

SUNY OSWEGO

ENVIRONMENTAL HEALTH AND SAFETY

CONFINED SPACE ENTRY PROGRAM

Procedure Number	Original Effective Date	Revision Number - Date
EHS-CSP-01	1994	01 – April 2016

1.0 Policy.....X

2.0 Responsibilities.....X

3.0 Definitions.....X

4.0 Identification and Evaluation of Confined Space.....X

5.0 Preventing Unauthorized Entry.....X

6.0 Personnel.....X

7.0 Entry Permit System.....X

8.0 Entry Procedure.....X

9.0 Alternative Procedures.....X

10.0 Reclassification of a Permit Space.....X

11.0 Emergencies.....X

12.0 Training.....X

13.0 Contractors.....X

14.0 Equipment and Maintenance.....X

15.0 AppendicesX

1.0 POLICY

It shall be the policy of SUNY Oswego to adhere to all regulatory statutes with regard to confined spaces. Confined spaces are, and have been by their nature, a source of injuries and fatalities to workers and rescuers. With proper planning and adherence to a confined space entry program, these hazards to employees can be minimized.

This Confined Space Entry Program is designed to provide safe procedures and practices for SUNY Oswego and contractor personnel for entering, exiting and working in confined spaces. This program has been developed, following the principles and guidelines required by OSHA 29 CFR 1910.146, Permit-required Confined Spaces, the guidelines recommended by ANSI Z117.1-1989, American National Standard, Safety Requirements for Confined Spaces and 29 CFR 1910.268 Telecommunications standard. Other applicable regulations contained in 29 CFR 1910 and 1926 will be followed.

This Confined Space Entry Program will be reviewed at least annually by the Occupational Safety and Training Coordinator. Any revisions made to this program will be incorporated into the program and distributed to the appropriate personnel.

All persons entering a confined space shall adhere to the conditions set forth in this program.

2.0 RESPONSIBILITIES

2.1 President

The College President is ultimately responsible for health and safety on campus. The President must ensure that adequate funds and resources are made available to comply with this Confined Space Entry Program. Also, the President must provide the authority for all procedures to be carried out.

2.2 Vice President for Finance and Budget

The VP for Finance and Budget must ensure that adequate funds are distributed to the appropriate budgets for the implementation and maintenance of this program.

2.3 Department Heads

Department Heads with operations under their supervision requiring confined space activities shall ensure that the procedures in this Confined Space Entry Program are followed and that provisions for safety equipment and employee training are made available.

2.4 Supervisors

Supervisors shall be responsible for ensuring their employees do not enter any confined space without following the appropriate procedures specified in this program. Supervisors shall also be responsible for pre-planning of confined space activities, gathering of appropriate safety equipment, ensuring that all affected employees are qualified, and coordinating confined space activities with outside contractors. Supervisors shall be responsible to ensure employees they assign to work in or near a confined space have been trained.

2.5 Employees

Employees are responsible for following the procedures of this Confined Space Entry Program, attending training sessions, and avoiding unauthorized entrance to any confined space identified in the Confined Space Entry Program.

2.6 Occupational Safety and Training Coordinator

The Occupational Safety and Training Coordinator is responsible for coordinating, reviewing and revising the Confined Space Entry Program as needed, evaluating confined spaces, recommending appropriate safe entry procedures and personal protective equipment, ensuring proper training, and the calibration of air monitoring equipment for atmospheric testing.

The program and cancelled permits will be reviewed at least annually. Changes and updates to the program may be made whenever necessary if circumstances arise that would warrant a change is needed to further protect the safety of SUNY Oswego staff.

2.7 Outside Contractor(s) – An updated standard for Confined Spaces in Construction has been published. Contractors shall be responsible for adhering to applicable confined space regulations found in 29 CFR 1926 Subpart AA or 29 CFR 1910.146. The 1926 regulations will apply for construction related entries and the 1910 regulations will apply for maintenance related entries.

