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**CIVIL & ENVIRONMENTAL
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**CONFINED SPACE ENTRY PROGRAM
WAUSAU SCHOOL DISTRICT
MARATHON COUNTY, WI3000**

REI PROJECT #6985BG1



**COMPREHENSIVE
SERVICES WITH
PRACTICAL
SOLUTIONS**



**CONFINED SPACE ENTRY PROGRAM
WAUSAU SCHOOL DISTRICT
MARATHON COUNTY, WI**

REI PROJECT #6985BG1

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1.0 GENERAL INFORMATION

1.1 Purpose

The purpose of this Confined Space Entry Program is to prevent injury or death to Wausau School District employees and contractors by eliminating the potential for injuries and exposures while working in confined spaces.

1.2 Reference

The Wausau School District is regulated by the Wisconsin Department of Safety and Professional Services (DSPS). DSPS has adopted and revised the Occupational Safety and Health Administration (OSHA) standard entitled "Permit-Required Confined Spaces (29 CFR 1910.146)." DSPS confined space regulations are codified in SPS 332.50, 332.28, and 332.29. This program satisfies the requirement to develop a written confined space entry program as codified in OSHA 29 CFR 1910.146.

1.3 Application

This program and associated procedures apply to all Wausau School District employees and locations, and to any contractors or vendors who enter permit-required confined spaces (PRCS) while working for the Wausau School District. This written program is applicable to the following locations:

- 1) A.C. Kiefer Educational Center, 700 West Strowbridge, Wausau, WI 54401
- 2) Franklin Elementary, 1509 North 5th Street, Wausau, WI 54403
- 3) G.D. Jones Elementary, 1018 South 12th Avenue, Wausau, WI 54401
- 4) Grant Elementary, 500 No. 4th Avenue, Wausau, WI 54401
- 5) Hawthorn Hills Elementary, 1600 Kickbusch Street, Wausau, WI 54403
- 6) Hewitt-Texas Elementary, T10331 Quarry Road, Wausau, WI 54403
- 7) Horace Mann Middle School, 3101 No. 13th Street, Wausau, WI 54403

- 8) John Marshall Elementary, 1918 Lamont Street, Wausau, WI 54403
- 9) John Muir Middle School, 1400 West Stewart Avenue, Wausau, WI 54401
- 10) Lincoln Elementary, 720 So. 6th Avenue, Wausau, WI 54401
- 11) Maine Elementary, 5901 No. 44th Avenue, Wausau, WI 54401
- 12) Maintenance & Operations Building, 650 S. 7th Avenue, Wausau, WI 54401
- 13) Rib Mountain Elementary, 2701 Robin Lane, Wausau, WI 54401
- 14) Riverview Elementary, 4303 Troy Street, Wausau, WI 54403
- 15) School Forest, 2340 Hwy KK, Mosinee, WI 54455
- 16) South Mountain Elementary, 5400 Bittersweet Road, Wausau, WI 54401
- 17) Stettin Elementary, 109 No. 56th Avenue, Wausau, WI 54401
- 18) Thom Field, 1610 N. 10th St., Wausau, WI 54403
- 19) Thomas Jefferson Elementary, 500 West Randolph Street, Wausau, WI 54401
- 20) Wausau East High School, 2607 No. 18th Street, Wausau, WI 54403
- 21) Wausau West High School, 1200 W. Wausau Avenue, Wausau, WI 54401

1.4 Requirements

This written Confined Space Entry Program is available to all employees upon request, and is stored in the safety files at the Maintenance & Operations Building located at 650 S. 7th Avenue, Wausau, WI 54401. Only those employees who work at the Maintenance & Operations Building will enter or provide for confined space entries.

Wausau School District management will consult with affected employees on the implementation and future revisions of all aspects of this program. The program will be revised whenever a review of entry operations indicates the program may no longer adequately protect employees. Such revisions will take place before subsequent entries are authorized. The following circumstances will require a review of the program:

- Unauthorized entry into a PRCS occurs
- The detection of a PRCS hazard not covered by the Confined Space Entry Permit occurs
- The detection of a condition prohibited by the permit occurs

- The occurrence of an injury or near miss during entry
- A change in the use or configuration of a PRCS
- Employee concerns regarding the effectiveness of the program

No employee may enter a PRCS without proper authorization and training.

2.0 DEFINITIONS

Acceptable Entry Conditions – the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a PRCS entry can safely enter into and work within the space.

Attendant –an individual stationed outside one or more PRCSs who monitors the authorized entrants and who performs all attendant's duties assigned in the PRCS Program.

Authorized Entrant – an employee who is authorized by the employer to enter a PRCS.

Confined Space – 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 (tanks, vessels, silos, storage bins, hoppers, vaults, and pits are examples of spaces that may have limited means of entry); and
- 3) Is not designed for continuous employee occupancy.

Entry Permit – the written or printed document that is provided by the Wausau School District to allow and control entry into a PRCS.

Entry Supervisor – the person responsible for determining if acceptable entry conditions are present at a PRCS where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry.

Hazardous Atmosphere – an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness from one or more of the following causes:

- 1) Flammable gas, vapor, or mist in excess of ten (10) percent of its lower flammable limit (LFL);
- 2) Airborne combustible dust at a concentration that meets or exceeds its LFL (dust obscures vision at a distance of five (5) feet 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 permissible exposure limit (PEL) exceeds applicable thresholds; or
- 5) Any other atmospheric condition that is immediately dangerous to life and health (IDLH).

IDLH – any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects that would interfere with an individual's ability to escape unaided from a PRCS.

Non-Permit Confined Space – a confined space that does not contain or has the potential to contain any hazard capable of causing death or serious physical harm.

