**Section 3.6: Confined Space Code of Practice**

**CONFINED SPACE CODE OF PRACTICE**

*The information in this document is provided “as is” without warranty of any kind, either expressed or implied, and is subject to change without notice. The school division will not be liable for damages whether direct or indirect, resulting from, or related to, the use of information contained herein.*

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**Purpose**

*Note - The* ***Confined Space*** *title referred to throughout the Code of Practice are identified by local regulations as follows.*

The purpose of the Confined Space Code of Practice is to ensure the safety of the workers required to enter and conduct work in confined spaces. This code of practice describes the procedure to be followed to allow workers to safely perform work in confined spaces and ensures that workers are educated and receive the proper training to effectively protect themselves against hazards associated with confined space and work conducted in confined spaces.

The school division Confined Space Code of Practice shall comply with the OHS Legislation for the Province Saskatchewan. A copy of the applicable provincial OHS Legislation shall be made available to all employees at the workplace.

**Roles and Responsibilities**

**EMPLOYER**

* School division staff have completed an inventory of all confined spaces in all workplaces and must ensure that they are always clearly signed at all times.
* Ensure that there is a safe entrance to and exit from all accessible parts of the confined space.
* Ensure that each point of access to the confined space is secured against entry or identified by a sign or other effective means which indicates the nature of the hazard and the prohibition of entry, and that workers are instructed not to enter.
* Ensure the completion of a job hazard assessment (JHA) for each confined space and work activity to be conducted.
* Ensure that the Confined Space Code of Practice is available, understood and implemented.
* Ensure persons assigned duties or responsibilities related to entry into a confined space are trained, informed of the hazards of the space and the precautions identified.

**SUPERVISORS/MANAGERS/FOREMAN**

* Will notify worker who is required to enter the confined space verifying that the confined space is not hazardous.
* Arrange for a method of communication with a worker on entry to and exit from the confined space and at appropriate intervals while the worker is in the confined space.
* Prepare a procedure for the removal of a worker who has become injured or incapacitated while in the confined space.
* Ensure that the ventilation in the confined space is adequate to maintain safe atmospheric conditions.
* Conduct periodic audits on the confined space program to ensure compliance with legislation and the code of practice.
* Enforce school division operations policy and procedures and that work is performed safely.
* Ensure that all hazards are eliminated or minimized.
* Ensure that each point of access to the confined space is secured against entry or identified by a sign or other effective means which indicates the nature of the hazard and the prohibition of entry, and that workers are instructed not to enter.
* Train workers in recognizing confined space hazards and the use of this code of practice.
* Maintain records of employee training and equipment issues used at school division job sites.
* Investigate and document all incidents.
* Ensure workers are aware of confined space hazards.
* Ensure workers are properly trained and experienced.
* Ensure pre-entry testing and inspection is completed.
* Ensure precautions identified in the procedures are followed.
* Ensure only authorized workers enter a confined space.

**WORKERS**

* Enter or work inside a confined space only after a competent person, appointed by the employer, verifies the environment is not hazardous and appropriate controls are taken.
* Be aware of the hazards and follow the procedures set out in the confined space entry plan.
* Use communication methods established by the employer to inform the tending worker any changes while working inside the confined space.
* Where required, wear a full body harness attached to a manned lifeline.
* Where required, use appropriate respiratory protective equipment if the oxygen level is not within the acceptable limits.

**TENDING WORKER/ATTENDANT**

* The attendant is qualified in confined spaces rescue procedures and will be available immediately outside the confined space to provide emergency assistance if needed.
* The attendant should be familiar with the structural design of the confined space.
* The attendant is in constant communication with the worker inside the confined space.
* Have an alarm for calling for help.
* If a situation arises where the worker does not leave or is unable to leave the confined space, rescue procedures should begin immediately.
* Have all required rescue equipment immediately available and be trained in its use.
* Hold a basic first aid certificate and CPR.

**CONTRACTORS**

* Provide a copy of their Confined Space Code of Practice along with proof of training for review by school division Operations Staff.
* Where the school division’s Confined Space Code of Practice requirements exceed those of the contractors, the school division’s requirements shall take precedence.

**TRAINING**

For all confined spaces on school division sites/locations/areas, specialized training and development of specific work procedures are necessary.

Confined space training will be provided by a certified 3rd party. The training must include the following:

* Description and explanation of permit forms.
* Identification and description of required equipment and PPE.
* Duties and responsibilities of all members of a confined space entry team; emergency rescue procedures.
* Evaluation of hazards, identification, testing, and control measures.