If the work falls within the parameters of the 1910.146 Contractors shall be responsible to follow our program if they do not have a confined space policy of their own.

The Contractor will meet with the Occupational Safety and Training Coordinator to review:

- The Confined Space Program

- Discuss any hazards of entry likely to be present

- Training Records to ensure Contractors Employees have been trained

- Review Rescue Procedures/Plans

- Review Permit to be utilized if applicable

- Coordinating any confined space activities with appropriate SUNY Oswego personnel.

If the work falls within the parameters of 29 CFR 1926 **SUNY Oswego will be considered the Host Employer** and the Contractor will be responsible to follow all rules and regulations found in 29 CFR 1926 Subpart AA.

Host employer means the employer that owns or manages the property where the construction work is taking place.

Note to the definition of "Host employer". If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity the information specified in § 1926.1203(h)(1), OSHA will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, OSHA will treat the owner of the property as the host employer. In no case will there be more than one host employer. For example, SUNY Oswego transfers host employer would be when a project is being overseen by DASNY or SUCF.

Before entry operations begin, **SUNY Oswego (host employer)** will provide the following information, if it has it, to the **controlling contractor**:

The location of each known permit space;

The hazards or potential hazards in each space and/or the reason it is a permit space;

Any precautions that the host employer or any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.

Before entry operations begin, the **controlling contractor** will obtain the **host employer's** information about the permit space hazards and previous entry operations; and provide the following information to each entity entering a permit space and any other entity at the worksite whose activities could foreseeably result in a hazard in the permit space:

The information received from the host employer;

Any additional information the controlling contractor has about the hazards or potential hazards in each space or the reason it is a permit space

The precautions that the host employer, controlling contractor, or other entry employers implemented for the protection of employees in the permit spaces.

Before entry operations begin, each **entry employer will**:

Obtain all of the controlling contractors' information regarding permit space hazards and entry operations;

Inform the controlling contractor of the permit space program that the entry employer will follow, including any hazards likely to be confronted or created in each permit space.

The **controlling contractor and entry employer(s)** must coordinate entry operations when:

More than one entity performs permit space entry at the same time; or

Permit space entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed.

After entry operations:

The controlling contractor will debrief each entity that entered a permit space regarding the permit space program followed and any hazards confronted or created in the permit space(s) during entry operations;

The entry employer will inform the controlling contractor in a timely manner of the permit space program followed and of any hazards confronted or created in the permit space(s) during entry operations;

The controlling contractor will apprise the host employer of the information exchanged with the entry entities.

Unless a host employer or controlling contractor has or will have employees in a confined space, it is not required to enter any confined space to collect the information.

If there is no controlling contractor present at the worksite, the requirements for, and role of, controlling contractors will be fulfilled by the host employer or other employer who arranges to have employees of another employer perform work that involves permit space entry.

3.0 DEFINITIONS as per 29CFR1910.146 there will be some variation to definitions under 29CFR1926

Acceptable Entry Conditions: The conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into, and work within the space.

Attendant: A person who is assigned as standby to monitor a confined space process or operation and provide support or react as appropriate.

Authorized Entrant: An employee or contractor employee authorized by SUNY Oswego to enter a permit space.

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

Confined Space: An enclosed area having all of the following characteristics:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work.
2. Has limited or restricted means for enter or exit (i.e. tanks, boilers, pits, bins, sumps, sewers, manholes, etc.)
3. Is not designed for continuous human occupancy.

Double Block and Bleed: The closure of a line, duct, or pipe by closing and locking or tagging 2 inline valves and by opening and locking or tagging a drain or vent valve in the line between the 2 closed valves.

Engulfment: The surrounding, capturing, or both, of a person by divided particulate matter or liquid.

Entry: Ingress by persons into a confined space which occurs upon breaking the plane of the confined space portal with any body part; and all periods of time in which the confined space is occupied.

Entry Coordinator/Supervisor: The person responsible for determining if acceptable entry conditions exist for entry into a confined space, for authorizing entry and overseeing entry operations, and for terminating entry. This is equivalent to the OSHA term "Entry Supervisor."