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

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

3.0 CONFINED SPACE EVALUATION

All confined spaces will be evaluated before entry. This evaluation will be conducted before a Confined Space Entry Permit is completed.

The OSHA decision tree found in Appendix A will be utilized for confined space evaluations. A Confined Space Evaluation Form will be completed for every PRCS, and kept in the safety files. A copy of this form is found in Appendix B. This form indicates the location, potential hazards, entry requirements, instructions for entry, anticipated signs or symptoms of exposure, rescue information, etc. Confined Space Evaluation Forms will be kept in the safety files at minimum for the duration of the confined space existence plus one (1) year.

4.0 SIGNAGE

All PRCSs will be labeled as such to inform employees of the existence, location, and the danger of the spaces. The sign will be labeled as below, or by using other similar language:

DANGER
PERMIT-REQUIRED CONFINED SPACE
DO NOT ENTER

5.0 PRCS ENTRY PROCEDURES

Before entry of a PRCS is authorized, a Confined Space Entry Permit will be prepared to document the space is safe to enter. All pre-entry preparation activities specified on the permit will be completed before entry is authorized. These preparations include, but are not limited to the following:

- 1) Isolating the PRCS
- 2) Depressurizing equipment under positive or negative pressure
- 3) Lockout/tagout of all sources of electrical, pneumatic, mechanical, chemical, thermal, or radiation hazards
- 4) Purging, inerting, flushing, or ventilating the PRCS as necessary to eliminate or control atmospheric hazards

- 5) Safety Data Sheets (SDSs) must be present at the PRCS before entry is allowed. All SDSs for all chemicals with a potential for exposure shall be physically present at the time of entry. A thorough review of each SDS will be conducted by the entry supervisor, attendants, and authorized entrants to understand the signs and symptoms of overexposure to chemicals possibly encountered before entry is allowed. In the event of overexposure, the SDS will be accompanied with the individual being sent for medical treatment.
- 6) Preparation of fall protection devices and PPE where required
- 7) Preparation of rescue equipment
- 8) If required, testing and understanding of any communication equipment will be conducted prior to entry. Communication with authorized entrants must be maintained at all times. The attendant must be able to communicate by voice, radio, or other means at all times.
- 9) Providing pedestrian, vehicle, or other barriers as necessary to isolate the area and protect entrants from external hazards

PRCS conditions must be evaluated when entry operations are conducted. Evaluations include:

- 1) Conditions in the PRCS must be tested to determine if acceptable entry conditions exist before entry is authorized to begin, except if isolation of the space is not feasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing will be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions will be continuously monitored in the area where authorized entrants are working.
- 2) The PRCS must be tested as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations. The atmosphere in the confined space within the authorized entrant's immediate area must be continuously monitored for oxygen, hydrogen sulfide, carbon monoxide, combustible gas, and any other hazardous substance which may be present in the confined space.
- 3) The order of the testing routine is critical, and the order of testing will be as follows using a calibrated meter:

- i. Test for oxygen first. Oxygen must be tested first as the flammable gas monitor requires oxygen for accurate results. Oxygen concentration must be less than or equal to 23.5%, and greater than or equal to 19.5%.
- ii. Test for flammable gases and vapors. Flammable gases must not equal or exceed 10% of the lower explosive limit (LEL).
- iii. Test for toxic gases and vapors (CO, H₂S, others not listed but may be present).
 - a. OSHA permissible exposure limit (PEL) for CO: 50 ppm
 - b. OSHA permissible exposure limit (PEL) for H₂S: 20 ppm ceiling limit

In addition to the requirements above, SPS 332.28 and 332.29 require:

- 1) The sampling device must be calibrated relative to the oxygen content of the ambient air (20.9%) at the time of sampling, and calibration must be performed where natural content of oxygen is most likely to occur (calibration must not be performed near a confined space opening).
- 2) A sampling device which has a zero set must be zeroed in a clean atmosphere before each sampling event. Calibration of a sampling device will be conducted as often as recommended by the manufacturer, but at least once every six (6) months.
- 3) If entry to a confined space is by means of a manhole, a probe must be inserted through the pick-hole of the manhole cover, or the manhole cover must be pried open on the downwind side to allow just enough room for insertion of the probe or device.
- 4) No smoking or open flames are allowed within ten (10) feet of a confined space.
- 5) If working in confined spaces in streets, the following requirements apply:
 - a. A vehicle's beacon and 4-way flashers must be activated upon approach to the entrance of the confined space.
 - b. A vehicle must be parked to permit traffic to flow in an unobstructed manner and, where possible, to provide protection to employees.

- c. A vehicle must be parked so vehicle exhaust cannot accumulate in the confined space. If not possible, the vehicle's exhaust pipe must be extended away from the confined space.

At minimum, one attendant is required outside the PRCS into which entry is authorized for the duration of entry operations. All authorized entrants will don appropriate PPE before entering a PRCS.

The PRCS will be immediately evacuated under any of the following circumstances:

- 1) If the entrant or attendant detects a prohibited condition that violates the Confined Space Entry Permit;
- 2) If the authorized entrant or attendant recognizes any warning sign or symptom of exposure to a dangerous situation (examples include overexposure to toxic gases or vapors, lack of oxygen, excessive dust, temperature, failure of ventilation systems, etc.);
- 3) If the attendant detects behavioral symptoms of hazard exposure of an authorized entrant;
- 4) If the attendant detects a situation outside the PRCS that could endanger the authorized entrant; or
- 5) If the attendant cannot effectively and safely perform all of their required duties.

