

UNIVERSITY OF WISCONSIN-STEVENSON POINT

CONFINED SPACE ENTRY PROGRAM



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1.0 PURPOSE

The purpose of this written confined space entry (CSE) program is to provide requirements for practices and procedures to protect the health and safety of employees who enter confined spaces and/or are assigned to serve as attendants, supervisors, or rescue personnel at UW-Stevens Point for permit-required confined space entry. This program is also intended to ensure compliance with the Department of Safety and Professional Services, chapter 32 of the Wisconsin Administrative Code relating to confined spaces and OSHA's 29 CFR 1910.146.

2.0 AUTHORITY & REFERENCE

The state of Wisconsin, Department of Safety and Professional Services, SPS 332.28 - 332.29.

Occupational Safety and Health Administration (OSHA) Permit-Required Confined Spaces (PRCS) [29 CFR 1910.146](#).

The above governmental standards are the authority and will be referenced when procedures or decisions are in question.

3.0 APPLICATION

Scope and application. This policy contains requirements for practices and procedures to protect employees from the hazards of entry into confined spaces and permit-required confined spaces.

This program applies to

- 1) All employees, who are required to enter a permit-required confined space;
- 2) All employees assigned to serve as attendants and/or provide assistance during a PRCS emergency rescue; and
- 3) Employees who serve as Entry Supervisors and/or Entry Program Administrators;
- 4) Department directors, managers, and supervisors, who have affected employees under this policy and/or contractors working within the scope of this policy; and
- 5) All employees entering non-permit confined spaces (see applicable sections).

4.0 DEFINITIONS

- A. **"Acceptable entry conditions"** means 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.
- B. **"Attendant"** means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant duties assigned in the employer's permit space program.
- C. **"Authorized entrant"** means an employee who is authorized by the employer to enter a permit space.

- D. **"Blanking or blinding"** means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a 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.
- E. **"Confined space"** means a space that:
- 1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
 - 2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
 - 3) Is not designed for continuous employee occupancy.
- F. **"Double block and bleed"** means 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.
- G. **"Emergency"** means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.
- H. **"Engulfment"** means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated 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.
- I. **"Entry"** means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.
- J. **"Entry permit (permit)"** means the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in paragraph (f) of this section.
- K. **"Entry supervisor"** means the person (such as the employer, foreman, or crew chief) 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.
- NOTE:** 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. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.
- L. **"Hazardous atmosphere"** means 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 space), injury, or acute illness from one or more of the following causes:

- 1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
 - 2) 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 5 feet (1.52 m) or less.
 - 3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
 - 4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this Part and which could result in employee exposure in excess of its dose or permissible exposure limit;
NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, or impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.
 - 5) Any other atmospheric condition that is immediately dangerous to life or health.
NOTE: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communication Standard, section 1910.1200 of this Part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.
- M. **"Hot work permit"** means the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.
- N. **"Immediately dangerous to life or health (IDLH)"** means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit 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 12-72 hours after exposure. The victim "feels normal" from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.
- O. **"Inerting"** means 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.
NOTE: This procedure produces an IDLH oxygen-deficient atmosphere.
- P. **"Isolation"** means the process by which a permit space is removed from service and completely protected against the release of energy and material into 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.
- Q. **"Line breaking"** means 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.

- R. **"Non-permit confined space"** means 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.
- S. **"Oxygen deficient atmosphere"** means an atmosphere containing less than 19.5 percent oxygen by volume.
- T. **"Oxygen enriched atmosphere"** means an atmosphere containing more than 23.5 percent oxygen by volume.
- U. **"Permit-required confined space (permit space)"** means a confined space that has one or more of the following characteristics:
- 1) Contains or has a 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; or
 - 4) Contains any other recognized serious safety or health hazard.
- V. **"Permit-required confined space program (permit space program)"** means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.
- W. **"Permit system"** means the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.
- X. **"Prohibited condition"** means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.
- Y. **"Rescue service"** means the personnel designated to rescue employees from permit spaces.
- Z. **"Retrieval system"** means 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.
- AA. **"Testing"** means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.
- NOTE:** Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

5.0 RESPONSIBILITIES FOR COMPLIANCE

5.1 CONFINED SPACE ENTRY PROGRAM ADMINISTRATOR

The Confined Space Entry Program Administrator for UW-Stevens Point is the UW- Stevens Point Environmental, Health, and Safety (EHS) Officer.

The responsibilities of this individual shall include assisting departments with:

1. Conducting and coordinating hazard assessments with respective departments.
2. Developing and implementing a system for the preparation, issuance, use, and cancellation of entry permits.
3. Developing and implementing procedures (such as closing off a permit space and canceling the permit) necessary for concluding the entry after entry operations have been completed.
4. Determining the classification (permit-required or non-permit space) and location of each confined space with respective departments.
5. Coordinating the posting of appropriate danger/caution signs by each confined space with respective departments.
6. Supervising the selection and use of respirators in compliance with the UW-Stevens Point Respiratory Protection Program.
7. Conducting and/or coordinating supervisory and employee CSE training (including attendants) and maintaining all training records.
8. Conducting an annual evaluation of the overall program to determine its continued effectiveness and make necessary revisions to the program and appropriate updates to those affected.
9. Development of specific permit-required confined space entry procedures.

5.2 MANAGERS AND SUPERVISORS

Managers and Supervisors involved in confined space entry are responsible for:

1. Actively supporting the CSE Program and providing funding to purchase equipment when needed.
2. Ensuring all assigned personnel are knowledgeable and trained in all aspects of the CSE Program
3. Ensuring permit-required confined space procedures are developed for spaces involved in their operations or units.
4. Working with CSE Program Administrator as needed to ensure all aspects of the policy are completed.
5. Ensuring they and their employees comply with all elements of the CSE Program.
6. Demonstrating that the only hazard posed by the permit space is an actual or potentially hazardous atmosphere.
7. Demonstrating that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry.
8. Developing monitoring and inspection data to provide safe entry. And these data shall be available to each employee who enters the permit space.
9. Ensuring appropriate PPE and equipment are properly utilized and maintained.
10. Ensuring outside contractors that they are responsible for following all CSE Program requirements.
11. Update procedures and policy as needed with CSE Program Administrator.

5.3 ENTRY SUPERVISOR

The Entry Supervisor is responsible for:

1. Ensuring that all procedures are followed.
2. Providing confined space entry personnel with a copy of the most current CSE Program, specific procedures, and any recent changes.
3. Knowing the hazards that may be encountered during entry and informing the entrants about the hazards, including information on the mode, signs, or symptoms and consequences of exposure.
4. Verifying, 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.
5. Verifying that the proper atmospheric tests have been conducted and that all procedures and equipment, specified by the permit, are in place before signing the permit and allowing entry to begin.
6. Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.
7. Ensuring that any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed.
8. Ensuring that when entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.
9. Testing the internal atmosphere before an employee enters the space with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space, or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing.
10. Periodically testing the atmosphere within the space as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the space, or that employee's authorized representative, shall be provided with an opportunity to observe the periodic testing.
11. Assuring that the permit is completed properly prior to each entry.
12. Coordinating with the Stevens Point Fire Department (or equivalent agency) and verifying that rescue or other emergency personnel are available before permit entry, ensuring that the means for summoning them are operable in the event that an emergency occurs, and suspending the entry when the SPFD personnel become unavailable. Entry may resume after the SPFD rescue personnel are again available.
13. Terminating the entry and canceling the permit whenever required and notifying the SPFD when the entry has been terminated.
14. Removing unauthorized individuals who have entered or who attempt to enter any permit space.
15. Determining, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, and that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.
16. Maintaining completed entry permits and equipment calibration records.

17. Providing employees the opportunity to observe the atmospheric testing of the permit space.
18. Work with and update procedures and policy as needed with CSE Program Administrator.

NOTE: The Entry Supervisor may also serve as an attendant or as an authorized entrant providing that person is properly trained and equipped. The duties of the Entry Supervisor may also be passed from one individual to another authorized individual during the course of an entry operation.