Hazardous Atmosphere: An atmosphere that may be, or is injurious to occupants by reason of: oxygen deficiency, or enrichment; flammability or explosivity, or toxicity.

Hot Work: Work within a confined space that produces arcs, sparks, flames, heat, or other sources of ignition.

Immediately Dangerous to Life and Health (IDLH): Any condition that poses an immediate or delayed threat to life, or that would cause irreversible adverse health effect or that would interfere with an individual's ability to escape unaided from a permit space.

Inerting: The displacement of the atmosphere in a permit space by a noncombustible gas (such as Nitrogen) to such an extent that the resulting atmosphere is noncombustible.

CAUTION: This procedure produces an Immediately Dangerous to Life and Health oxygen-deficient atmosphere.

Isolation: The process in where a permit 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.

Non-Permit Confined Space (Non-Permit 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.

Oxygen Deficient Atmosphere: An atmosphere containing less than 19.5% oxygen by volume.

Oxygen Enriched Atmosphere: An atmosphere containing more than 23.5% oxygen by volume.

Permit-Required Confined Space (Permit Space): A confined space that has one or more of the following characteristics:

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

Permit System: The written procedure for preparing and issuing permits for entry and for returning the permit to service following termination of entry.

Prohibited Condition: Any condition in a permit space that is not allowed by the permit during the period when the entry is authorized.

Rescue Service: The personnel designated to rescue employee from permit spaces.

Retrieval System: The equipment (including a retrieval line, chest or full-body harness, wristlets if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Testing: The process by which the hazards that may confront entrant of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

4.0 IDENTIFICATION AND EVALUATION OF CONFINED SPACE

All confined spaces known to be on campus have been identified and are listed in Appendix A "Confined Space Inventory." Each space has also been evaluated for existing and potential physical and health hazards, control measures necessary for safe entry, safety equipment needed, and procedures necessary prior to entry. Each space is classified as either a Permit Space or a Non-Permit Space. These evaluations are available at the EHS office and may be viewed upon request, it is strongly suggested that they be viewed when the Occupational Safety and Training Coordinator is available to answer any questions that may arise.

Prior to any work involving a confined space, a Job Hazard Analysis will be conducted (or reviewed if one already exists). It will be reviewed by all interested parties including but not limited to the Entry Supervisor, Entrant, Attendant and any Rescue personnel. This will help to ensure that appropriate actions are taken to eliminate hazards, appropriate equipment is assembled and is in good working order, and that each person is familiar with the potential hazards and proper actions to take in the event of an emergency. The Confined Space Entry/Evaluation

Procedure sheets that were used to classify the spaces can be used as a base starting point, these evaluations are located in EHS. The Occupational Safety and Training Coordinator will be contacted whenever any questions arise from this review or, if a particular activity to be performed in the space poses a hazard not covered in the evaluation sheets.

Any employee identifying an additional space they believe meets the criteria of a confined space must not enter the suspected confined space and must immediately notify their supervisor. The supervisor will then notify the Environmental Health and Safety Department for evaluation.

5.0 PREVENTING UNAUTHORIZED ENTRY

No individual will be permitted to enter a confined space unless specifically authorized to do so in accordance with this Confined Space Entry Program. Entrance into a **Permit Space** will only be allowed after the Entry Coordinator has completed, signed and posted a Confined Space Entry Permit and procedures in Sections 7.0 and 8.0 are followed or, the Permit Space is reclassified according to section 10.0 or, alternative procedures are used in accordance with section 9.0.

Any unauthorized entry into a confined space shall be investigated by the appropriate supervisor to determine corrective actions necessary to prevent future unauthorized entries.

Permit spaces that meet the definition of a Permit Required Confined Space provided in 29CFR1910.146 have been posted with signs reading "**DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER**" or of other similar language and/or potentially affected employees have been advised of their existence. In addition locks, barriers and permanent structures will be used as necessary to prevent unauthorized entry.

