

CONFINED SPACE PROGRAM

UNIVERSITY OF WISCONSIN-GREEN BAY

I. Purpose

The purpose of this program is to establish specific procedures to protect UW-Green Bay and subcontractor employees from the hazards of entry into both non-permit and permit-required confined spaces. Procedures for confined space entry are based on the requirements of 29 CFR 1910.146.

UW-Green Bay's practice is to eliminate or control all hazards during confined space entry in order to render them non-permit spaces for the duration of entry

Requirements specified in this program will apply to all UW-Green Bay employees and contractors working under the direct supervision of UW-Green Bay.

Definitions

Confined Space: A space or work area containing all of the following characteristics:

- Is large enough and configured so that an employee can bodily enter the space or area and perform assigned task
- Has limited or restricted means for entry or exit; examples are tanks, silos, vats, degreasers, sewers, tunnels, hoppers, underground utility vaults, and pipelines
- 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 is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

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

- Flammable gas, vapor, or mist in excess of 10 percent of its lower explosive limit (LEL)
- Airborne combustible dust at a concentration that meets or exceeds its LEL (this condition is met if dust obscures vision at a distance of 5 feet or less)
- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent
- Atmospheric concentration of any substance that could result in employee exposure in excess of the substance's permissible exposure limit

- Any other atmospheric condition that is immediately dangerous to life or health (IDLH)

Non-permit Required Confined Space: A confined space that does not contain, or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Permit-Required Confined Space: Any space or work area that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere
- Contains a material that has the potential for engulfing an entrant
- Has an internal configuration that can trap or asphyxiate an entrant 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

II. Program Elements

A list of campus permit-required confined spaces is found in Appendix A. UW-Green Bay employees are not allowed to enter permit-required confined spaces unless:

- The permit space is evaluated and meets criteria for reclassification to a non-permit space for the duration of the entry

Or

- The permit space is evaluated and meets criteria allowing for use of alternate procedures specified in 29 CFR 1910.145 c(5)(ii). To meet the criteria the only hazard posed by the permit space is an actual or potential hazardous atmosphere and continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry

Outside contractors will be used if a permit space cannot be reclassified or entered using alternate procedures.

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

- The permit space poses no actual or potential atmospheric hazard which has been verified by using procedures in Appendix C "Air Sampling Procedures"
- All hazards within the space are eliminated without entry into the space

- Basis for determining that all hazards in the permit space have been eliminated is certified with completion “UWGB Confined Space Entry Assessment Form” found in Appendix B.

A space classified as a permit-required confined space may be entered using alternative procedures if:

- The only hazard posed by the permit space is an actual or potential hazardous atmosphere, and
- Continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry
- Data supporting use of alternative procedures is obtained without entry into the permit space
- Basis for determining permit space can be entered using alternative procedures is certified with completion of “UWGB Confined Space Entry Assessment Form” found in Appendix B.

III. Entry Procedures

The following procedures will be used whenever a campus employee enters a permit required confined space:

- All entrants and attendants must be trained on campus confined space entry policies.
- The UWGB Confined Space Entry Assessment Form will be completed prior to entry into a permit-required confined space
- All energy sources to the confined space will be locked out/tagged out: electrical, mechanical, steam, gas. (Follow UW-Green Bay Lockout/tagout procedures).
- Any conditions making it unsafe to remove an entrance cover will be eliminated before the cover is removed. Once entrance cover is removed, the opening will be guarded to prevent an accidental fall through the opening and to protect employees working in the space from foreign objects entering the space.
- Before entering the space, the internal atmosphere will be tested for the following potential contaminants:

Contaminant Type	Acceptable Range
Oxygen	19.5%-23.5%
Carbon Monoxide	Less than 35 ppm
Flammables	Less than 10% LEL
Hydrogen Sulfide	Less than 10 ppm

- All entrants will wear appropriate clothing and PPE as required for the task.
- Entrant and/or attendant will have phone communication readily available during entry to report any emergency that occurs. In case of emergency, call 911.
- Appropriate forced air ventilation will be used for those spaces requiring its use as per Section III.
- Air quality will be continuously monitored by attendant while entrant is in the confined space. If a hazardous atmosphere is detected at any time, all employees must leave the space immediately.
- An appropriate ladder must be used for safe entry/egress for vertical entries.