Specialized re-training must be completed if employment responsibilities change, if legislation changes, if a new type of confined space is created, if new equipment is to be used or if a new type of hazard is introduced or identified.

The school division is responsible for keeping and maintaining records of training. Workers responding to a confined space emergency must be certified in first aid, trained in the use of appropriate emergency response equipment, and procedures appropriate to the confined space.

Contractors working on any school division site in confined spaces must receive an orientation, as is required for school division workers. All contractors are required to provide proof of current certification for working in confined spaces.

**Compliance**

Constant awareness of and respect for confined space hazards, as well as compliance with all safety rules, are considered conditions of employment with the school division.

Management and supervisors reserve the right to issue disciplinary warnings to workers, up to and including termination, for failure to follow the guidelines of this Code of Practice.

**Characteristics of Confined Spaces**

Confined Space (Saskatchewan)

(a) “confined space” means an enclosed or partially enclosed space that:

(i) is not primarily designed or intended for human occupancy, except for the purpose of performing work.

(ii) has restricted means of entrance and exit.

Examples of confined spaces may include (but are not limited to):

• Crawlspaces

• Ducts

• Excavations

• Exchangers

• Piping Systems

• Sewers

• Some components of major equipment

• Tanks

• Utility manholes

• Vessels

**Identification and Inventory**

The school division must identify and maintain an inventory of all confined spaces that workers may be required to enter for planned or unplanned maintenance or in an emergency.

The **Confined Space Decision Flow Chart,** associated with this Code of Practice, may be a used to determine if an area meets the definition and characteristics of a confined space.

Each Site/Location/Area will:

* Develop and maintain the confined space inventory.
* Use the Confined Space Decision Flow Chart to determine if an area meets the definition and characteristics of a confined space.
* Complete the Confined Space Inventory Assessment form and forward to supervisor.
* A copy of the Confined & Restricted Space Inventory Assessment form can be found in association with this Code of Practice.

**Hazard Assessment should include:**

If a worker will enter a confined space to work, a competent person(s) will be assigned to prepare a written, dated document which will:

1. Identify existing or potential hazards to which the worker is likely to be exposed while in the confined space.
2. Specify who will perform the inspections identified.
3. Specify the safety and personal protective equipment required to perform the work.
4. Identify the personal protective equipment and emergency equipment to be used by a worker.
5. Who undertakes rescue operations in the event of an accident or other emergency.
6. Identify emergency evacuation and communication requirements.
7. Where reasonably practical, affected workers shall be involved in the hazard assessment and in the control or elimination of the hazards identified.

**PRE-ENTRY PROCEDURES/ENTRY PROCEDURES**

**STEP I. COMPLETE THE CONFINED SPACE ENTRY PERMIT**

All Confined spaces at school division facilities require a Confined Space Permit to be completed prior to entry. A person must not enter a confined space without a valid entry permit. It will contain at a minimum:

* Names of the tending workers plus each worker approved for entry.
* The location of the confined space.
* The time during which an entry permit is valid.
* Description of the work being done in the confined space.
* The Code of Practice requirements for entering, being in, and leaving a confined space.
* Ensures all required documents are collected and maintained for retention.
* Reference to the emergency response plan and its posting.
* An employer must ensure that, before a worker enters a confined space, an entry permit is properly completed, signed by a competent person and a copy kept readily available at the confined space location.

**STEP II ISOLATION**

Workers within a confined space must be protected against the release of hazardous substances or energy that could harm them.

Examples include:

* Stored Energy/ Pressure (boiler, water heater, expansion tank, air compressor)
* Electrical (motors, pumps, electrical panels)
* Gravity (anything overhead)

A worker is not permitted to enter a confined space unless adequate precautions are in place to protect a worker from drowning, engulfment, or entrapment.

Examples of appropriate controls include: (check language of the list below)

* double blocking and bleeding;
* locking out sources of energy (lock out-tag out);
* de-energizing equipment;
* immobilizing or disconnecting all mechanical linkages.

**STEP III EMERGENCY RESPONSE**

The school division must ensure that a worker does not enter or remain in a confined space unless an effective rescue can be carried out.

A worker will not enter a confined space unless an effective rescue can be carried out and a review of emergency response procedures has been conducted. There are emergency response procedures at each risk rating level and they will be determined at the time of the field level risk assessment review. Build into JSA.

Confined space entries require an emergency response plan at a minimum.

Effective 2-way communication for all workers involved.