6.0 PERSONNEL

6.1 Authorized Entrant

The authorized Entrant is the individual who is authorized by the College to enter a permit space. The Authorized Entrant must:

- A. Know the hazards that may be faced during entry, including the mode, signs, or symptoms, and consequences of any exposure.
- B. Properly use equipment associated with the entry (e.g. gas monitor and protective equipment).
- C. Communicate with the Attendant as necessary to enable the Attendant to monitor Entrant status and to enable the Attendant to alert the Entrant(s) of the need to evacuate.
- D. Alert the Attendant whenever:
 - 1. The Entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - 2. The Entrant detects a prohibited condition.
- E. Exit from the permit space as quickly as possible whenever:
 - 1. An order to evacuate is given by the Attendant or Entry Supervisor.

2. The Entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
3. The Entrant detects a prohibited condition.
4. An evacuation alarm is activated.

6.2 Attendant

The Attendant is the individual stationed outside the permit space who monitors the Authorized Entrant(s) and who perform all Attendant's duties. The attendant must:

- A. Know the hazards that may be faced during entry, including the mode, signs of symptoms, and consequences of the exposure.
- B. Be aware of possible behavioral effects of hazard exposure in Authorized Entrant(s).
- C. Continuously maintain an accurate count of Authorized Entrant(s) in the permit space.
- D. Remain outside the permit space during entry operations until relieved by another Attendant; under no circumstances is the Attendant to enter the space or leave the space unattended with entrant inside.
- E. Communicate with Authorized Entrant(s) as necessary to monitor Entrant status and to alert Entrant(s) of the need to evacuate the space in an emergency.
- F. Monitor activities inside and outside the space to determine if it is safe for Entrant(s) to remain in the space and orders the authorized Entrant(s) to evacuate the permit space immediately if the Attendant:
 1. Detects a prohibited condition.
 2. Detects the behavioral effect of hazard exposure in an Authorized Entrant.
 3. Detects a situation outside the space that could endanger the Authorized Entrant(s).
 4. Cannot effectively and safely perform his duties.
- G. Summon rescue and other emergency services as soon as the Attendant determines that Authorized Entrant(s) may need assistance.
- H. Take the following actions when unauthorized persons approach or enter a permit space while entry is underway: warn the unauthorized persons that they must stay away from the permit space; advise the unauthorized persons that they must exit immediately if they have entered the permit space; inform the Authorized Entrant(s) and the Entry Supervisor if unauthorized persons have entered the permit space.
- I. Perform non-entry rescues if necessary.
- J. Performs no duties that might interfere with the Attendant's primary duty to monitor and protect the Authorized Entrant(s).

6.3 Entry Supervisor

The Entry Supervisor is the person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for

terminating entry as required by this section. (An Entry Supervisor also may serve as an Attendant or as an Authorized Entrant, as long as that person is trained and equipped as required by this section for each role he or she fills). The Entry Supervisor must:

- A. Inform the Environmental Health and Safety Department when an entry is going to take place.
- B. Know the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of the exposure.
- C. Perform initial and periodic air sampling from the exterior of the space, and ensure at least one entrant is wearing an air monitor at all times.
- D. Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin. If Alternative Procedures or Reclassification is used for entry, all procedures are followed.
- E. Terminate the entry and cancel the permit whenever a condition that is not allowed under the entry permit arises in or near the permit space.
- F. Verify that the means for summoning rescue services is operable.
- G. Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations. Summon University Police if unauthorized individuals refuse to leave.

7.0 ENTRY PERMIT SYSTEM

SUNY Oswego requires an entry permit to be completed for all confined space entries including spaces that are not classified by definition as a Permit Required Confined Space, as well as spaces that have been reclassified by the removal/elimination of hazards.

Prior to entry into a confined space, the Entry Supervisor identified on the permit shall sign the entry permit to authorize entry. In cases where it is necessary for multiple entries per shift into the same space the Entry Supervisor will review, update and initial the updated permit prior to each entry.