5.4 AUTHORIZED ENTRANTS

All authorized entrants are responsible for:

1. Knowing and recognizing the hazards that may be faced during entry including information on the mode, signs or symptoms, and consequences of exposure.
2. Properly using and maintaining the PPE and other equipment required for entry.
3. Communicating with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space, if required.
4. Being aware that the SPFD is available for rescue before entry.
5. Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.
6. Alerting the attendant when hazardous conditions, dangerous situations, prohibited conditions, warning signs, or symptoms of exposure are detected, recognized, identified, or suspected.
7. Exiting the confined space immediately whenever:
 - a. ordered to do so by other Entrants, the Attendant, or the Entry Supervisor.
 - b. warning signs or symptom of exposure are identified or recognized,
 - c. prohibited conditions are detected,
 - d. an evacuation alarm or command is activated.
8. Complying with all other aspects of the CSE program

5.5 ATTENDANTS

All authorized attendants are responsible for:

1. Knowing the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
2. Being aware of coordination with the SPFD rescue services and availability of rescue personnel.
3. Knowing the possible behavioral effects of hazard exposure in the authorized entrants.
4. Continuously maintaining an accurate count of authorized entrants in the permit space and ensuring that the means used to identify the authorized entrants accurately identifies who is in the space.
5. Remaining outside the confined space during entry operations until relieved by another attendant.
6. Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

7. Communicating with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the permit space.
8. Monitoring activities inside and outside the permit space to determine if it is safe for authorized entrants to remain in the space and order the authorized entrants to evacuate the space immediately under any of the following conditions:
 - a. If the attendant detects a prohibited condition.
 - b. If a hazardous atmosphere is detected during entry immediately leave the space. Then, the space shall be evaluated to determine how the hazardous atmosphere developed and measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.
 - c. If the attendant detects a behavioral effect of the hazard exposure in an authorized entrant.
 - d. If the attendant detects a situation outside the confined space that could endanger the authorized entrants; or
 - e. If the attendant cannot effectively and safely perform all the duties required.
9. Summoning rescue and other emergency services as soon as the attendant determines that entrants may need assistance to escape from the permit space hazards.
10. Taking the following actions when an unauthorized person(s) approach or enter a confined space while entry is underway:
 - a. Warn the unauthorized person(s) that they must stay away from the permit space.
 - b. Advise the unauthorized person(s) that they must exit immediately if they have entered the permit space.
 - c. Inform the authorized entrants and the entry supervisor if an unauthorized person(s) (have) entered the permit space.
11. Performing non-entry rescues as specified in Section 10.2.
12. Performing no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

6.0 EVALUATION AND IDENTIFICATION

6.1 CONFINED SPACE MAJOR CATEGORIES

Based on the definitions above and other considerations, confined spaces will be divided into four categories at UW-Stevens Point: (1) non-permit spaces, (2) permit-required spaces, (3) permit-required spaces that can be reclassified to non-permit spaces, and (4) confined spaces that never will be entered.

1. **“Non-Permit Spaces”**
Non-permit spaces are confined spaces that do not meet the definition of a permit space.
2. **“Permit-Required Confined Spaces”**
Permit-required confined spaces are those that meet the above definition.
3. **“Permit-Required Spaces That Can Be Reclassified To Non-Permit Spaces”**
A permit space can be reclassified temporally to a non-permit space typically for the

purposes of safe entry. This is done when all hazards are eliminated and remain eliminated for the entire entry, not simply controlled.

4. **“Confined Spaces That Never Will Be Entered”**

Confined spaces that will never be entered. These may include permit and non-permit spaces.

6.2 WORKPLACE EVALUATION AND CONFINED SPACE CLASSIFICATION

The CSE Program Administrator and applicable Department Management/Supervisors will coordinate and conduct an evaluation of the workplace to determine if confined spaces are present and subsequent classification of these spaces to determine which are permit-required spaces. A detailed assessment will be made of each space in order to determine the type and location of each space, its approximate dimensions, number of exits, the reason(s) for entry, actual or potential health and safety hazards, and its classification (i.e. permit or non-permit) prior to entry. The assessment will also note the equipment, personal protective equipment (PPE), and control measure(s) required for safe entry and any special precautions that must be followed for safe entry and work in the confined space. This information will be used when developing specific permit-required confined space entry procedures.

The Confined Space Hazard Assessment Form (See Appendix 1) may be used for assessment recording and is maintained in the EHS Department or area department. A campus confined space inventory is included in Appendix 5 and shall be reviewed and updated periodically as needed to ensure that any new confined spaces are addressed.

The [OSHA Permit-required Confined Space Decision Flow Chart, 1910.146 \(App. A\)](#), found in Appendix 3 of this program may be applied for assistance in the evaluation/assessment process. **NOTE:** Proper application of the decision flow chart in Appendix 3 would facilitate compliance with determining which spaces are permit-required confined spaces.

Any future new confined space introduced to the workplace (i.e. spaces within a new or remodeled building) must be evaluated properly and added to the program.

6.3 IDENTIFICATION OF PERMIT-REQUIRED CONFINED SPACES

Posting

Employees must be made aware of the existence, location and danger of permit-required confined spaces. This can be done by posting signs at the accessible entrances to the permit spaces. Signs identifying permit-required confined spaces shall be posted at each entry point of each permit-required confined space unless other equally-effective means of warning personnel are thoroughly communicated. The signs shall warn of potential hazards, require an entry permit and prohibit unauthorized entry. If space has a locked entry cover or panel, or an access door that can only be opened with special tools, the use of signs may be unnecessary if the employer ensures that all affected employees are informed about such spaces and know that they are not to be opened and entered without taking proper precautions, including temporary signs, to restrict unexpected or unknowing entry.

NOTE: A sign reading DANGER – PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER or using other similar language would satisfy the requirement for a sign.



UW-Stevens Point shall implement other means as necessary to prevent unauthorized entry.

6.4 REEVALUATION OF CONFINED SPACES

When changes in the uses or configurations of confined spaces (permit or non-permit) occur, the hazards, control measures, and classifications of those spaces must be reevaluated and updated as necessary by the Management/Supervisors of the area and the CSE Program Administrator. New procedures must be prepared and existing procedures must be updated when needed. This may require non-permit spaces to be reclassified as permit spaces.

The campus confined space inventory (Appendix 5) shall be reviewed and updated periodically to ensure status of all listed spaces remains as stated. This shall be done by the CSE Program Administrator.

7.0 ENTRY PROCEDURES

7.1 GENERAL SAFETY RULES AND WORK PRACTICES FOR ALL CONFINED SPACES

In order to protect the safety and health of all employees associated with the CSE, employees and supervisors/management shall comply with the following safety rules and work practices for all confined space entries (applies to both permit required and non-permit spaces):

1. No unauthorized open flame allowed and no employee may smoke within 10 feet of a confined space per WI SPS 332.29.
2. All employees shall comply with the requirements of this policy, OSHA 1910.146, State of Wisconsin, Department of Safety and Professional Services, SPS 332.28 - 332.29, and supervisor's instructions.
3. All other existing OSHA, Department of Commerce, or other safety standards and rules (i.e. Personal Protective Equipment, Respiratory Protection, etc.) will be followed during confined space entry.
4. Any confined space (permit or non-permit) with an atmosphere which has a combustible gas content of 10% or more of the lower explosive limit shall not be entered even if a breathing apparatus or respirator is used. See below for further details.

5. It is UW-Stevens Point's policy to test the air of all confined spaces (permit or non-permit) as a precautionary measure. Atmospheric testing of a non-permit CS is not required by the OSHA Confined Space standard. However, testing the atmosphere for toxic gases and oxygen deficiency prior to entering the CS is recommended as a precautionary measure. The OSHA Standard also does not require an attendant for entry into a non-permit required CS, however having an attendant present (if practical) is recommended as a precautionary measure for non-permit confined space entries.

6. Boilers and Other Vessels

Before any employee enters a boiler or any other vessel type confined space (whether permit or non-permit entry), the following safety precautions shall be implemented:

- a. Ensure that the interior temperature of the confined space closely equals the ambient temperature outside the vessel before an entry is made into any part of the boiler or other vessel-type CS subjected to extreme hot or cold temperatures.
- b. Ensure that all hazardous materials (solids and liquids) inside the work area are removed from the vessel as well as possible before any entry is allowed.
- c. Ensure that all lines leading into and away from the vessel are addressed appropriately with regard to lockout/tagout requirements.
- d. Develop proper entry procedures for the specific boiler employees are entering that includes the above and specific hazard controls for the space in question.

7. Traffic Safety

Entrances to all confined spaces that are located in streets shall be guarded in accordance with the following requirements when work is required at these spaces:

- a. Employees shall activate the following warning lights [SPS 332.29 (3)(a)] upon approach to an entrance to a CS:
 - i. Vehicle's beacon light, and
 - ii. Vehicle's four-way hazard flashers.
- b. A vehicle shall be parked to permit traffic to flow in an unobstructed manner and, where possible, to provide protection for the employees. [SPS 332.29 (3)(b)]
- c. Employees shall park the vehicle in such a manner that the vehicles exhaust fumes cannot accumulate in the CS. If this is not possible, the vehicle's exhaust pipe shall be extended away from the confined space. [SPS 332.29 (3)(c)]. Note: if a hazard cannot be avoided, this may require further considerations such as changing a non-permit space into a permit space and requiring full entry procedure be developed including ventilation and continuous monitoring as outline further in this program.
- d. Employees shall properly place traffic safety cones around the manhole and any vehicle in accordance with state and federal traffic ordinances to adequately warn oncoming traffic.