* Emergency contact names and phone numbers (e.g., 911, supervisor, etc.)
* Appropriate rescue and first aid equipment; someone trained in first aid/CPR.
* Back-up tending worker
* Personal protective equipment

As part of the hazard assessment, the emergency response plan must include emergency response procedures and evacuation procedures in the case of an incident, oxygen deficiency or enrichment, or a change in the amount of hazardous substances in the atmosphere.

If in the course of a permit space entry, a tending worker/attendant becomes aware that a worker needs assistance in escaping from permit space hazards, the attendant shall:

* Summon rescue and other emergency services.
* Begin non-entry rescue procedures.
* Rescue team members may enter a permit space to attempt a rescue only if they have been trained and equipped for rescue operations, are wearing all appropriate protective equipment and if they have been relieved by another tending worker/attendant.
* If an injured worker is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information shall be made available to the medical facility treating the exposed worker.

**STEP IV TENDING WORKER/COMMUNICATION**

A tending worker and back-up tending worker in the case of an emergency are required for all confined space entry. The worker inside of any type of confined space or must have a suitable system for summoning assistance.

A worker trained in the evacuation procedures, outlined in the emergency response plan, must be present near the entrance to the confined space.

**General Safety and Personal Protective Equipment**

The school division will ensure that:

* + If a lifeline is required in a confined space, the lifeline will not create any additional hazards.
	+ The safety equipment and personal protective equipment (PPE) required under the Regulations, is available to workers entering a confined space.
	+ A worker who enters, occupies, or leaves a confined space uses the safety equipment and PPE.
	+ The PPE and emergency equipment required under the applicable regulations, is available to workers undertaking rescue operations in a confined space.
	+ Equipment appropriate to the confined space, including PPE is available to perform a timely rescue
	+ A communication system is established that is readily available to workers in a confined space and is appropriate to the hazards.

All PPE and emergency equipment required for use in a confined space must be inspected by a trained person before workers enter the confined space or restricted space to ensure the equipment is in good working order. Written records of the inspections will be retained by the school division.

**Unauthorized Entry**

There is no access permitted by any school division employee at any time that is not trained and authorized to enter a confined space in any school division workplace.

No school division Facilities staff member or contractor may enter a confined space until a risk rating for the confined space has been assigned by a supervisor and appropriate confined space training has been received.

**Traffic Hazards**

Workers in or around a confined space must be protected from hazards created by traffic.

**Entry and Exit**

A safe means of entry and exit must be available to all workers required to work in a confined space and to rescue personnel attending to the workers.

**Retaining Records**

An employer must ensure that all records with respect to entry and work in a confined space, including entry permits, safe entry tags and entry/exit logs are retained for not less than:

a) 1 year if no incident or unplanned event occurred during the entry; or

b) 2 years if an incident or unplanned event occurred during the entry.

**HOT WORK**

**Hot Work**

Hot work cannot be done in the vicinity of or within a confined space where:

* A flammable substance is or may be in the atmosphere of the work area.
* A flammable substance is or may be stored, handled, processed, or used in the location.
* The hot work is on or in an installation or item of equipment that contains a flammable substance or its residue.
* The hot work is on a vessel that contains residue that may release a flammable gas or vapor when exposed to heat.
* No hot work will begin until procedures have been implemented to ensure continuous safe performance of the hot work and testing shows that the atmosphere does not contain:
	+ A flammable substance, in a mixture with air, in an amount exceeding 20% of that substance’s lower explosive limit for gas or vapors.
	+ The minimum ignitable concentration for dust.

Testing must be repeated at regular intervals appropriate to the hazard associated with the work being performed.

**Changes and Review**

The program will be reviewed annually and after every incident. Affected employees shall be notified of all procedural changes and be re-trained if necessary.

A copy of this Code of Practice, Confined Space Inventory and Confined Space Entry Permits shall be maintained and scanned and emailed or sent in by inter-office mail to (Division specific) at the end of each month.

Scanned copies would also allow each Foreman to retain a copy for their own records as well.

**LEGISLATION**

The Confined Space Entry Code of Practice was created based on:

* *The Saskatchewan Employment Act and The Occupational Health and Safety Regulations, 2020*
* The Canadian Centre for Occupational Health and Safety (CCOHS)

**Associated Documents and Records**

* Hazardous Confined & Confined Space Decision Flow Chart
* Hazardous Confined & Confined Space Inventory Assessment form
* Hazardous Confined & Confined Space Entry Permit
* Hazardous Confined & Confined Space Entry Log Form

**FINITIONS**

**Definitions**

**Adjacent Piping:** a device such as a pipe, line, duct, or conduit which is connected to a confined space or restricted space or is so isolated as to allow a substance from which within the device to enter the confined space or restricted space.