The completed permit shall be made available at the time of entry to all Authorized Entrants, by posting the permit at the entry portal or by any other equally effective means; so that the Entrant(s) can confirm that pre-entry preparations have been completed.

The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit. If the job last for more than one work shift a new permit will be issued. The permit is valid for one continuous entry only. Therefore, after any extended breaks such as lunch pre-entry procedures must be repeated and the permit reissued.

The permit is valid for one job and one space only and will expire at the end of the work shift. If multiple entries are needed such as the job is interrupted by break periods, the existing permit will be reviewed and updated to include any changes in the conditions, new air monitoring data and any additional information as needed. The Entry Supervisor will note the time of the re-evaluation and initial the permit.

The Entry Supervisor shall terminate and cancel the entry permit when:

- (i) The entry operations covered by the entry permit have been completed.
- (ii) A condition that is not allowed under the entry permit arises in or near the permit space.

The canceled permit will be copied and distributed, within 24 hours, as follows:

- (i) Original to Environmental Health and Safety.
- (ii) Copy to the Supervisor of the Entry Supervisor.

These copies will be retained for at least one year to facilitate the annual review of the permit-required confined space program.

8.0 ENTRY PROCEDURE

8.1 Pre-Planning

Notification of planned entry will be given to the Environmental Health and Safety Department.

Prior to entering a Permit Required Confined Space that cannot be reclassified by the removal of hazards, and the use of Non-Entry Rescue Equipment is infeasible the Entry Supervisor/Entry Supervisor shall ensure that rescue personnel are available. SUNY Oswego Physical Plant Director will choose contracted rescue services based on the work required to be performed in the space as well as the availability of rescue team.

The Entry Supervisor will make sure that all necessary equipment is assembled, inspected and in good working condition. Also, the Entry Supervisor must insure that all personnel to be associated with the permit space entry are trained and qualified for their particular roll in the entry.

8.2 Permit

The Entry Supervisor should initiate the permit.
A permit is still required for reclassified spaces.

8.3 Personnel

Each permit space entry must have at least one of each:

- Entry Supervisor
- Attendant
- Authorized Entrant

The Entry Supervisor may also be the Attendant or an Authorized Entrant. Personnel must be identified on the permit. An Attendant must be on duty whenever anyone is in the permit space. All individuals involved in a confined space entry must have completed adequate training to function in his/her capacity.

8.4 Surveillance

The area surrounding the space will be surveyed to avoid hazards such as drifting vapors from tanks or other sources of hazardous materials, vehicle exhaust, inclement weather, or traffic.

8.5 Hazard Identification and Control

Potential hazards within and outside the confined space must be identified and recorded on the permit. Prior to entry all recognized hazards must be abated. Such information must be recorded on the permit.

Whenever practical, the space should be isolated. Isolated means the space is 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; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages. When the space is not isolated prior to entry, the Entry Supervisor must make note of the non-abated hazards on the entry permit.

Hot work is not permitted in any confined space (permit or non-permit) without the consent of the SUNY Oswego Fire Marshal or the Occupational Safety and Training Coordinator if the Fire Marshal is unavailable. In such instances the SUNY Oswego Hot Work Program/Procedure will be followed. A copy of the Hot Work Permit will be located at the entry site at all times and will be turned in with the Entry Permit. Under no circumstances will the Entry Supervisor allow Hot Work to be conducted without a Hot Work Permit issued by the appropriate EHS staff. In the event of an emergency the Fire Marshal or the Occupational Safety and Training Coordinator shall be contacted by phone and the permit will be filled out and sent via email that indicates permission has been authorized.

8.6 Space Ventilation

When mechanical ventilation systems are used, they will be set at 100% outside air.

When possible, additional manholes or openings will be opened to increase air circulation. Portable blowers may be needed to augment natural circulation.