- e. Traffic safety cones shall be visible to traffic in all directions and in such a manner as to protect the employees from the traffic flow. Traffic cones should also be placed far enough from the CS to give drivers adequate notice.
- f. When working on the street or an easement surface, all employees shall at all times wear a traffic safety vest or the equivalent. A flag person(s) shall be added to the CSE team when the need arises. The flag person(s) shall not be considered as the attendant for a permit-required CS.

8. Cleaning Purposes

When a CSE is required for cleaning purposes, the Entry Supervisor, shall review and authorize the procedures and processes to be used while cleaning the CS before entry can take place. The CSE Program Administrator shall be consulted as necessary.

Considerations for cleaning:

- a. Initial cleaning shall be done, if possible, from outside the tank.
- b. Cleaning Process Hazards. The cleaning agent or process itself may create a hazard within a confined space and must be accounted for. Therefore, when additional hazards are created or possible by the cleaning process, the CSE Supervisor shall develop additional safety procedures to control the newly created hazards and ensure employee safety. These special procedures shall be developed before a CS cleaning process takes place. Note this may require reclassification of a non-permit space to a permit space thus requiring all program aspects be followed in this policy.

9. Use of equipment and tools inside the confined space

When entry into a confined space requires the use of equipment and tools inside the space, this equipment shall be inspected and must meet the following requirements:

- a. Hand tools must be in good repair and be kept clean.
- b. Portable electrical tools shall be listed and rated appropriately for the environment they will be used in. Check with EHS for assistance. For example: all equipment that may be used in a potentially flammable atmosphere shall be approved as either explosion proof or intrinsically safe for the atmosphere and shall be approved by a recognized testing laboratory.
- c. All electrical grounds must be checked before electrical equipment is used in a CS.
NOTE: Ground Fault Protectors should be used whenever possible to protect employees from electrical shock when working in damp or wet locations.
- d. All electrical cords, tools, and equipment must be constructed of a heavy-duty, double-insulated cord and/or equipped with a 3-prong plug (double insulated tools with a 2-prong pug may be appropriate in some cases).
- e. All electrical cords, tools, and equipment must be visually inspected for defects before being used in a CS. If found defective, they will be replaced, repaired, or

destroyed before any employee enters the CS.

- f. Cylinders of compressed gases must not be taken into a CS or proper safety precautions and controls must be established prior to entry. All cylinders must be turned off at the cylinder valve when not in use. Exempt from this rule are cylinders that are part of SCBA or resuscitation equipment.
- g. When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur and the machine be disconnected from the power source.
- h. In order to eliminate the possibility of gas escaping through leaks or improperly closed valves, when gas welding or cutting, the torch valves shall be closed and the gas supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period of time, such as during lunch hour or overnight. Where practicable, the torch and hose shall also be removed from the confined space.
- i. Ladders must be adequately secured or of a permanent type that provides the same degree of safety. Note: Permanent ladders must be inspected for rust or corrosion and repaired or replaced, if necessary.
- j. The tool or process itself may create a hazard within a confined space and must be accounted for. Therefore, when additional hazards are created or possible by the use of a given tool in space (i.e. grinding, welding, sanding, etc), the CSE Supervisor shall develop additional safety procedures to control the newly created hazards and ensure employee safety. These special procedures shall be developed before an entry takes place. Note this may require reclassification of a non-permit space to a permit space thus requiring all program aspects be followed in this policy.
- k. For powered tools utilizing compressed air – ensure the air source for the compressor is safe and not drawing any contaminated air into space.

NOTE: Further requirements for confined space entry (permit and non-permit) are listed below. Specific hazard controls must be listed in the permit-space entry procedures for the given space.

7.2 CONFINED SPACES THAT WILL NEVER BE ENTERED

If employees will never enter particular permit spaces, the responsible UW-Stevens Point Department shall take effective measures to prevent employees from entering the permit spaces such as locking the space entryway or sealing it off and marking the space as a permit space that may never be entered. No further entry procedures are required if space will never be entered and it is safe to be left in this status.

If there are changes in the use or configuration of the space, space shall be reevaluated and if necessary, space reclassified and entry procedures established in accordance with this program.

UW- Stevens Point management responsible for outside contractors shall notify any affected contractor of the prohibition of entry to these spaces as applicable.

7.3 NON-PERMIT-REQUIRED CONFINED SPACES

Non-permit spaces may be entered without further procedures (other than above in 7.1), though basic everyday safety precautions and rule compliance must be followed as applicable.

7.3.1 RECLASSIFICATION OF A NON-PERMIT CONFINED SPACE TO A PERMIT-REQUIRED CONFINED SPACE

When there are changes in the use or configuration of a non-permit confined space that may increase the hazards to entrants and generate permit space-related hazards, the space shall be reevaluated and classified as a permit-required space, if necessary. Reclassification would be required for situations such as:

1. If the work to be performed inside a non-permit space generates or has the potential to generate a permit-space type temporary hazard (e.g. welding, cleaning with solvents, etc)
2. During the application of solvents, paints chemicals or other materials that could potentially create a hazardous atmosphere in a confined space.
3. During welding, cutting, brazing, or soldering in some confined spaces with limited ventilation.
4. Due to permanent reconfiguration or other changes that create a permit-required space hazard situation.

The above may require temporary or permanent reclassification.

The Entry Supervisor the CSE Program Administrator shall reevaluate and reclassify confined spaces as necessary depending upon the work activities to be performed in or related to these spaces.

Reclassification of a non-permit space to a permit space requires full compliance with all permit space requirements listed in this policy.

7.4 PERMIT-REQUIRED CONFINED SPACE ENTRY

UW-Stevens Point employees that will enter permit spaces will follow all aspects of the UW-Stevens Point written permit space program that complies with OSHA and WI Department of Safety and Professional Services requirements. The written program shall be available for inspection by employees and their authorized representatives.

The UW-Stevens Point procedures and practices listed below and throughout the document shall be followed for safe permit-space entry operations. This includes all permanent permit-spaces and those non-permit spaces that may need to be reclassified to permit space for reasons described above.

7.4.1 GENERAL PERMIT-REQUIRED CONFINED SPACE ENTRY PROCEDURES AND REQUIREMENTS

Below are general permit-required confined space entry procedures that must be followed for all permit space entries as applicable.

1. All applicable requirements listed in 7.1 through 7.3.
2. Only personnel trained and authorized are allowed to enter permit spaces. Contact UW-Stevens Point EHS Department for training.
3. Supervisors, attendants and entrants must complete the general requirements, discussed in this section, for all permit space entries.
4. The Entry Supervisor shall be notified by the entrants and attendants of the need to enter a permit space prior to entry. The Entry Supervisor must authorize all permit space entries and ensure the means are in place to verify that conditions in the permit space are acceptable for entry throughout the duration of the authorized entry.
5. A CS Entry Permit (see Appendix 4) shall be properly completed in full and all requirements met and signed by the Entry Supervisor prior to entry into the permit-required confined space. The permit shall ensure acceptable entry conditions have been met and means to maintain them are in place. See Section 8.0 for details on compliance with the permit system. All items on the permit must be completed in full.
6. Before entry, both the supervisor and entrants shall assure that space has been properly isolated from all hazards such as external or internal energy sources and/or supply lines using proper lockout/tagout procedures or other means (which would also require compliance with the UW-Stevens Point Lockout Tagout policy and training requirements). Hazards could include but are not limited to, internal power-driven equipment, moving parts, pipelines carrying chemicals, steam, or gasses, supply pumps, engulfment hazards, etc.
7. Make safe other physical hazards as necessary. Other hazards to consider include but are not limited to, temperature extremes, noise, wet surfaces, falling objects, engulfment hazards, etc.
8. If the space contained or used to contain a flammable, corrosive, toxic, or otherwise injurious material, space must be decontaminated prior to entry.
9. Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.
10. Only properly trained and authorized individuals will be allowed to enter a permit-required confined space, serve as an attendant, or act as entry supervisor. All individuals involved are responsible for performing their duties as described in this policy.
11. Ensure all other permit space hazards are eliminated or properly controlled.
12. A permit-required space shall be attended at all times by at least one trained and authorized Attendant while the permit space is occupied. Authorized entrant and attendants will maintain constant two-way communication with each other.
NOTE: Attendants may be assigned to monitor more than one permit space provided the duties can be effectively performed for each permit space that is monitored. If multiple spaces are to be monitored by a single attendant, means

and procedures should be provided to enable the attendant to respond to an emergency affecting one or more of the permit spaces being monitored without distraction from the attendant's responsibilities. These means and procedures shall be listed on the permit by the entry supervisor.