6.0 PERMIT SYSTEM AND ENTRY PERMIT

Before entry of a PRCS is authorized, an entry permit will be prepared to document that the space is safe to enter. This permit will be completed using the previously completed Confined Space Evaluation Form as a guide for the space to be entered. A copy of the Confined Space Evaluation Form is located in Appendix B. A copy of the Confined Space Entry Permit is located in Appendix C. The entry supervisor is responsible for preparing the Confined Space Entry Permit.

Before entry of a PRCS, the entry supervisor will verify that all necessary precautions have been taken by signing the Confined Space Entry Permit before entry is allowed. The completed and signed Confined Space Entry Permit will be discussed with all

authorized entrants, be available at the time of entry to all authorized entrants, and be posted at the entry portal so that entrants can confirm that pre-entry preparations have been completed. The duration of the permit may not exceed the time required to complete the assigned task on the permit. All entry permits expire within eight (8) hours of signature by the entry supervisor. A new Confined Space Entry Permit is required if the space entry exceeds eight (8) hours in duration.

The entry supervisor will terminate entry and cancel the Confined Space Entry Permit when:

- 1) The recorded duration of the Confined Space Entry Permit has expired;
- 2) The entry operations covered by the Confined Space Entry Permit have been completed; or
- 3) A condition that is not allowed under the Confined Space Entry Permit arises in or near the permit space (e.g. loss of ventilation, a facility or area emergency, entrant shows signs of exposure, etc.).

Once the entry is complete, all entrants have exited the space, and the space is ready to be returned to normal service and closed off, the entry supervisor will debrief personnel involved in the entry and cancel the Confined Space Entry Permit. Any problems or issues encountered during an entry operation will be noted on the entry permit so that appropriate corrective action to the PRCS entry program can be made. The entry supervisor will then cancel the permit.

All Confined Space Entry Permits will be retained in the safety file for at least one (1) year to facilitate the review of the PRCS program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the Confined Space Entry Program can be made, and employees participating in entry operations are protected from hazards. In the event where air monitoring is used during entry, Confined Space Entry Permits shall be kept for the duration of employment plus thirty (30) years, as these permits are considered an employee exposure record by OSHA 29 CFR 1910.1020.

If any changes occur in the use and configuration of a non-permit confined space that might increase the hazards to entrants, the Wausau School District will reevaluate the space and, if necessary, reclassify the space as a PRCS.

7.0 ALTERNATE CONFINED SPACE ENTRY PROCEDURES

Alternate entry procedures can be implemented only under certain conditions. The advantages of using alternate entry procedures include:

- No Confined Space Entry Permit required
- No entry supervisor or attendants required
- No rescue service provisions

Alternate procedures for entering a PRCS can be selected only when **ALL** of the following conditions apply:

- 1) When the only hazard posed by a PRCS is an actual or potential hazardous atmosphere;
- 2) When continuous forced ventilation alone is sufficient to maintain the PRCS safe for entry;
- 3) When the work performed within the PRCS does not introduce any additional hazards, such as working with flammable liquids or toxic substances within the PRCS, hot work in or around the PRCS, etc.; and
- 4) When there is monitoring and inspection data to show that continuous forced air ventilation is sufficient to maintain the PRCS safe for entry, and no other hazards besides a potential for a hazardous atmosphere exist.

All pertinent information for alternate entry procedures will be recorded on the Alternate Confined Space Entry Procedures Authorization Form found in Appendix D. The form must be completed and made available to each affected employee before entry procedures begin.

If an initial entry of the PRCS is necessary to obtain the required monitoring and inspection data, the entry will be performed under regular PRCS procedures,

including the completion of the Confined Space Entry Permit and the presence of an attendant.

If a condition exists which makes it unsafe to remove an entrance cover, the unsafe condition will be eliminated before the cover is removed. When the entrance cover is removed and if appropriate, the opening shall be guarded by a railing, temporary cover, or other temporary barrier that will prevent accidental fall through of the opening that will protect each employee working in the space from falling objects. A danger sign will be present at the opening to the space.

Before an employee enters the space, the internal atmosphere will be tested with a calibrated meter for the following conditions, in order:

- 1) Test for oxygen first. Oxygen must be tested first as the flammable gas monitor requires oxygen for accurate results. Oxygen concentration must be less than or equal to 23.5%, and greater than or equal to 19.5%.
- 2) Test for flammable gases and vapors. Flammable gases must not equal or exceed 10% of the lower explosive limit (LEL).
- 3) Test for toxic gases and vapors (CO, H₂S, others).
 - i. OSHA permissible exposure limit (PEL) for CO: 50 ppm
 - ii. OSHA permissible exposure limit (PEL) for H₂S: 20 ppm ceiling limit

In addition to the requirements above, SPS 332.28 and 332.29 require:

- 1) The sampling device must be calibrated relative to the oxygen content of the ambient air (20.9%) at the time of sampling, and calibration must be performed where natural content of oxygen is most likely to occur (calibration must not be performed near a confined space opening).
- 2) A sampling device which has a zero set must be zeroed in a clean atmosphere before each sampling event. Calibration of a sampling device will be conducted as often as recommended by the manufacturer, but at least once every six (6) months.
- 3) If entry to a confined space is by means of a manhole, a probe must be inserted through the pick-hole of the manhole cover, or the manhole cover

must be pried open on the downwind side to allow just enough room for insertion of the probe or device.

- 4) No smoking or open flames are allowed within ten (10) feet of a confined space.
- 5) If working in confined spaces in streets, the following requirements apply:
 - a. A vehicle's beacon and 4-way flashers must be activated upon approach to the entrance of the confined space.
 - b. A vehicle must be parked to permit traffic to flow in an unobstructed manner and, where possible, to provide protection to employees.
 - c. A vehicle must be parked so vehicle exhaust cannot accumulate in the confined space. If not possible, the vehicle's exhaust pipe must be extended away from the confined space.