If initial air monitoring readings do not show acceptable conditions, continue ventilation and repeat testing. Entry will not begin until testing has demonstrated that the hazardous atmosphere has been eliminated. If atmospheric testing continues to show unacceptable conditions the Entry Supervisor must notify the Occupational Safety and Training Coordinator of the Director of the Physical Plant or designee.

8.7 Testing

8.7.1 General

Appendix D of this program contains instructions for using the confined space monitors available at the campus. Testing must be made according to these instructions.

The confined space atmosphere shall be tested to determine whether dangerous air contaminants and/or oxygen deficiency exists with a direct reading gas monitor.

Testing shall be performed by the Entry Supervisor who has been trained in the use of the gas monitor(s) to be used. Initial monitoring of the space will be conducted using remote sampling from the exterior of the space. Testing should be conducted at several levels to test for stratified hazardous atmospheres, a minimum of 3 levels will be tested to include a sample from the lowest level of the space, the middle of the space and the top of the space. In spaces that are greater than 8', samples will be taken at least every 4'. Upon space clearance for entry the space will be continually monitored. The Entry Supervisor will ensure that at least one entrant will wear a monitor in the space. Periodic monitoring will take place from the exterior of the space and results will be documented on the permit at least every hour of an entry.

8.7.2 Acceptable Conditions

The minimum acceptable atmospheric conditions for entry are:

- Oxygen above 19.5% and below 23.5%
- Flammability less than 10% of the gasses lower explosive limit (LEL)
- Hydrogen Sulfide below 10 ppm
- Carbon Monoxide less than 35 ppm

Testing for additional contaminants may be required to prevent entry into a hazardous atmosphere. The Entry Supervisor must contact his/her supervisor and/or the Occupational Safety and Training Coordinator if he/she feels there is any chance of exposure to other hazardous chemicals. Acceptable entry conditions for other identified hazardous substances will be less than 1/2 of the identified substances permissible exposure limit, threshold limit value or other recognized exposure limit.

Testing results and the monitor information must be recorded on the entry permit.

Continuous gas monitoring in the vicinity of the Entrants shall be performed during all confined space operations.

When entry is proposed into a space which cannot meet the minimum atmospheric conditions, Entry must be authorized by the Occupational Safety and Training Coordinator or designee.

8.8 Lifeline, Harness and Tripod

To facilitate non-entry rescue, a retrieval system or method shall be used whenever an Authorized Entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the Entrant. A confined space rescue team needs to be in place before the latter is considered an option. A tripod is not required when the vertical distance into the space is less than five feet.

Each Authorized Entrant shall use a full body harness, with a retrieval line attached to the Entrant and to the tripod (if tripod is not used, the free end of the life line will be secured to a stationary object). The tripod will be arranged so that rescue can begin as soon as the Attendant becomes aware that rescue is necessary.

8.9 Entry

The entry is to be made according to all conditions of the permit.

The Entry Supervisor must sign the permit allowing entry into the space.

The entry must be discontinued and the space evacuated if the conditions vary from those listed as acceptable.

Entry is permitted only for the duration of the permit.

Minimally acceptable conditions:

1. Minimization of physical hazards including electrical, hydraulic, steam, and mechanical hazards.
2. Air quality must meet conditions listed on the permit.

Hot work and/or use of hazardous materials (e.g. solvents, paints, cleaners) is not permitted unless authorized by the Occupational Safety and Training Coordinator. These activities may create hazards in a normally non-hazardous confined space.

8.10 Cancellation of Permit/Recordkeeping

Upon completion of the job, change of conditions which result in an unexpected evacuation of the permit space, emergency evacuations, shift change, otherwise discontinuity of the job, the Entry Supervisor must cancel the permit. Copies are to be distributed per section 7.0.

9.0 ALTERNATIVE PROCEDURES

The OSHA regulations allow permit spaces which have, as their only hazard, an actual or potential hazardous atmosphere to use alternative procedures for entry. Although these alternative procedures do not require the implementation of a full permit required confined space program, SUNY Oswego will still require a permit to be completed for such entries. Refer to the Confined Space Inventory in Appendix A for permit spaces which currently qualify for alternative procedures or for spaces that are eligible for re-classification as a non-permit space through other means such as deenergization.