13. To facilitate non-entry rescue by attendants or other, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space. Each authorized entrant shall use a chest or full-body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant. Wristlets may be used in lieu of the chest or full-body harness if the employer can demonstrate that the use of a chest or full-body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative. The free end of the line shall be attended to by the attendant. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 m) deep.

NOTE: The anchor point shall not be secured to a motor vehicle in a manner that would pull the line out of the space if the vehicle moved.

A retrieval line is not required if the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. For example:

- a. The shape, size, or locations of the confined space are not suited for a body harness and lifeline. A permit space has obstructions or turns that would prevent pull on the retrieval line from being transmitted to the entrant, or
- b. A permit space from which an employee being rescued with the retrieval system has projections that would injure the employee if forcefully removed, or
- c. A permit space, when entered by an entrant using an air-supplied respirator and retrieval lines, could pose an entanglement hazard.

In these situations a specified procedure shall be developed by the supervisor in consultation with EHS to ensure equivalent safety in the absence of retrieval systems.

14. Safety Data Sheets shall be available for substances that entrants may be exposed to in the permit space. These SDS shall be made available to the medical facility potentially treating any injured entrant. Refer to UW- Stevens Point Hazard Communication procedure for further details.
15. Complete all Air Testing and Evaluation requirements. See Air Testing and Evaluation Requirements, Section 9.2, below for further compliance details. Certify the space meets safe air levels prior to entry. Per UW- Stevens Point policy, all permit spaces shall be continuously monitored. Each entrant shall be required to wear or carry an air-monitoring instrument at all times within the space if the permit space has the potential for a hazardous atmosphere.

16. Ensure ventilation of the space is completed as necessary. See Ventilation Requirements, Section 9.4 below for details.
17. Provide the following equipment at no cost to employees, maintain equipment properly, and ensure that employees use that equipment properly:
 - a. Testing and monitoring equipment needed to comply this program;
 - b. Ventilating equipment needed to obtain acceptable entry conditions;
 - c. Communications equipment necessary for compliance with the program;
 - d. Personal protective equipment insofar as feasible engineering and work practice controls do not adequately protect employees. Personal protective equipment, including respirators, shall be provided to entrants as specified in the permit for safe entry into the permit and used properly. All PPE must be approved by the CSE Entry Supervisor. Proper respiratory equipment shall be provided according to the atmospheric hazards anticipated. Escape respirators supplied in the space when the potential for IDLH toxic or oxygen deficient atmosphere exists.
NOTE: Any individual required to wear respiratory protection must properly use and maintain the respirator in accordance with OSHA 1910.134 and follow the UW-Stevens Point Respiratory Protection program. Contact UW- Stevens Point EHS for assistance;
 - e. Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency;
 - f. Barriers and shields as required;
 - g. Equipment, such as ladders, needed for safe ingress and egress by authorized entrants;
 - h. Rescue and emergency equipment needed to comply with this program, except to the extent that the equipment is provided by rescue services; and
 - i. Any other equipment necessary for safe entry into and rescue from permit spaces.
18. An atmosphere-supplied breathing apparatus shall be used for entry into an unknown atmosphere in a permit space. A Rescue Team, with self-contained breathing apparatus (SCBA) must be present on-site and immediately available if entry is into an atmosphere that is immediately dangerous to life or health is required. Entry is prohibited (under any circumstance or with any PPE) into a space which has a combustible/flammable gas content of 10% or more of the lower explosive limit.
19. Any condition making removal of an entrance cover unsafe (i.e. pressure differential, physical obstacles, etc.) shall be eliminated before the cover is removed. When the cover has been removed, the opening(s) shall be promptly guarded and protected to prevent accidental fall into the opening and prevent objects from falling into the opening. Openings to space shall be kept clear of hand tools and debris and protected from items falling into space.
20. The appropriate vehicle, pedestrian or other barriers shall be used to protect workers inside from external hazards.
21. Metal ladders shall not be used when working around electrical equipment.

22. Any use of chemicals or welding, soldering, or cutting operations in or around the space must be approved by the CSE Supervisor and evaluated to ensure proper controls can be implemented.
23. Follow all rescue requirements found in Section 10.0.
24. A written entry procedure shall be developed for each permit space that will be entered. Written procedures shall be completed by area management, Entry Supervisor, and the CSE Program Administrator. Written procedures shall incorporate all requirements of this Program and any special or unique issue with the given permit-space. Written procedures may be applied to multiple, similar, or identical spaces as long as safety can be assured.

7.5 PERMIT-REQUIRED SPACES THAT CAN BE RECLASSIFIED TO NON-PERMIT SPACES

A permit space can be reclassified to a non-permit space if the following conditions and procedures are met and maintained (OSHA 1910.146(c)(7)):

1. All actual and potential atmospheric hazards must be eliminated (i.e. draining chemical tanks of their contents, purging any residual chemicals with water, and ventilating the space after purging is complete). If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated. Controlling atmospheric hazards by ventilation or other means is not sufficient, they must be eliminated. Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. Section 7.6 covers permit space entry where it can be demonstrate that forced air ventilation alone will control all hazards in the space.
2. All non-atmospheric hazards within the space must be eliminated (e.g. by lockout/tagout, empty of contents, etc., shutting boilers down, opening all access ports to allow for temperature reduction and natural ventilation, and by taking all appropriate safety measures (i.e. locking out machines, etc.) to render the space safe for entry).
3. All hazards must remain eliminated while non-permit entry is occurring. If hazards develop during entry, employees must leave the space and the space must be reevaluated to determine whether a permit now is needed.
4. A written reclassification permit certification must be prepared for each entry of this type. The certification must document how all hazards in a permit space have been eliminated and will remain eliminated. This document at a minimum must include the date, the location of the space and the signature of the person making the determination. It must be available to the person(s) entering the space or to that employee's authorized representative. See Appendix 4 for the Confined Space Entry Permit which may be utilized for reclassification documentation.

Spaces reclassified to non-permit status may be entered as such upon satisfying the conditions described above. However, if entry is necessary to eliminate permit-space hazards, such entry must be done under permit conditions and following permit entry requirements. Once elimination or verification is complete, non-permit status may be granted. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the

permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

If hazards arise or other changes occur affecting safety within a permit space that has been reclassified to a non-permit space under this section, each employee in the space shall exit the space. The Entry Supervisor along with the CS Program Administrator, as needed, shall then reevaluate the space and determine whether it must be reclassified as a permit space, in accordance with the OSHA standard.

7.6 PERMIT-REQUIRED SPACES UTILIZING ALTERNATE PROCEDURES

OSHA 1910.146(c)(5) allows an employer to utilize alternate entry procedures under specific circumstances for permit space entry when the only hazard posed by the permit space is an actual or potential hazardous atmosphere and this hazard may be controlled by ventilation and all specified requirements are followed. UW- Stevens Point will not utilize this alternate procedure option as a routine practice as we do not have the foreseen need. However, if necessary, this could be an option for entry if deemed necessary. If this procedure option is required, UW- Stevens Point EHS Department and the Entry Supervisor will need to write and document the specific alternate procedure, review and train employees in them, and authorize an entry utilizing this process following the requirements of OSHA 1910.146(c)(5).

8.0 PERMIT SYSTEM

8.1 ENTRY PERMITS

Permit-required confined space entry shall be controlled through a permit system. The permit is used to authorize entry and to ensure that proper precautions are taken. At UW- Stevens Point the permit also is used in entries where a permit space is reclassified to a non-permit space. The permit can also be used for non-permit space entries to document air monitoring results. See Appendix 4 for the UW- Stevens Point Permit.

Permits shall be written by the supervisor and shall contain the following information (see Appendix 4):

1. The permit space to be entered.
2. The purpose of the entry and type of work to be performed.
3. The date.
4. The authorized duration of entry.
5. The authorized entrants who will be entering the space.
6. The authorized attendants who will be stationed at the space.
7. The entry supervisor
8. The hazards of the permit space
9. Control measures to protect entrants from the hazards. This shall include, where appropriate but not limited to, lockout/tagout procedures, ventilation, or controlling site access;
10. Acceptable environmental conditions levels for air quality and environmental factors such as temperature that might affect the safety of the confined space work;

11. Atmospheric monitoring procedures that shall be performed before and during space entry. Specify monitoring equipment type. A verification of timely and proper instrument calibration shall also be included;
12. Contingency and rescue procedures;
13. Required rescue equipment;
14. Communication methods;
15. Personal protective equipment measures required; and
16. Other information necessary to assure safe and efficient work.
17. Acknowledgment of any “hot work” to be performed such as welding, and a description of precautions to be taken;
18. Signature of the person authorizing and canceling the permit.

