulations.
2. The program shall also be reviewed whenever deficiencies are suspected. Deficiencies may be suspected when employees note them or there is an accident or near-miss. The program shall be reviewed immediately with corrective actions taken immediately if required.

IX. Responsibilities:

1. Employees shall:
 - A. Not enter permit-required confined spaces unless authorized to do so; and
 - B. Follow all procedures for entering spaces.
2. Supervisors shall:
 - A. Implement the OMD confined space program at their facility;
 - B. Label all permit-required confined spaces;

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- C. Ensure personnel are trained on the OMD confined space program; and
 - D. Consult with contractors regarding confined space entry procedures.
3. The Safety and Health Manager shall:
- A. Assist AGI in developing specific confined space entry procedures;
 - B. Assist AGI in confined space entry training;
 - C. Assist AGI in annual review of this program; and
 - D. Provide resources to AGI for acquiring needed equipment.

X. Attachments:

- A. Confined Space Entry Evaluation Sheet
- B. Permit Required Decision Flow Chart
- C. Sample Permit
- D. Policy/Plan Acknowledgement Form


RAYMOND F. REES
Major General
The Adjutant General

CONFINED SPACE AND PRCS RECOGNITION CHECKLIST

PART I

- ___ 1. Is the space large enough so an employee can bodily enter and perform work?
- ___ 2. Does the space have limited or restricted means of entry and exit?
- ___ 3. Is the space not designed for continuous occupancy?

If the answer is yes to all items in Part I, continue to Part II. If the answer is no to any of the items in Part I, the space is not considered a confined space.

PART II

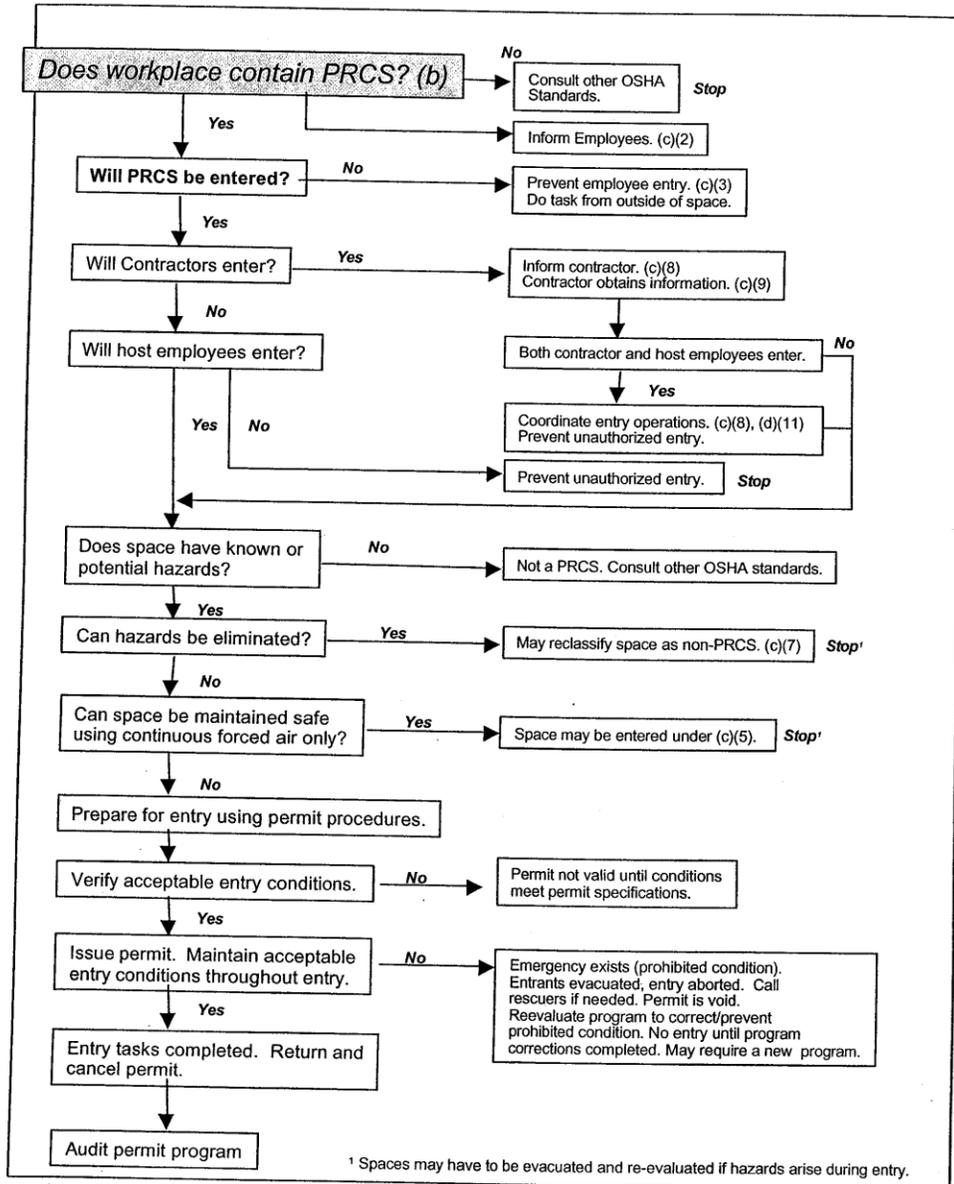
- ___ 1. Does the space contain or potentially contain a hazardous atmosphere?
- ___ 2. Does the space contain any chemicals or chemical residues?
- ___ 3. Does the space contain any flammable/combustible substances?
- ___ 4. Does the space contain or potentially contain any decomposing organic matter?
- ___ 5. Does the space have any pipes which bring chemicals into it?
- ___ 6. Does the space have any materials that can trap or potentially trap, engulf, or drown an entrant?
- ___ 7. Is vision obscured by dust at 5 feet or less?
- ___ 8. Does the space contain any mechanical equipment servicing the space?
- ___ 9. Does the space have converging walls, sloped floors or tapered floor to smaller cross-sections which could trap or asphyxiate an entrant?
- ___ 10. Does the tank or vessel contain rusted interior surfaces?
- ___ 11. Does the space contain thermal hazards (e.g. cold, hot)?
- ___ 12. Does the space contain excessive noise levels which could interfere with communication with an attendant?
- ___ 13. Does the space present any slip, trip, or fall hazards?
- ___ 14. Are there any operations conducted near the space opening which could present a hazard to the entrant?
- ___ 15. Are there any hazards from falling objects?