Entry using Alternative Procedures can take place after the following procedures have been followed:

1. Conditions such as high temperature or high pressure which would make it unsafe to remove an entrance cover must be eliminated before the cover is removed.
2. Openings to the space must be guarded to protect employees from falling into the space, to protect employees in the space from object entering the space, and from the hazards of vehicle traffic. If the opening to the space is situated so that employees and objects cannot fall into the space, no additional guarding is necessary.
3. The internal atmosphere of the space must be tested with a calibrated, direct-reading instrument before any employee enters the space. The sequence for testing must be: 1, Oxygen content, 2, Flammable gases and vapors, 3, Potential toxic air contaminants.
4. If a hazardous atmosphere exists, employees must be prohibited from entry.
5. Forced air ventilation has eliminated any hazardous atmosphere.
6. The atmosphere in the space is monitored continuously based on initial readings.
7. Employees must exit the space immediately if a hazardous atmosphere is detected. The space must then be evaluated to determine the cause for the hazardous atmosphere and corrective measures implemented.
8. The Entry Supervisor and the Occupational Safety and Training Coordinator or a designee appointed by the Occupational Safety and Training Coordinator verifies that the space is safe for entry.
9. A Permit will still be completed and Non-Entry Rescue equipment will be used.

10.0 RECLASSIFICATION OF A PERMIT SPACE

A permit-space may be reclassified as a non-permit confined space if there are no potential atmospheric hazards and if all other hazards within the space are eliminated without entry into the space. The reclassification is valid as long as the non-atmospheric hazards remain eliminated.

Written certification by or verified by the Occupational Safety and Training Coordinator is required to reclassify a permit required confined space that has not been previously reclassified by the Environmental Health and Safety Department.

11.0 EMERGENCIES

11.1 Self Initiated Rescue

Emergency exit may be self initiated by the Entrants or ordered by the Attendant.

A self initiated evacuation is initiated when:

1. An automatic alarm is activated.
2. The Entrant(s) perceives that they are in danger.
3. The Entrant(s) identifies a hazard not accounted for on the permit.
4. A condition develops which is not in compliance with the permit.

The Attendant will initiate an evacuation whenever the Attendant observes:

1. A condition which is not allowed in the entry permit.
2. Behavioral effects of the hazard exposure.
3. A situation outside the space which could endanger Entrants.
4. An uncontrolled hazard within the permit space.

11.2 Emergency Rescue Assistance

Upon evaluation of the confined spaces located on our campus and the maintenance work performed in such spaces SUNY Oswego has chosen to use non-entry rescue via the use of tripod systems. This decision was based on several years of atmospheric testing with no hazardous atmospheres documented* by SUNY Oswego employees as well as the availability to lock out hazardous energy in the spaces prior to entry. As reflected in our data, the only foreseeable emergency in a space if this program is followed is that of a medical nature and not one that is due to hazardous conditions in the space.

* On July 18, 2013 a review of air monitoring data from 2002 to present was conducted – there was nothing of concern noted in the data to suggest the presence of atmospheric hazards. The information is from a spread sheet that was created through the use of information documented on confined space entry permits. For the time period from 2006 to present Oxygen levels for confined space entry by SUNY Oswego Staff ranged from 19.8 to 20.9% with 0% Carbon Monoxide, 0% Lower Exposure Level and 0% Hydrogen Sulfide these levels are consistent with what can be expected in normal breathing air. Although not required for

ventilation of atmospheric hazards (alternative procedure) SUNY Oswego Staff occasionally use a coppus blower to provide air movement in the spaces to increase their comfort level.

We do however recognize that there may be rare instances when the use of a non-entry retrieval system is not practical, such as the entry into a horizontal space. In these instances a full evaluation of the space will take place to see if the space can be re-classified. In the event a re-classification is not an option a Confined Space Rescue Team will be contracted prior to entry into the space.