Employees needing to enter a permit-required confined space shall notify their supervisor prior to entry. Sufficient time must be planned to complete all entry requirements. Before permit-space entry is authorized a UW- Stevens Point entry permit (see Appendix 4) shall be completed and signed to document the completion of all required hazard control and other measures to provide for safe entry to all permit-required confined space entries (including those permit spaces that will be reclassified). The Entry Supervisor is responsible for preparing and signing the permit before entry begins. The permit must be posted at the entry of the permit-required confined space during entry or otherwise made available to all entrants and their authorized representatives so that the entrants can confirm that pre-entry preparations have been completed.

Before and during entry, the confined space atmosphere shall be continuously monitored by a device capable of simultaneously monitoring carbon monoxide, oxygen, hydrogen sulfide, and combustibles. Individuals operating these air monitoring devices shall be trained in their proper use.

8.2 PERMIT DURATION

The permit shall be dated and carry an expiration time. The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit. The permit must be updated for each shift and may be extended to each shift if entry conditions are still acceptable and the permit is updated and authorized by the Entry Supervisor.

Prior to the cancellation of a permit, the permit space must be made ready for ordinary operations and confirmed by the Entry Supervisor.

All confined space entry permits must be given to the Entry supervisor after the work is completed and the Entry Supervisor is responsible for terminating the entry and canceling the permit. The entry supervisor must write the entry time and finish time on the permit, sign the authorization, and sign and date when the permit is cancelled. Specifically, the entry supervisor must terminate the entry and cancel the permit when any of the following conditions occur:

1. The entry operations covered by the permit have been completed;
2. A condition not allowed by the permit develops in or near the space; or

3. Any other change in the existing conditions occurs that may cause a new hazard or casts doubt upon the ability to continue safely.

When the work needs to continue and the permit has expired, a new permit must be issued by following all procedures of testing the atmosphere, verifying acceptable equipment and conditions, and obtaining authorizations for entry.

8.3 PERMIT DOCUMENT RETENTION

Cancelled permits must be retained on file by supervision for at least one (1) year and be available for auditing and annual review. Problems encountered during an entry operation must be recorded on the permit for reference and proper corrections made by the Confined Space Entry Program Administrator, Entry Supervisor, and Department Management.

9.0 ATMOSPHERIC TESTING AND CONDITION REQUIREMENTS PRIOR TO ENTRY

Atmospheric testing is required for two distinct purposes: 1) evaluation of the hazards of the permit space, and 2) verification that acceptable entry conditions for entry into that space exist.

Evaluation Testing: The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data, and development of the entry procedure, should be done by, or reviewed by the CSE Program Administrator based on evaluation of all serious hazards.

Verification Testing: The permit space atmospheric conditions which may contain a hazardous atmosphere should be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions before entry is authorized to begin. Pre-entry testing shall be performed from outside the space before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the areas where authorized entrants are working (e.g. having the entrant wear a monitor or carry it in the space). The atmosphere within a permit space and particularly within the authorized entrant's immediate area shall be continuously monitored and evaluated for oxygen, hydrogen sulfide or carbon monoxide, combustible gas and any other potential toxic air contaminant which there is reason to believe may be present in the permit space prior to entry. Results must be documented on the permit adjacent to the stipulated acceptable entry condition. There may be not hazardous atmosphere within the permit space whenever any employee is inside the space. See below for further details.

9.1 SAMPLING DEVICE

The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise. An approved, intrinsically safe, and calibrated multi-gas detector shall be used. The

sampling device utilized to measure the atmosphere shall be calibrated relative to the oxygen content of the ambient air at the time of sampling. Calibration of the sampling device relative to the oxygen content shall be performed where the 20.9% natural content of oxygen in the air is most likely to occur. The monitor should include a probe or pump for remote sampling.

NOTE: Oxygen calibration should not be performed near a confined space opening.

A sampling device which has a zero set shall be zeroed in a clean atmosphere before each sampling. Calibration of a sampling device shall be conducted as often as recommended by the manufacturer, but at least once every 6 months. Measurement of values for each atmospheric parameter should be made for at least the minimum response time of the test instrument specified by the manufacturer.

The monitor must be equipped with an audible and visible alarm or danger signaling device that will alert employees when a hazardous condition develops. If other known air hazards may exist, other approved air detection instruments shall be obtained for measuring the air. The results are to be documented on the entry permit. No space is to be entered unless the air is sampled and documented on the permit within acceptable levels and declared as "safe".

9.2 AIR TESTING AND EVALUATION REQUIREMENTS

The following describes generally safe atmospheric levels for confined space entry:

1. **Oxygen:** The oxygen concentration must be in the range of 19.5% - 23.5% to be considered safe.
2. **Flammable Atmospheres:** flammable gas, vapor, or mist concentration must be less than 10% of the lower explosive limit (LEL) to be considered safe. Must confirm the oxygen level is in the safe range for the flammable reading to be accurate. No person is allowed in any space where the flammable atmosphere is above 10% of the LEL.
3. **Combustible dusts:** The concentration of airborne combustible dust **must not exceed** 10% of the Lower Flammable Limit (LFL). However, this is difficult to measure. An indication of this condition is if the dust obscures vision at a distance of 5 feet. At UW-Stevens Point visibility must be greater than ten feet for the air to be considered safe. Under no circumstances shall anybody enter or remain in a confined space when the airborne combustible dust concentration is such that visibility is obscured at ten feet or less.
4. **Toxic Atmospheres:** Carbon monoxide levels must be below 35 PPM for the air to be considered safe. Hydrogen Sulfide levels must be below 10 PPM for the air to be considered safe. When other toxic materials may be present, special testing must be performed to determine whether a hazard exists. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is established by OSHA or the American Conference of Governmental Industrial Hygienist which could result in employee exposure in excess of the established dose or permissible exposure limit (PEL) must be eliminated or controlled or proper PPE utilized. See Definitions, Section 4.0 for further details.

Entry into a confined space is **not** allowed if monitoring indicates deficiency in any of the above categories or any other hazardous atmosphere exists in the space.

9.3 AIR TESTING PROCEDURES

1. The air inside the permit space is to be tested from outside the space prior to entry using a probe, pump, extension, or other method. All levels of the space (top, middle, bottom) must be tested with a remote non-sparking probe or other device/method to determine the atmospheric condition. When testing inside the space (after non-entry test are safe) the atmospheric envelope should be tested a distance of approximately 4 feet in the direction of travel and to each side. The entrant's rate of progress should be slowed to accommodate the sampling speed and detector response. The entire portion of the space to be occupied must be tested. Some gasses and vapors are heavier than air and some are lighter than air which can cause stratification of these either in the bottom or the space or at the top of a space. The sampling device or a non-sparking probe attached to the sampling device shall be used to sample the atmosphere of a permit space prior to entry and as specified in this program. When entry to a confined space is by means of a manhole, a probe shall be inserted through the pick hole of the manhole cover, or the manhole cover shall be pried open on the downwind side to allow just enough room for insertion of the probe or device.
2. When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors. **NOTE:** Most gas monitors today will test for all concurrently.
3. Test prior to starting any ventilation system or equipment to provide a baseline. If a ventilation system is used to remove any hazardous condition, subsequent continuous testing must be performed with the ventilation system turned on to ensure that contaminants are removed and the ventilation system is not itself causing a hazardous condition.
4. Retesting of the atmosphere should occur whenever there is a change in work conditions or work activity that could introduce new hazards into the space. The atmosphere must be retested as a minimum at the start of each permit period, at the start of each workshift, whenever there is a change of work crew, and whenever the permit space and immediate area have been vacated for more than five minutes. OSHA required continuous monitoring when the permit space has the potential for developing a hazardous atmosphere, when the space is large or part of a continuous system (i.e. sewer), when generation of a hazardous atmosphere may result from work procedures, and when exhaust ventilation has been used to bring a hazardous atmosphere within the acceptable limits.
5. To ensure safety and satisfy OSHA monitoring requirements, UW- Stevens Point requires continuously monitoring during all permit-required confined space entries while the entrant is in the space. The space may be monitored outside by the attendant using a probe and pump or the equipment may be brought into the space by the entrant. The choice will depend on the space and the work to be performed. The attendant must be able to hear the instruments alarms. In some circumstance two monitors may be required.
6. Any employee who enters the space, or that employee's authorized representative, shall be provided the opportunity to observe the testing processes and provided with the results. They may also request reevaluations be performed of the space. Results shall be immediately provided to the authorized entrant or that employee's authorized representative.
7. There may be no hazardous atmosphere (outside of the safe levels describe above in Section 9.2, Air Testing and Evaluation Requirements) within the space whenever any employee is inside the space.