At no time will a hazardous atmosphere be present within a space whenever any employee is inside the space. All monitoring results will be made available to employees who enter the space.

Continuous forced air ventilation is required at all times an employee is inside the space. Continuous forced air ventilation will be used as follows:

- 1) An employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere;
- 2) The forced ventilation will be so directed as to ventilate the immediate areas where an entrant is or will be present within the space and will continue until all employees have left the space; and
- 3) The air supply for the forced ventilation will initiate from a clean source and may not increase the hazards in the space. For example, the source of clean air may not arise near exhaust points of vehicles or equipment, painting areas, welding areas, etc. If possible, clean air should be introduced to the space from outside air or a point as near as possible to outside air.

The atmosphere within the space will be continuously monitored within the authorized entrant's immediate area to ensure that the forced air ventilation is

preventing the accumulation of a hazardous atmosphere. All monitoring results will be made available to entrants of the space.

If a hazardous atmosphere is detected during entry:

- 1) Each entrant will evacuate the space immediately upon learning of the potential hazardous atmosphere;
- 2) The space will be evaluated to determine how the hazardous atmosphere developed; and
- 3) Measures will be implemented to protect employees from the hazardous atmosphere before any subsequent entry of the space takes place.

8.0 PRCS RECLASSIFICATION

If a PRCS poses no actual or potential atmospheric hazards, and if all other hazards within the space are eliminated without entry into the space, a PRCS may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated. For example, if the only hazard in a space is a mechanical fan, the mechanical fan may be locked out and the space may be reclassified as a non-permit confined space for as long as the fan remains locked out. The space shall still have warning signage displayed at all times since the space is considered a PRCS under normal conditions.

Reclassification of a PRCS to a non-permit confined space requires a Permit Space Reclassification Form. A copy of this form is located in Appendix E. The form is used to document that all hazards in a PRCS have been eliminated. The form contains the date, location, and the signature of the person certifying that all hazards of the space have been eliminated. The certification will be made available to each employee entering the space.

If it is necessary to enter the PRCS to eliminate hazards, the entry will be performed under the regular PRCS entry procedures. If consequent testing and inspection during the entry demonstrate that the hazards within the PRCS have been eliminated, the PRCS may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

If hazards arise within the PRCS that has been reclassified as a non-permit confined space, each employee in the space will immediately exit the space. The space will be reevaluated to determine whether it must be reclassified as a PRCS. When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, the space will be reevaluated, and if necessary be reclassified as a PRCS.

9.0 RESCUE OPERATIONS

Before entry operations begin, the Entry Supervisor will verify that rescue services are available and the means for summoning them are operable. Rescue operations may be conducted by facility employees or outside services depending on the circumstance. The rescue provisions are outlined on the corresponding entry permit.

9.1 Rescue Service Designation

The Wausau School District may designate rescue and emergency services to respond to PRCS emergencies. Fire Departments and other rescue services are selected and evaluated for the following:

- Ability to respond to a rescue summons in a timely manner, considering the hazards identified.
 - A rescue team will be identified at each PRCS location at the facility and in the field.
 - Depending on the hazards encountered, a “timely manner” varies for the hazards encountered. The rescue team must be able to reach the victim within a time frame that is appropriate for the hazards identified in the PRCS.
- Abilities in rescue-related tasks and equipment to function appropriately while rescuing entrants from the particular PRCS. The rescue team must be equipped for and proficient in performing the rescue services.
- The rescue team will be informed of the hazards they may confront when called upon to perform rescue at the site.

- The rescue team will be provided with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

9.2 Employer Rescue Services

The Wausau School District may enact employer rescue services. If employer rescue services are initiated, the Wausau School District shall take the following measures:

- 1) Affected employees will be provided with appropriate PPE (at no cost to the employee) needed to conduct permit rescues safely, and train affected employees so they are proficient in the use of associated PPE;
- 2) Train affected employees to perform assigned rescue duties required to establish proficiency as an authorized entrant, as seen in Section 11.1;
- 3) Ensure that the rescue team practices making PRCs rescues at least annually, by means of simulated rescues in which the team rescues dummies, manikins, or actual persons from the actual PRCs or representative PRCs; and
- 4) Train affected employees in basic first aid and CPR.

9.3 Non-Entry Rescue Operations

Retrieval systems or methods will be used whenever an authorized entrant enters a PRC. Retrieval systems will meet the following requirements:

- 1) 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. Wristlets may be used in lieu of a harness where a full body harness is infeasible or creates a greater hazard, and wristlets are the safest and most effective alternative.
- 2) 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 it is evident that rescue is necessary. A mechanical device (e.g. tripod, etc.) shall be available to retrieve personnel from a vertical type PRC more than five (5) feet deep.

Attendants may enter a PRCS for rescue operations only if they have been properly trained and equipped for rescue operations, and if the following criteria are met:

- 1) The attendant has been relieved by another attendant;
- 2) The PRCS hazards which require a rescue have been eliminated as not to jeopardize the health of another individual; and
- 3) Appropriate retrieval gear is available for the attendant entering to perform a rescue.

9.4 Rescue Procedures

If in the event of a PRCS entry the attendant becomes aware of an entrant needing assistance in escaping from the PRCS, the attendant will:

- 1) Summon the rescue team, any first responders, and call 911 for medical service; and
- 2) Begin non-entry rescue procedures.
- 3) If an entrant is injured by being exposed to a chemical or vapor, the SDS shall be made available to the medical facility treating the victim.