In cases of emergency exit in which rescue assistance is needed, the Attendant will immediately radio University Police to notify the local fire department and request to respond in an emergency fashion, providing the following information:

- Your name
- Nature of the Confined space emergency – such as a medical issue.
- Location
- Number of people involved
- Assessment of victim condition

Emergency entry into a confined space for rescue due to issues in the space itself is limited to the contracted Confined Space Rescue Team. For medical related emergencies such as heat exhaustion, slips resulting in strains or sprains – Non-entry rescue will be used to remove the entrant from the space and University Police will be notified so that medical assistance can be dispatched.

The Attendant should attempt non-entry retrieval if possible while waiting for the emergency responders. (Exception: If the worker is disabled due to falling or impact, he/she shall not be removed from the confined space unless there is immediate danger to his/her life.)

12.0 TRAINING

All employees whose work is regulated by this Confined Space Entry Program will be trained to reach an understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this section.

Training shall be provided to each affected employee:

1. Before the employee is first assigned duties under this section.
2. Before there is a change in assigned duties.
3. Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained.
4. Whenever there is a reason to believe there are deviations from the permit space entry procedures or inadequacies in the employee's knowledge or use of these procedures.

The training shall establish employee proficiency in the duties required by this section and shall introduce new or revised procedures, as necessary.

Training will be coordinated by Environmental Health and Safety and repeated as needed or upon request.

A certification (Record) of training will be maintained by Environmental Health and Safety. The certification (training record) shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification (record) shall be available for inspection by employees and their authorized representatives.

13.0 CONTRACTORS

When a contractor is employed to perform work that involves entry into a confined space the Director of the Physical Plant or designee will:

1. Determine whether the work falls under the General Industry Standards – 29 CFR 1910 or the Construction Standards – 29 CFR 1926.
2. Ensure that the Contractors Employees have been trained in Confined Space Entry, ask for documentation of the training, and ask to view the Contractors Safety Policy.
3. If the work will fall under the General Industry Standard they will inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of 29 CFR 1910.146. In the event that the Contractor does not have a Permit Required Confined Space Program they will need to follow SUNY Oswego's Program.
4. Apprise the contractor of the elements, including the hazard identified and the College's experience with the space, that make the space in question a permit space.
5. Apprise the contractor of any precautions or procedures that the College has implemented for the protection of employees in or near permit spaces where contractor personnel will be working.
6. Coordinate entry operations with the contractor, when both College personnel and contractor personnel will be working in or near permit spaces.
7. Debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in permit spaces during entry operations.

In addition to complying with the permit space requirements that apply to all employers, each contractor who is retained to perform permit space entry operations shall:

1. Obtain any available information regarding permit space hazards and entry operations from the college.
2. Coordinate entry operations with the host employer, when both host employer personnel and contractor personnel will be working in or near permit spaces.
3. Inform the College of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation.

14.0 EQUIPMENT USE AND MAINTENANCE

All equipment needed for safe entry, work and exit of confined spaces will be provided and maintained by SUNY Oswego. This equipment may include:

Equipment	Location
Atmospheric monitoring and testing equipment (air monitors)	CHP
Ventilation equipment	CHP
Communications equipment-individual radios	Shop issued
Personal protective equipment	Shop issued
Appropriate lighting	Shop issued
Barriers and shields to protect entrants and exclude bystanders	Grounds Department Plumbing Shop if trench box is needed
Ladders	Shop issued
Rescue and emergency equipment-tripod system	CHP

Each piece of equipment stored in CHP must be signed out by the appropriate Entry Supervisor and inspected prior to use. The Entry Supervisor must ensure that employees are trained on the proper use of the equipment. Additionally, air monitoring instrumentation must be recently calibrated and zeroed prior to use. The meters will indicate the number of days until the monitor needs to be recalibrated. The Occupational Safety and Training Coordinator will calibrate the meters at least every 180 days.