8. If a hazardous atmosphere is detected during entry:
 - a. The attendant shall order evacuation immediately;
 - b. Each employee shall exit the space immediately;
 - c. The space shall be evaluated to determine how the hazardous atmosphere developed; and,
9. Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.
10. If there are known residues of a hazardous product remaining in the space (i.e. chemical storage tank) the space should be tested for that specific product to ensure it is at a safe level. Contact EHS to determine safe levels.

In order to achieve and maintain a safe atmosphere, one or more actions may have to be taken to render the space safe for human occupancy. This could include (but not limited to):

1. **Isolation:** Precautions taken to prevent release of material and/or energy into the space. This can be achieved through blinding, blanking, disconnecting, lockout/tagout, or removal of incoming pipes or related energy sources.
2. **Separation:** Where there is a possibility of external hazards, the space may require barricades to protect the entrants from falling objects or from unauthorized entry.
3. **Ventilation:** Purging, inserting, flushing, or otherwise ventilating the space with fresh air. The replacement air will displace the contaminated air allowing for safe entry. This can be accomplished by removing ports and openings or by mechanically ventilating the vessel.

9.4 VENTILATION REQUIREMENTS

Air may not be able to move freely in and out of a confined space due to the design of the space. All spaces should be opened prior to entry to allow for natural ventilation to occur. However, deadly and harmful gases may be trapped inside, particularly if the space is used to store or process chemicals or contains organic substance which may decompose. For these reasons forced ventilation may be required to make the space's atmosphere safe and maintain it at a safe level throughout the entry. Examples of ventilation systems include blowers, fans, or other air movers. If forced ventilation is required, an employee may not enter the space until force ventilation has eliminated the hazard and made the space safe.

Continuous forced ventilation is required when:

1. Testing indicates a hazardous atmosphere due to flammable, toxic, combustible, or oxygen levels outside the "safe" level.
2. There is a recognized potential for atmospheric conditions moving out of the acceptable range to an "unsafe" level.
3. Generation of a hazardous atmosphere is possible as a result of work being performed in or near the space such as welding, cutting, painting, chemical cleaning, etc.

Performance Requirements for Ventilation include:

1. The ventilation system must supply fresh air by proper placement of the air intake; care must be taken to make sure that discharged air is not re-circulated into the space.

2. Ventilation controls must be located at a safe distance from the permit space or rated for such environment.
3. The ventilation system should provide an audible warning to signal when there is a failure.
4. The ventilation system must be explosion proof if it is used to exhaust an actual or potentially explosive or combustible atmosphere. Refer to NFPA 70 and Article 250 of the NEC, 1978.

Whenever ventilation is used, employees shall:

1. Direct forced air ventilation to ventilate the immediate areas where an employee is or will be within the space and shall continue ventilating until all employees leave.
2. Keep the blower controls at least 10 feet from the CS, and out of the wind or upwind from the entrance to the CS (to avoid recirculation of air from within the CS).
3. Use a ventilation blower that is designed to be intrinsically safe if the possibility of an explosive atmosphere could exit the CS. Consideration must also be given to the possibility of static discharge that could be a source of ignition.
4. Ensure that the exhaust systems are designed and placed so that they protect employees in the surrounding area from being contaminated.
5. Ensure that the ventilation system is fully operational and air is supplied from a clean source and will not increase the hazards in the space.
6. Ensure that contaminated air is not recirculated into the CS.
7. Purge the ventilation hose outlet for at least one-minute (at street level if possible) before inserting the hose into the confined space.
8. Maintain continuous local ventilation when toxic atmospheres are being produced as part of a work procedure (i.e., welding, painting or cleaning operations).
9. Generally, the atmosphere in a permit space can be ventilated more efficiently by blowing fresh air into the space. Exhaust ventilation is appropriate for point source control such as exhausting welding fumes.
10. The selection of the equipment and ventilation methods should be determined from: the size of the permit space, size of openings; contaminants to be removed and their source, and source of fresh air.
11. The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

10.0 RESCUE

Rescue services must be available to perform rescue in permit-required confined spaces. This section outlines UW-Stevens Point permit-required confined space rescue program.

10.1 PERMIT-SPACE RESCUE AT UW-STEVENS POINT

The Stevens Point Fire Department will serve as the designated and authorized rescue service for those situations requiring entry rescue from UW-Stevens Point permit-required confined spaces.

The Stevens Point Fire Department (SPFD) must be called to coordinate rescue before entry occurs. The Entry Supervisor is to call the non-emergency number (715-344-1833) to confirm that SPFD rescue personnel are available before entry. If the SPFD is called out during permit

entry, they will notify the Entry Supervisor that entry must be suspended until SPFD Personnel are available for rescue. The Entry Supervisor will suspend entry until the SPFD notifies him/her that rescue personnel are again available. Permit space entry may then resume. Upon completion of the entry, the Entry Supervisor will notify the SPFD that the entry is complete.

All individuals involved in permit space entry shall call 911 or UW-Stevens Point Protective Services at 3456 in the event of an emergency to summon rescue services. The attendant shall perform necessary emergency operations and non-entry rescue that can be accomplished without entering the confined space.

Individuals not trained and authorized in permit required confined space rescue shall not perform rescue. The Attendant and Entry Supervisor shall ensure only authorized personnel perform rescue requiring entry into a permit-required confined space. In order to be on a permit-required confined space rescue team, one must satisfy all OSHA requirements in 1910.146(k).

The SPFD will be evaluated for their ability to perform proper permit-required confined space rescue by the UW- Stevens Point Confined Space Entry Program Administrator per the requirements of OSHA 1910.146(k).

The UW- Stevens Point Confined Space Entry Program Administrator will inform the SPFD of the hazards they may confront when called on to perform rescue at the site.

The UW- Stevens Point Confined Space Entry Program Administrator will arrange for access to all permit spaces from which rescue may be necessary with the SPFD for procedure development and training purposes as necessary. The SPFD will be encouraged to practice and simulate rescue operations at our facility (UW- Stevens Point permit spaces) annually. SPFD trains their personnel in rescue and PPE. CSE Program Administrator will work with SPFD as needed with other issues related to permit space rescue.

10.2 NON-ENTRY RESCUE

Non-entry rescue in permit spaces such as retrieval utilizing a body harness and retrieval line shall be performed by the Attendant or other trained personnel.

To facilitate non-entry rescue by attendants or other, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space. Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant. Wristlets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative. The free end of the line shall be attended to by the attendant. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 m) deep.

NOTE: The anchor point shall not be secured to a motor vehicle in a manner that would pull the line out of the space if the vehicle moved.

A retrieval line is not required if the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. For example:

- a. The shape, size, or locations of the confined space are not suited for a body harness and lifeline. A permit space has obstructions or turns that would prevent pull on the retrieval line from being transmitted to the entrant, or
- b. A permit space from which an employee being rescued with the retrieval system has projections which would injure the employee if forcefully removed, or
- c. A permit space, when entered by an entrant using an air-supplied respirator and retrieval lines, could pose an entanglement hazard.

In these situations a specified procedure shall be developed by the supervisor in consultation with EHS to ensure equivalent safety for the absence of retrieval systems.

Self rescue shall be conducted by those entrants capable of such as soon as deemed necessary.

10.3 NON-PERMIT SPACE RESCUE

Rescue into non-permit spaces or spaces reclassified to non-permit may be performed as any other rescue follow common safety practices as necessary. Permit space rescue requirements do not apply in these situations.

11.0 EMPLOYEE TRAINING

All Entrants, Attendants, Entry Supervisors, and other affected managers/directors/supervisors shall be trained and properly equipped to recognize, understand, and control hazards that may be encountered in the permit space prior to participating in permit space entries. Supervisors are responsible for ensuring their affected employees are trained. The training must provide each affected employee with the understanding, knowledge, and skills necessary for safe performance entry duties. The training shall establish employee proficiency in the duties required by this section and shall introduce new or revised procedures, as necessary for compliance with all confined space requirements. Training should include both classroom and hands-on training in entry procedures, atmospheric testing, equipment use, non-entry rescue, and other applicable areas.

All training must be documented on a Training Record (See Appendix 2). This training record (certification) shall be available for inspection by employees and their authorized representative. 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. When there is a change in the permit space operations that present a hazard about which an affected employee has not previously been trained.
4. Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

Employees shall receive training in the following areas:

1. Associated safety and health hazards of the CSE

2. Duties of entrants and attendants
3. Air monitoring and attendants
4. Respiratory protection
5. Emergency rescue procedure
6. Lockout isolation procedures
7. All other relevant information in this procedure and in OSHA 1910.146.