10.0 TRAINING

All employees who are involved with PRCS entries will receive training to acquire the understanding, knowledge, and skills necessary for the safe performance of their job duties. Training will be provided for each employee when:

- Before the employee is first assigned PRCS duties;
- Before there is a change in assigned PRCS duties;
- Whenever there is a change in PRCS operations that present a hazard about which an employee has not been previously trained;
- Whenever there are deviations from the PRCS entry procedures; or
- Whenever inadequacies in the employee's knowledge of PRCS entry procedures is evident.

Training will establish employee proficiency in their duties as outlined in Sections 11.1, 11.2, and 11.3, and will cover new or revised procedures as necessary. Training certification will include the employee's name and dates of training. Trainers will sign the certification to ensure training requirements have been met. Training records will be kept for the duration of employment, or kept until more recent training is conducted.

SPS 332.28 requires all authorized entrants and attendants to receive training in basic first aid and CPR.

11.0 DUTIES

11.1 Authorized Entrants

The Wausau School District will ensure that all authorized entrants are trained in their duties. All authorized entrants will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of exposure.
- Properly use the following equipment if applicable (provided at no cost to employees):
 - Testing and monitoring equipment
 - Ventilating equipment
 - Communication devices
 - PPE
 - Lighting equipment
 - Barriers and shields
 - Equipment for safe egress and ingress (e.g. ladders, etc.)
 - Rescue and emergency equipment
 - Other
- Communicate with the attendant as necessary to enable the attendant to monitor authorized entrant status and to enable the attendant to alert entrants of the need to evacuate a confined space.
- Alert the attendant whenever:

- The authorized entrant recognizes any warning sign or symptom of exposure to a hazard.
- The authorized entrant detects a prohibited condition.
- Exit from the confined space as quickly and safely as possible whenever:
 - An order to evacuate is given by the attendant or entry supervisor.
 - The entrant recognizes any warning sign or symptom of exposure to a hazard.
 - The entrant detects a prohibited condition.
 - An evacuation alarm is activated.

11.2 Attendants

The Wausau School District will ensure that all attendants are trained in their duties. All attendants will:

- Know the hazards that may be encountered during entry, including information on the mode, signs or symptoms, and consequences of exposure.
- Be aware of possible behavioral effects of hazard exposure in authorized entrants.
- Continuously maintain an accurate count of authorized entrants in the PRCS, and ensure that the entrant names on the Confined Space Entry Permit accurately identify who is in the PRCS.
- Remain outside the PRCS during entry operations until relieved by another attendant.
- Communicate with authorized entrants as necessary to monitor entrant status and to alert authorized entrants of the need to evacuate the space.
- Monitor activities inside and outside the space to determine if it is safe for authorized entrants to remain in the space, and order the authorized entrants to evacuate the PRCS immediately under any of the following conditions:
 - If the attendant detects a prohibited condition.
 - If the attendant detects the behavioral effects of hazard exposure in an authorized entrant.
 - If the attendant detects a situation outside the space that could endanger the authorized entrants.

- If the attendant cannot effectively and safely perform their duties.
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from the PRCS.
- Take the following actions when unauthorized persons approach or enter a PRCS while entry is underway:
 - Warn the unauthorized persons that they must stay away from the PRCS.
 - Advise the unauthorized persons that they must exit immediately if they have entered the PRCS.
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the PRCS.
- Perform non-entry rescues.
- Perform no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

11.3 Entry Supervisors

The Wausau School District will ensure that all entry supervisors are trained in their duties. All entry supervisors will:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
- Terminate the entry and cancel the permit as required.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized individuals who enter or who attempt to enter the PRCS during entry operations.
- Determine, whenever responsibility for a PRCS entry operation is transferred and at intervals dictated by the hazards and operations performed within the

PRCS that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

12.0 CONTRACTORS

When contractors work for the Wausau School District and perform work that involves a PRCS entry, the Wausau School District will:

- 1) Inform the contractor that the workplace contains PRCSs, and that PRCS entry is allowed only through compliance with this program;
- 2) Apprise the contractor of the elements of this program, including the hazards identified that make the spaces a PRCS;
- 3) Apprise the contractor of any experience the Wausau School District has with PRCSs;
- 4) Apprise the contractor of any precautions or procedures that the Wausau School District has implemented for the protection of employees in or near PRCSs where contractor personnel will be working;
- 5) Coordinate entry operations with the contractor when both Wausau School District employees and contractor employees will be working in or near a PRCS; and
- 6) Debrief the contractor at the conclusion of the entry operations regarding the program followed and regarding any hazards confronted or created in the PRCS during entry operations.

Each contractor shall:

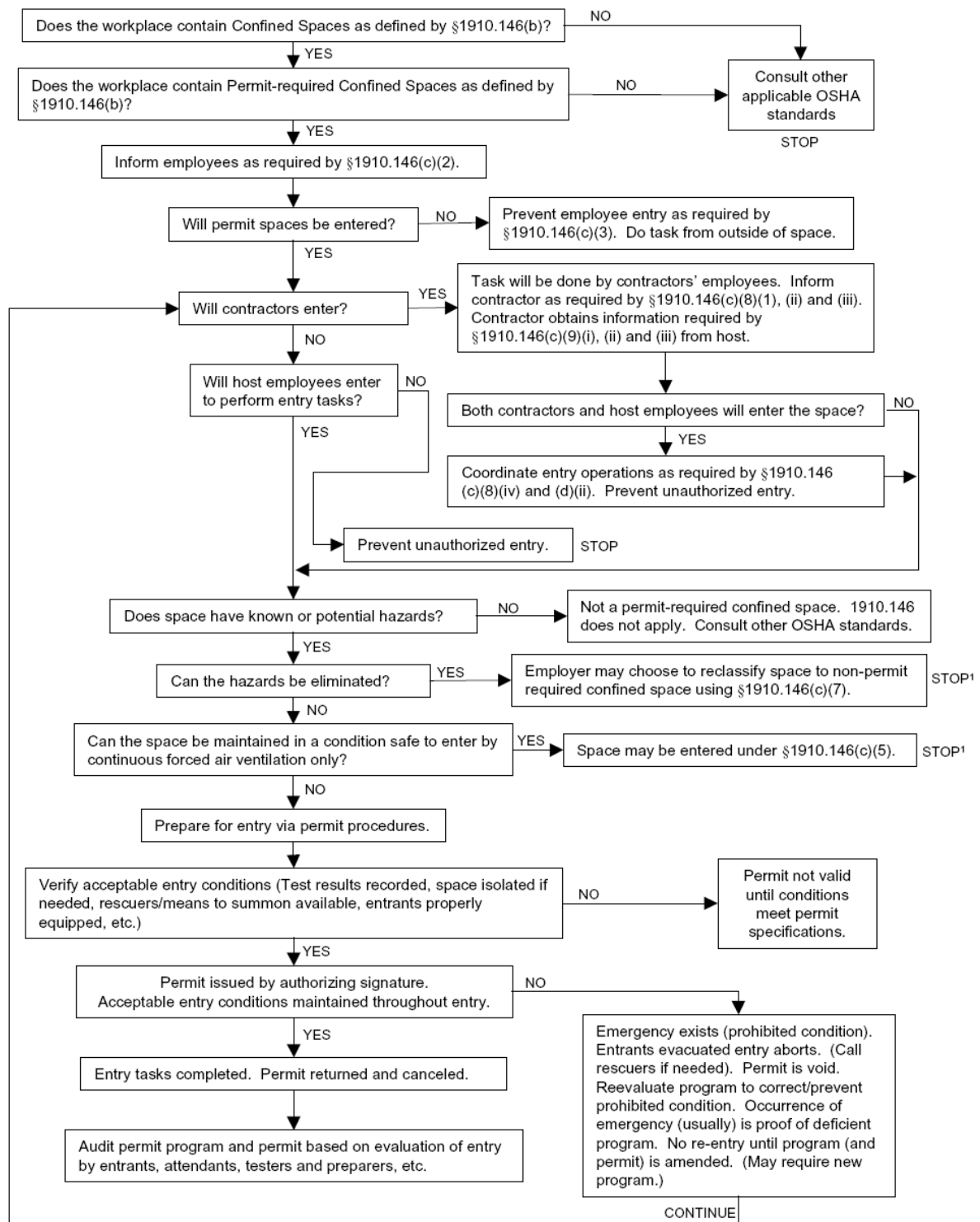
- 1) Obtain any available information regarding PRCS hazards and entry operations from the Wausau School District;
- 2) Coordinate entry operations with the Wausau School District when both Wausau School District employees and contractor employees will be working in or near PRCSs; and
- 3) Inform the Wausau School District of the permit space program that the contractor will follow and of any hazards confronted or created in the PRCS, either through debriefing or during entry operations.

APPENDIX A

PERMIT-REQUIRED CONFINED SPACE DECISION FLOWCHART



Appendix A, Permit-required Confined Space Decision Flow Chart



¹Spaces may have to be evacuated and re-evaluated if hazards arise during entry

APPENDIX B

CONFINED SPACE EVALUATION FORM



Confined Space Evaluation Form

Confined Space Identification

Date: _____

Confined Space Location: _____

Purpose of Entry: _____

Previous materials in space: _____

Potential Hazards of the Confined Space

Atmospheric Hazards:

Yes	NA	Flammable gas, vapor or mist <10% LEL:
Yes	NA	Air combustible dust ≥ LEL (dust obscures vision at 5 feet)
Yes	NA	Atmospheric oxygen < 19.5% or > 23.5%

Yes	NA	Atmospheric condition over PEL:
Yes	NA	Other condition IDLH
Yes	NA	Poor ventilation
Yes	NA	Migrating vapors/gases

Chemical Hazards:

Yes	NA	Unknown contents
Yes	NA	Corrosive materials

Yes	NA	Chemical Reactivity
Yes	NA	Sludge/residue
Yes	NA	Chemical contact

Engulfment Hazards:

Yes	NA	Materials that fill or plug respiratory tract:
-----	----	---

Yes	NA	Materials that exert pressure, strangle, constrict or crush
-----	----	--

Configuration Hazards:

Yes	NA	Inadequate light
Yes	NA	Difficult to exit
Yes	NA	Heat/cold
Yes	NA	Falling objects:
Yes	NA	Poor communications
Yes	NA	Equipment startup:

Yes	NA	Electrical shock
Yes	NA	Poor visibility
Yes	NA	Hot/cold contact
Yes	NA	Pressure/vacuum
Yes	NA	Sharp objects
Yes	NA	Sloping surfaces
Yes	NA	Taper to smaller cross section

External Hazards:

Yes	NA	Weather
Yes	NA	Slip/trip surfaces

Yes	NA	
Yes	NA	

Hazards Being Introduced to Space:

Yes	NA	Toxic chemical:	Yes	NA	Mechanical hazard:
Yes	NA	Atmospheric contaminant:	Yes	NA	
Yes	NA	Radiation hazard:			
Yes	NA	Electrical hazard:			

Control of the Potential Hazards

Require Before Entry:

Yes	NA	Isolate chemical, utility and outlet lines			<input type="checkbox"/> LEL
					<input type="checkbox"/> toxic
Yes	NA	Purge the space with:			<input type="checkbox"/> continuous monitoring required
		<input type="checkbox"/> air			
		<input type="checkbox"/> water/steam			
		<input type="checkbox"/> inert			
Yes	NA	Lock out and Try out:	Yes	NA	Guard sharp edges and moving parts
		<input type="checkbox"/> physical/mechanical	Yes	NA	Ventilation:
		<input type="checkbox"/> electrical			<input type="checkbox"/> mechanical forced
		<input type="checkbox"/> radiation			<input type="checkbox"/> natural ventilation only
Yes	NA	Minimize slipping hazards	Yes	NA	Review the MSDS for (chemical(s) ?)
Yes	NA	Conduct atmospheric tests:			
		<input type="checkbox"/> oxygen			
		<input type="checkbox"/> flammables – LEL			
		<input type="checkbox"/> Carbon monoxide			
		<input type="checkbox"/> Hydrogen Sulfide			

Required During Entry:

Protective Equipment :

Yes	NA	Hearing protection	Yes	NA	Non-sparking tools
Yes	NA	Special clothing:	Yes	NA	Explosion proof lighting
			Yes	NA	Gloves for hazards
Yes	NA	Splash goggles	Yes	NA	Boots for hazards
Yes	NA	Face shield	Yes	NA	Additional PPE:
Yes	NA	Respirator:			
		<input type="checkbox"/> SCBA	Yes	NA	Emergency eye wash
		<input type="checkbox"/> Air-line w/ escape bottle	Yes	NA	First aid kit
		<input type="checkbox"/> PAPR/air purifying cartridge	Yes	NA	Safety harness:
					<input type="checkbox"/> Full body harness
Yes	NA	Head protection	Yes	NA	Lifeline
Yes	NA	Fire extinguisher			

Communications:

Yes	NA	Portable radio	Yes	NA	Unaided voice
Yes	NA	Aided Voice	Yes	NA	Tug line
Yes	NA	Visual communication	Yes	NA	Other: (specify)

Ventilation:

Yes	NA	Conduct atmospheric tests: <input type="checkbox"/> Oxygen	<input type="checkbox"/> LEL	<input type="checkbox"/> CO	<input type="checkbox"/> Hydrogen Sulfide
		<input type="checkbox"/> continuous monitoring			
		<input type="checkbox"/> continuous forced mechanical ventilation			

Required for Rescue/First Aid:

Yes	NA	Retrieval device/winch (vertical, horizontal, etc.)	
Yes	NA	Respiratory protection: <input type="checkbox"/> SCBA	<input type="checkbox"/> Air-line w/ escape bottle
		<input type="checkbox"/> PAPR	<input type="checkbox"/> Air purifying w/ cartridge
Yes	NA	Battery lighting	
Yes	NA	First responder available	
Yes	NA	First Aid/Jump kit	
Yes	NA	911 communication capabilities	

Special Entry Instructions

Anticipated Signs and Symptoms

Yes	NA	Irritation of eyes, nose and throat	Yes	NA	Heat rash
Yes	NA	Tearing	Yes	NA	Fatigue and/or weakness
Yes	NA	Changes in complexion or skin	Yes	NA	Sneezing
Yes	NA	Breathing difficulties	Yes	NA	Tightness in the chest
Yes	NA	Coughing	Yes	NA	Drooling
Yes	NA	CNS depression, coordination difficulties	Yes	NA	Diarrhea
Yes	NA	Confusion	Yes	NA	Slurred speech
Yes	NA	Incoherent speech	Yes	NA	Irritability
Yes	NA	Dizziness, nausea, light-headed	Yes	NA	Headaches
Yes	NA	Clammy skin	Yes	NA	Profuse sweating
Yes	NA	Weak or strong rapid pulse	Yes	NA	Fainting
			Yes	NA	Convulsions
			Yes	NA	Unconsciousness, coma

Rescue Information

Important numbers:

Rescue: _____

Plant: _____

Other: _____

Special Rescue Instructions

Based upon the above evaluation, it is anticipated that this space will be classified as:

- ☐ Multiple hazards permit-required space: requires full compliance with **Permit Space Program** including the completion of a permit and the presence of an attendant.
- ☐ Atmospheric hazard permit-required space that can be controlled by forced ventilation alone: no permit or attendant required. Note: This classification allows alternate entry procedures.
- ☐ Non-permit required space: no potential or actual atmospheric hazards or all hazards within the space have been eliminated – no permit or attendant required. Note: This classification requires special certification.

Evaluation performed by:

(Print name)

(Print title)

(Sign name)

APPENDIX C

CONFINED SPACE ENTRY PERMIT



Confined Space Entry Permit

Division: _____ Dept. _____ Date: _____

Permit #: _____ Space to be entered: _____

Purpose of Entry: _____

Permit Duration Time: _____ To: _____ Permit Expires: Time: _____ (8-hour maximum)

Entry Supervisor: _____ Entry Time: _____

Attendant(s): _____ Entrants: _____

Emergency Service: _____ **Rescue & First Responder Page #:** _____ **Medical Service: 9-911**

Equipment Required for Entry & Work

Rescue: _____

Testing: _____

Communication: _____

Communication Procedures: _____

PPE: _____

Respirator: _____

Other Equipment: _____

Space Hazard Identification:

Y	N	Oxygen deficiency (less than 19.5%)	Y	N	Oxygen enrichment(greater than 23.5%)
Y	N	Flammable gases or vapors greater than 10% of LEL	Y	N	Airborne dust greater than LEL (dust obscures vision at 5 feet)
Y	N	Toxic or flammable gases or vapors greater than the PEL	Y	N	Mechanical Hazards
Y	N	Electrical shock/burn	Y	N	Falls, falling objects
Y	N	Engulfment	Y	N	Materials harmful to skin
Y	N	Other: _____	Y	N	Configuration hazard

Entry Preparation: Indicate steps taken to eliminate or control the identified hazards.