ATTACHMENT A

- ___ 16. Are there lines under pressure servicing the space?
- ___ 17. Are cleaning solvents or paints going to be used in the space?
- ___ 18. Is welding, cutting, brazing, riveting, scraping, or sanding going to be performed in the space?
- ___ 19. Is electrical equipment located in or required to be used in the space?
- ___ 20. Does the space have poor natural ventilation which would allow an atmospheric hazard to develop?
- ___ 21. Are there any corrosives which could irritate the eyes in the space?
- ___ 22. Are there any conditions which could prevent any entrant's self rescue from the space?
- ___ 23. Are there any substances used in the space which have acute hazards?
- ___ 24. Is mechanical ventilation needed to maintain a safe environment?
- ___ 25. Is air monitoring necessary to ensure the space is safe for entry due to a potential hazardous atmosphere?
- ___ 26. Will entry be made into a diked area where the dike is 5 feet or more in height?
- ___ 27. Are residues going to be scraped off the interior surfaces of the vessel?
- ___ 28. Are non-sparking tools required to remove residues?
- ___ 29. Does the space restrict mobility to the extent that it could trap an irritant?
- ___ 30. Is respiratory protection required because of a hazardous atmosphere?
- ___ 31. Does the space present a hazard other than those noted above which would make it a permit space?

If any other questions in PART II have been checked yes, the confined space is a Permit-Required Confined Space (PRCS). As such, entry into these spaces must be performed under the protection of your PRCS program. *Note: In some situations, alternative procedures or reclassifying to a non-PRCS may be possible in lieu of a full PRCS program.*

A quick reference to the Permit-Required Confined Space Standard



ATTACHMENT B



OREGON MILITARY DEPARTMENT
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD
ADJUTANT GENERAL PERSONNEL
1776 MILITIA WAY
P.O. BOX 14350
SALEM, OREGON 97309-5047

POLICY/PLAN ACKNOWLEDGMENT

CONFINED SPACE ENTRY PLAN
AGP POLICY 99.200.4 (Effective 2/1/09)

I acknowledge that I have read and understood AGP Policy/Plan 99.200.04 on Confined Space Entry.

I acknowledge that I will not enter permit-required confined spaces unless authorized to do so and follow all procedures for entering confined spaces as outlined in this policy.

I also acknowledge that entering a permit-required confined space without prior authorization could subject me to discipline, up to and including dismissal.

I will abide by this policy/plan and I realize that this signed statement will be placed in my personnel file.

Employee Name (Please print)

Division/Section

Employee Signature

Date