Permit space rescue personnel shall be trained with an adequate level of proficiency per OSHA 1910.146(k).

11.1 CPR/FIRST AID TRAINING AND CERTIFICATION

Each employee required to enter a permit-required confined space shall be trained [per WI SPS 332.28 (3)] and certified through an approved adult CPR/First Aid course every year. Automatic External Defibrillator training is also recommended in conjunction with this training.

11.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

All entrants and attendants shall receive training on the proper use of any PPE needed to perform the job safely, such as, protective clothing and suits, gloves, respiratory protection; confined space rescue equipment, body harnesses, hearing protection, and eye/face, hand, foot and head protection. Other applicable PPE standards and requirements shall apply as applicable (such as the respiratory requirements in OSHA 1910.134).

11.3 TRAINING DOCUMENTATION

The accomplishment of training shall be certified. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives. Supervisors shall maintain certification for their employees. EHS will maintain documentation of training they have completed or coordinated. Training Record (Appendix 2) may be used for this purpose.

12.0 EMPLOYEE PARTICIPATION

UW-Stevens Point shall consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program.

Employers shall make available to affected employees and their authorized representatives all information required of this policy.

13.0 OUTSIDE CONTRACTORS OR MULTIPLE EMPLOYERS

Any non-university employee (i.e. outside contractor) requiring access to a confined space under UW-Stevens Point's control shall first notify the respective project manager. It is the campus project manager's responsibility to assure the contractor is provided with the below information. On jobs managed by the Wisconsin Division of Facilities Development, the DFD Project manager is responsible for assuring all requirements OSHA and WI Department of

Safety and Professional Services regulations are followed by the contractors and necessary information provided to the contractors.

When UW-Stevens Point arranges to have employees of another employer (contractor) perform work that involves permit space entry, the UW-Stevens Point Project Manager, with assistance from the CSE Program Administrator, shall:

1. 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 OSHA's standard including ensuring the contractor is providing rescue capabilities per the standard;
2. Verify the contractor has an appropriate permit required confined space entry program.
3. Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space;
4. Apprise the contractor of any precautions or procedures that UW-Stevens Point has implemented for the protection of employees in or near permit spaces where contractor personnel will be working;
5. Coordinate entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces so that employees of one employer do not endanger the employees of any other employer; and
6. 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 at UW-Stevens Point shall:

1. Obtain any available information regarding permit space hazards and entry operations from the host employer;
2. Coordinate entry operations with the host employer, when both host employer personnel and contractor(s) personnel will be working in or near permit spaces simultaneously so that employees of one employer do not endanger the employees of any other employer; and
3. Inform the host employer 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 SEWER SYSTEM ENTRY EXTRA REQUIREMENTS

Any entry into a sewer system must comply with this program and all requirements of OSHA's 1910.146 Appendix E. Written entry procedures for sewer entry must be developed by the affected department in conjunction with the CSE Program Administrator and comply with Appendix E requirements. These include:

Sewer entry differs in three vital respects from other permit entries; first, there rarely exists any way to completely isolate the space (a section of a continuous system) to be entered; second, because isolation is not complete, the atmosphere may suddenly and unpredictably become lethally hazardous (toxic, flammable or explosive) from causes beyond the control of the entrant or employer, and third, experienced sewer workers are especially knowledgeable in entry and work in their permit spaces because of their frequent entries. Unlike other employments where

permit space entry is a rare and exceptional event, sewer workers' usual work environment is a permit space.

(1) Adherence to procedure. The employer should designate as entrants only employees who are thoroughly trained in the employer's sewer entry procedures and who demonstrate that they follow these entry procedures exactly as prescribed when performing sewer entries.

(2) Atmospheric monitoring. Entrants should be trained in the use of, and be equipped with, atmospheric monitoring equipment which sounds an audible alarm, in addition to its visual readout, whenever one of the following conditions are encountered: Oxygen concentration less than 19.5 percent; flammable gas or vapor at 10 percent or more of the lower flammable limit (LFL); or hydrogen sulfide or carbon monoxide at or above 10 ppm or 35 ppm, respectively, measured as an 8-hour time-weighted average. Atmospheric monitoring equipment needs to be calibrated according to the manufacturer's instructions. The oxygen sensor/broad range sensor is best suited for initial use in situations where the actual or potential contaminants have not been identified, because broad range sensors, unlike substance-specific sensors, enable employers to obtain an overall reading of the hydrocarbons (flammables) present in the space. However, such sensors only indicate that a hazardous threshold of a class of chemicals has been exceeded. They do not measure the levels of contamination of specific substances. Therefore, substance-specific devices, which measure the actual levels of specific substances, are best suited for use where actual and potential contaminants have been identified. The measurements obtained with substance-specific devices are of vital importance to the employer when decisions are made concerning the measures necessary to protect entrants (such as ventilation or personal protective equipment) and the setting and attainment of appropriate entry conditions. However, the sewer environment may suddenly and unpredictably change, and the substance-specific devices may not detect the potentially lethal atmospheric hazards which may enter the sewer environment.

Although OSHA considers the information and guidance provided above to be appropriate and useful in most sewer entry situations, the Agency emphasizes that each employer must consider the unique circumstances, including the predictability of the atmosphere, of the sewer permit spaces in the employer's workplace in preparing for entry. Only the employer can decide, based upon his or her knowledge of, and experience with permit spaces in sewer systems, what the best type of testing instrument may be for any specific entry operation.

The selected testing instrument should be carried and used by the entrant in sewer line work to monitor the atmosphere in the entrant's environment, and in advance of the entrant's direction of movement, to warn the entrant of any deterioration in atmospheric conditions. Where several entrants are working together in the same immediate location, one instrument, used by the lead entrant, is acceptable.

(3) Surge flow and flooding. Sewer crews should develop and maintain liaison, to the extent possible, with the local weather bureau and fire and emergency services in their area so that sewer work may be delayed or interrupted and entrants withdrawn whenever sewer lines might be suddenly flooded by rain or fire suppression activities, or whenever flammable or other hazardous materials are released into sewers during emergencies by industrial or transportation accidents.

(4) Special Equipment. Entry into large bore sewers may require the use of special equipment. Such equipment might include such items as atmosphere monitoring devices with automatic

audible alarms, escape self-contained breathing apparatus (ESCBA) with at least 10 minute air supply (or other NIOSH approved self-rescue devices), waterproof flashlights, and may also include boats and rafts, radios and rope stand-offs for pulling around bends and corners as needed.

15.0 REVIEW

The Confined Space Entry Program Administrator shall review the Program at least annually and whenever there is reason to believe that the measures taken under the permit space program may not protect employees. Cancelled permits and other available information and records shall be used in the review in order to determine if:

1. Changes should be made to improve the program's overall effectiveness;
2. Additional hazards have been identified within a given space;
3. Additional measures should be taken to protect the entrants;
4. Additional confined spaces should be included within the program;
5. Some locations can be removed from the program; and
6. Other changes or improvements are needed.

Changes and revisions needed shall be made by the Confined Space Entry Program Administrator, Entry Supervisors, and affected department management to correct deficiencies found to exist before subsequent entries are authorized. Specifically review is required:

1. Annually;
2. When the employer has reason to believe that the measures taken under the permit space program may not protect employees and revise the program to correct deficiencies found to exist before subsequent entries are authorized;
3. Examples of circumstances requiring the review of the permit space program are:
 - any unauthorized entry of a permit space,
 - the detection of a permit space hazard not covered by the permit,
 - the detection of a condition prohibited by the permit,
 - the occurrence of an injury or near-miss during entry,
 - a change in the use or configuration of a permit space, and
 - employee complaints about the effectiveness of the program.

Entry permits will be reviewed and revised annually and as necessary by the Entry Supervisor and CSE Program Administrator and maintained on file for minimum of one year.