Y	N	Notify affected dept.'s of service interruption	Y	N	Isolation method: Lockout/Tagout
Y	N	Forced ventilation	Y	N	Purge with inert gas
Y	N	Clean the space	Y	N	Erect barriers (if necessary)
Y	N	Atmosphere tests: O₂ Flammable gases/vapors			CO H₂S Other
Y	N	Pre-entry hazard briefing and MSDS review	Y	N	Fall protection
Y	N	Notify contractors	Y	N	Falling objects, people (barriers, etc.)
Y	N	Hot work permit	Y	N	Rescue & communication equipment
Y	N	Other: _____			

Air Monitoring Results:

Air Monitoring Equipment used: _____ Calibration date: _____

Time: (indicate am/pm) _____

Oxygen minimum: $\geq 19.5\%$ _____

Oxygen maximum: $\leq 23.5\%$ _____

Flammability $\leq 10\%$ LEL _____

CO ≤ 50 ppm _____

H₂S ≤ 20 ppm _____

Authorization of Entry Supervisor:

Printed Name

Signature

Date

Time

Additional Instructions or Permits? Y N If yes, attach to entry permit.

Notes/Issues: _____

APPENDIX D

ALTERNATE CONFINED SPACE ENTRY PROCEDURES AUTHORIZATION FORM



Alternate Confined Space Entry Procedures Authorization Form

A permit space may be entered using alternative entry procedures when all of the following apply: (a) when the **only** hazard posed by a permit space is an actual or potential hazardous atmosphere, (b) when continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry, (c) when the work to be performed within the space does not introduce any additional hazards (e.g., hazardous quantities of flammable or toxic substances and hot work are prohibited), and (d) when there is monitoring and inspection data to support (a) and (b).

These alternate procedures are valid as long as the atmospheric hazard is controlled by forced air ventilation alone, and continuous air monitoring occurs. If additional hazards arise within the space, or forced air ventilation is inadequate to control the atmospheric hazard, employees in the space must exit immediately and the space must be reevaluated.

Confined Space Identification

Date: _____

Confined Space Location: _____

Purpose of Entry: _____

Previous materials in space: _____

Pre-Entry Hazard Evaluation (Any answer of "No" disqualifies Alternate Entry Procedures and the entry must occur with full permit)

- | | | |
|---|-----|----|
| 1. The only actual or potential hazard within the confined space is atmospheric? | Yes | No |
| 2. Continuous forced air ventilation alone is sufficient to eliminate the atmospheric hazard? | Yes | No |
| 3. Monitoring and inspections verify that no other hazards exist? | Yes | No |
| 4. Conditions that make it unsafe to remove entrance covers have been eliminated prior to removing the cover? | Yes | No |
| 5. Entrances and openings are guarded to protect employees from falls and foreign objects? | Yes | No |
| 6. Work to be performed within the space will not introduce additional hazards? | Yes | No |

Steps Necessary to Identify Hazards That Develop During Entry

Atmospheric Monitoring Results

Agent	Limit	Test Results	Test time	Tester's initials
Oxygen (O ₂)	19.5-23.5%			
Flammables (LEL)	10%			
Carbon Monoxide (CO)	50 ppm			
Hydrogen Sulfide (H ₂ S)	20 ppm			
Other				

I certify that all hazards except atmospheric have been eliminated and that the atmospheric hazards can be controlled by continuous forced ventilation alone, and hereby authorize that alternate confined space entry procedures can be utilized.

Print Name & Title: _____

Signature: _____

APPENDIX E

PERMIT SPACE RECLASSIFICATION FORM



Permit Space Reclassification Form

A permit space may be reclassified as a non-permit confined space when (a) the space poses no actual or potential atmospheric hazards, and (b) all hazards within the space are eliminated without entry into the space.

This reclassification is only valid as long as the space remains hazard free. If hazards arise within a non-permit space, employees in the space must exit immediately and the space must be reevaluated.

Once the space is returned to normal service the non-permit classification is invalid.

Confined Space Identification

Date: _____

Confined Space Location: _____

Purpose of Entry: _____

Previous materials in space: _____

Pre-Entry Hazard Elimination Measures Taken

- | | | |
|---|-----|----|
| 1. Contents of the space removed | Yes | NA |
| 2. Chemical, utility and outlet lines isolated | Yes | NA |
| 3. Lock out and try out procedures implemented | Yes | NA |
| 4. All slip and trip hazards eliminated | Yes | NA |
| 5. Atmospheric testing (oxygen, flammable vapors/gases and toxic concentrations) conducted and documented below | Yes | NA |
| 6. Manway and access opening obstruction hazards eliminated | Yes | NA |
| 7. Sharp edges removed or guarded | Yes | NA |
| 8. Physical barriers are barricades installed | Yes | NA |

Additional Hazard Elimination Measures Taken

Steps Necessary to Identify Hazards That Develop During Entry

Atmospheric Monitoring Results

Agent	Limit	Test Results	Test time	Tester's initials
Oxygen (O ₂)	19.5-23.5%			
Flammables (LEL)	10%			
Carbon Monoxide (CO)	50 ppm			
Hydrogen Sulfide (H ₂ S)	20 ppm			
Other				

I certify that all hazards have been eliminated and that there is no possibility of any hazards occurring in the confined space and hereby reclassify the confined space, as a non-permit required confined space.

Print Name & Title: _____

Signature: _____