**Backup Tending Worker:** The person who is assigned a secondary tending worker status. The backup tending worker must assume the same responsibilities as the primary tending worker if required.

**Blank:** a solid plate installed through the cross-section of a pipe, usually at a flanged connection.

**Blanking or Blinding:** the absolute closure of adjacent piping, by fastening across its bore a solid plate or cap that completely covers the bore and that is capable of withstanding the maximum pressure of the adjacent piping.

**Blind:** a solid plate installed at the end of a pipe which has at that point been physically disconnected from a piping system.

**Double Block and Bleed:** the closure of adjacent piping by locking out a drain or vent in the open position in the line between 2 locked out valves in the closed position.

**Isolate:** physically interrupt or disconnect pipes, lines and sources of energy from a confined space.

**Hot Work:** work in which a flame is used or sparks or other sources of ignition may be produced, including cutting, welding, burning, air gouging, riveting, drilling, grinding and chipping; using electrical equipment not classified for use in a hazardous location, and introducing a combustion engine to a work process.

**Oxygen Deficiency:** Air containing less than 19.5% oxygen by volume.

**Oxygen Enrichment:** Air containing more than 23% oxygen by volume.

**Tending Worker:** Person who remains outside of the confined space at all times to provide assistance to the workers in the confined space. The tending worker is required to ensure the safety of those working inside the confined space & is required to provide emergency assistance if needed.

**Vapour:** Formed from a material that is normally a liquid at room temperature. Most solvents form vapours, the amount of vapour formed depends on how volatile the substance is.

**Ventilation:** Method of forcing air into a confined space using a mechanical device.

 **Confined & Restricted Space Code of Practice Review**

**Purpose of the Program**

* Is to ensure the safety of personnel required to enter and conduct work in a confined and meet requirements of The Occupational Health and Safety Regulations, 2020 and The Saskatchewan Employment Act.

**Training Requirements**

* All persons involved with a confined space entry must hold a current 3rd party Confined Space Entry + Rescue certification plus all school division employees must have successfully reviewed the confined space AP.

**A “Confined Space” is defined as follows:**

**A Confined Space (Saskatchewan)**

(a) “confined space” means an enclosed or partially enclosed space that:

(i) is not primarily designed or intended for human occupancy, except for the purpose of performing work; and

(ii) has restricted means of entrance and exit.

**Identification, Hazard Assessment and Inventory**

The school division must identify, assess and maintain a documented inventory of all confined spaces that workers may be required to enter for planned or unplanned maintenance or in an emergency. As well, all entrances to the locations identified must be signed according to the assessment.

**General Safety and PPE**

The school division will ensure that:

* If a lifeline is required in a confined space, the lifeline will not create any additional hazards.
* The safety equipment and personal protective equipment (PPE) required under the Regulations, is available to workers entering a confined space.
* A worker who enters, occupies, or leaves a confined space uses the safety equipment and PPE.
* The PPE and emergency equipment required under the applicable regulations, is available to workers undertaking rescue operations in a confined space.
* Equipment appropriate to the confined space, including PPE is available to perform a timely rescue.
* A communication system is established that is readily available to workers in a confined space and is appropriate to the hazards.
* All PPE and emergency equipment required for use in a confined space must be inspected by a trained person before workers enter the confined space or restricted space to ensure the equipment is in good working order. Written records of the inspections will be retained by the school division.

**Unauthorized Entry**

No school division Facilities staff member or contractor may enter a confined space until a risk rating for the confined space has been assigned by a supervisor and appropriate confined space training has been received.

**Traffic Hazards**

Workers in or around a confined space must be protected from hazards created by traffic.

**Entry and Exit**

A safe means of entry and exit must be available to all workers required to work in a confined space and to rescue personnel attending to the workers.

**Hot Work**

Hot work cannot be done in the vicinity of or within a confined space where:

* + A flammable substance is or may be in the atmosphere of the work area;
	+ A flammable substance is or may be stored, handled, processed, or used in the location;
	+ The hot work is on or in an installation or item of equipment that contains a flammable substance or its residue; or
	+ The hot work is on a vessel that contains residue that may release a flammable gas or vapour when exposed to heat.
	+ **No hot work** will begin until procedures have been implemented to ensure continuous safe performance of the hot work and testing shows that the atmosphere does not contain:
	+ A flammable substance, in a mixture with air, in an amount exceeding 20% of that substance’s lower explosive limit for gas or vapours; or
	+ The minimum ignitable concentration for dust.
* Testing must be repeated and documented at regular intervals appropriate to the hazard associated with the work being performed.