APPENDIX 1

CONFINED SPACE HAZARD ASSESSMENT FORM UW-STEVENS POINT

Hazard Codes:

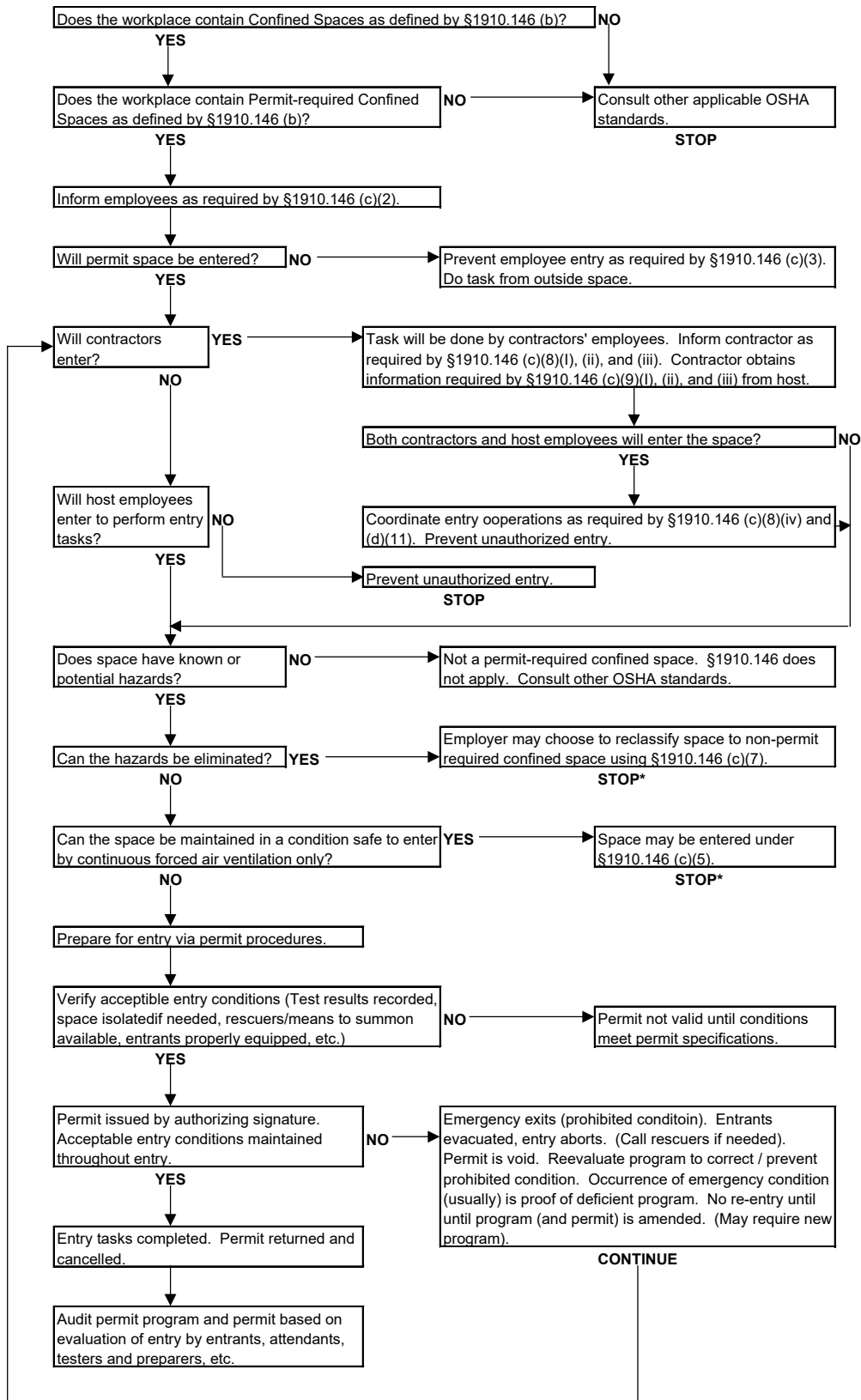
1. Atmosphere is within acceptable limits.
2. Contains or has a potential to contain a hazardous atmosphere.
3. Contains a material that has the potential for engulfing an entrant (i.e. grain, sand)
4. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.
5. Contains moving parts or machinery.
6. Contains any other recognized health or safety hazard.

Type of CS (Tunnel, Pit, etc.)	Location	Reason(s) for Entry	Hazard Code(s)	Tools/Equipment Required for Entry	PPE Required for Entry	Special Precautions Required for Entry/Other	Classification (Permit Required//Non Permit)
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Completed By: _____ Title _____

Date: _____

APPENDIX 3 PERMIT-REQUIRED CONFINED SPACE DECISION FLOW CHART



APPENDIX 4

UWSP

CONFINED SPACE ENTRY PERMIT

NOTE: This permit must be completed prior to entry into a permit-required confined space. Permit is not valid unless all completed and signed by the entry supervisor. The permit must be posted at the job site along with a copy of the procedure for the confined space showing the identified hazards and control measures. A specific entry procedure for each permit space entry (including reclassified space entries) must be followed and used in conjunction with this permit.

CHECK TYPE OF CONFINED SPACE ENTRY BELOW:

<input type="checkbox"/> PERMIT REQUIRED SPACE AUTHORIZATION (full permit completion mandatory)
<input type="checkbox"/> PERMIT REQUIRED SPACE RECLASSIFIED TO NON-PERMIT SPACE (All hazards must be eliminated for duration of entry. List hazard elimination steps on p. 2).
<input type="checkbox"/> NON-PERMIT SPACE (Permit not required, but can be optionally used to document safe practices)

DEPT. NAME: _____ **DEPT. Phone:** _____

CONFINED SPACE NAME, NUMBER OR DESCRIPTION: _____

CONFINED SPACE LOCATION: _____

PURPOSE OF ENTRY/DESCRIPTION OF WORK TO BE DONE/EQUIPMENT TO BE WORKED ON: _____

APPROXIMATE TIME NEEDED TO COMPLETE WORK (permit duration may not exceed this time): _____

AUTHORIZED DURATION OF PERMIT. From (Date/Time): _____ **To** (Date/Time): _____

START TIME AND DATE: _____ **FINISH TIME AND DATE:** _____

LAST MATERIAL STORED IN SPACE, IF ANY: _____

NAME OF ENTRY SUPERVISOR: _____ **PHONE** _____ **CELL** _____

NAMES OF ENTRANT(S) (Attached roster if needed): _____

NAMES OF ATTENDANT(S): _____

EMERGENCY PHONE NO. 911 or _____ **NEAREST PHONE LOCATION** _____

SAMPLING INSTRUMENT INFORMATION

DIRECT READING GAS METER	PUMP AND DETECTOR TUBE	OTHER
MAKE/MODEL _____	MAKE/MODEL _____	MAKE/MODEL _____
UNIT # / SN _____	UNIT # / SN _____	UNIT # / SN _____
LAST CALIBRATED _____	LAST CALIBRATED _____	LAST CALIBRATED _____

ATMOSPHERIC TEST RESULTS

Enter values

•TEST BEFORE MECHANICAL VENTILATION, CLEANING OPERATIONS, OR ISOLATION (i.e. gas lines) ARE BEGUN AND THEN TEST AFTER VENTILATION IS STARTED, CLEANING COMPLETE, AND/OR ISOLATION SECURED. FOLLOW SPACE'S ENTRY PROCEDURE FOR DETAILS.
 •TEST INSIDE THE SPACE FROM THE EXTERIOR TO DETERMINE IF IT IS SAFE FOR ENTRY. CONTINUOUSLY MONITOR SPACE DURING ENTRY

Atmospheric Test	ACCEPTABLE RANGE	TIME:	TIME:	TIME:	TIME:	TIME:	Tester's Initials
		VENTILATION ON OFF	VENTILATION ON OFF	VENTILATION ON OFF	VENTILATION ON OFF	VENTILATION ON OFF	
Substance to be tested							
Oxygen (O ₂)	19.5%-23.5%						
Lower Explosive Limit (L.E.L.)	<10% OF LEL						
Carbon Monoxide (CO)	<35 PPM						
Hydrogen Sulfide H ₂ S	<10 PPM						
Sulfur Dioxide (SO ₂)	<2ppm						
Chlorine (CL ₂)	<0.5 ppm						
Temperature °F	TBD						
Other Toxic (specify)	Contact EHS						
Other (specify)	Contact EHS						

NOTE: Atmosphere in permit required confined spaces shall be continuously monitored during entry per UWSP policy.

Record continuous monitoring results every two (2) hours. Use additional sheets as necessary.

CLASSIFICATION SAFE ATMOSPHERE _____ HAZARDOUS ATMOSPHERE* _____ ENTRY PROHIBITED* _____

*IF LEVELS ARE NOT WITHIN ACCEPTABLE RANGE, DO NOT ENTER - CONTACT ENTRY SUPERVISOR FOR DIRECTION

AIR TESTER'S NAME (Print): _____ **AIR TESTER'S SIGNATURE:** _____

Appendix 5

UW-Stevens Point Confined Space Inventory

(UW-Stevens Point Confined Space Inventory is available in EHS Office)

Confined Space Hazard Asses

Hazard Codes:

- 1 Atmosphere is within acceptable limits.
- 2 Contains or has a potential to contain a hazardous atmosphere.
- 3 Contains a material that has the potential for engulfing an entrant (ie: grain, sand, salt)
Has an internal configuration such that an entrant could be trapped or asphyxiated by i
- 4 and tapers to a smaller cross-section.