The campus steam tunnels are classified as non-permit confined space. The Power Plant supervisor will document semi-annual atmospheric testing of the steam tunnels to verify absence of any atmospheric hazards. The following procedures must be used when entering campus steam tunnels:

- All entrants must be trained on UW-Green Bay confined space entry practices.
- Supervisor will be notified before entry occurs.
- Air monitoring, mechanical ventilation and/or respiratory protection will be required when work involves use of hazardous chemicals.
- Entrants to the tunnel system will immediately evacuate the tunnel system via the closest exit any time they experience symptoms of possible exposure such as headache, dizziness, nausea, drowsiness and difficulty breathing.

In case of an emergency call 911. Provide operator with name, location and nature of emergency. Public Safety has provided Brown County emergency responders with a campus map and directions to all buildings.

The UWGB Confined Space Entry Assessment Form must be completed before entry into any campus permit space. Entry certification is valid for only one shift and may not be used for any future entries. The form serves as a permanent record of entry activity. Supervisors will maintain the form on file for one year.

Entrant will notify supervisor when entry is completed and return the entry form to the supervisor.

IV. Training

Confined space training shall be provided to all UW-Green Bay employees entering, attending or supervising entrance of campus permit required confined spaces on a periodic basis. Supervisors will ensure that all employees under his/her direction who enter a permit space have received the following training:

- Definition of a confined space and identity of permit spaces on the UW-Green Bay campus.
- Requirements of the OSHA Confined Space Standard (29 CFR. 1910.146) and UW-Green Bay's Confined Space Entry Program.
- Recognition, evaluation and control of chemical and physical hazards within a confined space.
- Use and limitations of atmospheric testing and PPE.
- Use of "UWGB Confined Space Entry Assessment Form".
- Emergency contact procedures.

V. Outside Contractors

When an outside contractor performs work that includes entry into University permit required confined spaces, the campus will do the following:

1. Inform contractor that the workplace contains permit spaces and that all entries into permit spaces must comply with 29 CFR 1910.146 – OSHA Permit-required Confined Spaces.
2. Provide information to the contractor about the elements and hazards of the space that make the space in question a permit space.
3. Apprise the contractor of any precautions or procedures that the campus has implemented for the protection of employees in or near permit spaces where the contractor personnel will be working.
4. Have the contractor inform the campus about any problems encountered during the entry once entry is complete.

An outside contractor will do the following whenever performing work requiring entry into a campus permit space:

- Comply with all applicable requirements I 29 CFR 1910.146 – OSHA Permit-required Confined Spaces.
- Obtain any available information regarding permit space hazards and entry operations from the campus.
- Inform campus of the permit space program the contractor will follow.
- Inform campus of any hazards confronted or created in permit spaces.

VI. Responsibilities

Safety Manager

- Update UW-Green Bay Confined Space Program as needed.
- Coordinate required training.
- Do regular program evaluation with assistance of supervisors/Director.

Supervisors

- Identify all employees who will enter campus permit spaces.
- Ensure all employees who enter campus permit spaces received required training.
- Ensure all employees who enter campus permit spaces complete UWGB Confined Space Entry Assessment Form. Files of completed forms are kept within and maintained by each department.
- Require and enforce additional entry procedures as needed
- Provide sufficient surveillance of the work area to ensure employee compliance with all program elements.
- Assist program administrator with regular program evaluations.

Employees covered by Program

- Attend training as required
- Follow all required program elements when entering a campus permit space.

Facilities Management

- Ensure outside contractors comply with program elements detailed in section VI.