**Pre-Entry Procedures** (order of steps may change based on job scope being performed)

Complete the Confined Permit.

**CONFINED SPACE RESCUE:**

The school division must ensure that a worker does not enter or remain in a confined space unless an effective rescue can be carried out and a review of emergency response procedures has been conducted.

**Retaining Records:**

An employer must ensure that all records with respect to entry and work in a confined space, including entry permits, safe entry tags and entry/exit logs are retained for not less than:

a) 1 year if no incident or unplanned event occurred during the entry; or

b) 2 years if an incident or unplanned event occurred during the entry**.**

**See additional confined space documentation pertaining to the division:**

1. Confined Space Code of Practice

2. Confined Space Entry Decision Flow Chart

3. Confined Space Entry Log Form

4. Confined Space Entry Permit

5. School Division’s Confined Space Inventory Lists



**Confined Space Entry Log Form**

|  |  |  |  |
| --- | --- | --- | --- |
| Date: | Year  | Month  | Day  |

|  |
| --- |
| **Entry Log** |
| **Entrant Name** | **Time in**(24hour) | **Tending Worker Initials** | **Reason for Entry** | **Time Out**(24 hour) | **Tending Worker Initials** |
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| --- | --- | --- | --- |
|  **Name** | **Signature** | **Date yyyy/m/dd** | **Time (24 hour)**  |
|  | **Tending Worker** |  |  |  |  |
|  | **Backup Tending Worker** |  |  |  |  |

**Confined Space Entry Permit**

|  |  |  |  |
| --- | --- | --- | --- |
| Date: | Year  | Month  | Day  |
| 1. **Permit Category** *(check one box below to designate the function of this permit)*
 |
|  |  |  |
| Saskatchewan | 🞏 - Confined |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Permit Valid from:**  | *Year* | *Month* | Day |  **Time** | *24 hour* |  | **Permit Valid Until:** | *Year* | *Month* | *Day* | **Time**  | *24 hour* |
|  | **Extended Permit Time** | *Year* | *Month* | Day | **Time**  | *24 hour* |

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| 1. **Location and Description of Job/Tasks Requiring Entry:** (attach drawing if necessary)
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| ***Refer to JSA for Hazards Identified and applicable Controls.*** |

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| --- | --- | --- | --- |
| 1. **Workers**
 | Name | Valid Confined Space Training |  |
| Tending Worker *(per Code of Practice)* |  | 🞏 Yes |  |
| Backup Tending Worker *(per Code of Practice)* |  | 🞏 Yes |  |
| Entry Worker |  | 🞏 Yes |  |
| Entry Worker |  | 🞏 Yes |  |
| Entry Worker |  | 🞏 Yes |  |
| Entry Worker |  | 🞏 Yes |  |
| Entry Worker |  | 🞏 Yes |  |

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| 1. **Communication**
 |
| Audible | 🞏 - Verbal | 🞏 - Radio | 🞏 - Air Horn | 🞏 Tapping/Knocking |
| Visual | 🞏 - Hand Signals | 🞏 - Flashlight | 🞏 - Flags | 🞏 - Other |
| Tactical | 🞏 - Tug On Lifeline | 🞏 - Tap On Body | 🞏 - Other |  |
| **Emergency Response Plan** | **🞏 - Reviewed and available** |  |  |
| Describe communication procedures and equipment to be used (mandatory) |
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| 1. **Rescue Plan** (List Rescue Team Members, Describe Rescue Procedures and Equipment to be used) Attach additional sheets if required.
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| **Rescue Team Lead:** |
| **Rescue Team:****Rescue Team:****Rescue Team:****Rescue Team:****Rescue Team:** |
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| --- | --- | --- | --- |
| **Name** | **Signature** | **Date****yyyy/m/dd** | **Time (24 hour)** |
| **Technician/Electrician:** |  |  |  |  |
| **Foreman/Supervisor:** |  |  |  |  |
| **Foreman/Supervisor:** |  |  |  |  |

TO BE VALID THIS PERMIT **MUST** BE SIGNED BY THE FOREMAN or SUPERVISOR.

**Confined Space Inventory (Division specific)**