



## Confined Space Entry

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**Approved by:** Jim Toye, City Manager

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**Personal Protective Equipment:**

Safety glasses / face shield, gloves, protective footwear, hearing protection

**Introduction:**

**Confined Space** means any space:

- That is large enough and so configured that a worker can physically enter and perform assigned work.
- Not intended for continuous worker occupancy, except for the purpose of performing work.
- Having a limited means for worker entry or exit due to the number, size or location of openings.
- That has doors and other portals through which a person could walk are not considered limited means for entry and exit. However, a space containing such a door or portal may still be deemed a confined space if an entrant's ability to escape in an emergency would be hindered.
- Confined spaces include, but are not limited to: storage tanks, bins, boilers, ventilation or exhaust ducts, sewers, manholes, underground utility vaults, tunnels and pipelines. Open top spaces more than four feet in depth such as: pits, tubs, and vaults may also be confined spaces if the above criteria are met.

**Purpose:**

The purpose of this procedure is to establish a uniform procedure for the safe entry into confined spaces and to protect City of Prince Albert workers and contractor personnel while working in confined spaces such as manholes, pipe tunnels, boilers, tanks, crawl spaces, etc. This procedure is intended to comply with the requirements of the Saskatchewan *Occupational Health and Safety Regulations* 1996 Part xviii.

**Scope:**

This procedure describes basic mandatory practices and procedures that must be followed for worker entry into and work within confined spaces by all City of Prince Albert workers and all contractors working on City of Prince Albert projects.

**Definitions:**

**Attendant:** an individual assigned to remain immediately outside the entrance to the confined space, to monitor entrants, and to render assistance as needed to entrants inside the confined space without entering the space.

**Blind, or Blank:** the absolute closure of a pipe, line or duct, to prevent passage of any material by fastening a solid plate or "cap" across the bore which is capable of withstanding the maximum potential upstream pressure and temperature.

**Entrant:** any authorized person who enters a confined space who:

1. Has a valid need to enter a confined space.
2. Has been trained as required by this procedure.
3. Has been briefed on the hazards of the confined space and is properly protected from all hazards by use of appropriate engineering controls or personal protective equipment.

**Entry Permit:** is the written or printed document provided to permit and control entry into a confined space for a stated purpose for a specified period of time. The confined space entry permit must be properly completed prior to any confined space entry and must be posted at the portal of the confined space in use.

**Entry Supervisor (Qualified Person):**

1. A person who is trained on this procedure and on how to recognize the hazards of the confined space, how to evaluate those anticipated hazards, and capable of specifying necessary control measures to ensure worker safety.
2. The person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry, overseeing entry operations and for terminating entry.
3. The entry supervisor may or may not actually participate throughout the entry, but shall be on the scene during the issuance of any confined space entry permit and be readily available for consultation.

**Entry Supervisor Emergency:** any occurrence, internal or external to the confined space, of an event including the failure of hazard controls or monitoring equipment, which could endanger workers.

**Hazardous Confined Space:** a confined space where there is a likelihood or potential for serious injury or illness or the inability to escape unaided from a confined space because of one or more of the following:

1. A flammable gas, vapor, or mist in excess of its Lower Flammable Limit (LFL).
2. An oxygen-deficient atmosphere containing less than 19.5% oxygen by volume or oxygen enriched atmosphere containing more than 23.0% oxygen by volume.
3. An atmospheric concentration of any toxic or chemical substance, which may be harmful to humans.
4. An airborne combustible dust at a concentration that obscures vision.
5. A concentration of an air contaminant that is considered Immediately Dangerous to Life or Health (IDLH) by any published source, including the manufacturer's Material Safety Data Sheet (MSDS).
6. A condition Immediately Dangerous to Life or Health (IDLH) as defined in this procedure.

**Hot Work:** Work that produces arcs, sparks, flames, heat or other sources of ignition. This includes but is not limited to burning, welding, grinding, and space heating.

**Intrinsically Safe:** Equipment that is explosion proof and will not produce sparks or other ignition sources.

**Immediately Dangerous to Life and Health (IDLH):** means any condition that poses an immediate or delayed threat to life, or which is likely to result in acute or immediately severe health effects or that would interfere with an individual's ability to escape unaided from a confined space.

**LFL:** Lower Flammable Limit - the minimum concentration of a flammable gas or vapor in air (usually expressed in percent by volume at sea level), that will ignite if an ignition source is present.

**Lockout or Tagout:** means placing locks or tags on the energy isolating device(s) in accordance with Facilities Lockout / Tagout procedure. The key for any lock used for Lockout shall remain with the person working within the confined space.

**Oxygen Deficient Atmosphere:** an atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen Enriched Atmosphere:** an atmosphere containing more than 23.0 percent oxygen by volume.

**PEL:** Permissible Exposure Limit

**Permit Required Confined Space or Permit Space:** those spaces which meet the requirement of a Hazardous Confined space and which pose health and safety hazards such as:

1. A current or potentially hazardous atmosphere,
2. Potential worker entrapment (from inwardly converging walls or downward sloping floor),
3. A potential for engulfment,
4. Contains any other serious safety or health hazard.

**PPE:** Personal Protective Equipment

**Purging:** the method by which gases, vapors or other airborne contaminants are displaced.

**Retrieval Line:** means a line or rope secured at one end to a worker's safety belt, chest or body harness, or wristlets with the other end secured to an anchor point or lifting device located outside the entry portal. The anchor point shall not be a motor vehicle. Retrieval lines shall be of sufficient strength to remove an entrant when necessary.

**SCBA:** Self Contained Breathing Apparatus.

**Zero Mechanical State:** means that the mechanical potential energy of all portions of the machine or equipment is at its lowest practical value, set so that the opening of the pipe(s), tube(s), hose(s), or actuation of any valve, lever or button will not produce a movement which could cause injury.

**Confined Space Identification and Classification:**

Although ALL confined spaces are initially considered hazardous, certain spaces can be reclassified as "a non-permit confined space" provided the following apply:

1. Site-specific approval of a qualified professional. (I.e.: Coordinator Health, Safety & Environment, Entry Supervisor, Occupational Health and Safety Committee etc.)
2. All contaminants, vessels containing contaminants, and contaminated material have been removed.
3. All actual or potential atmospheric hazards have been eliminated and verified by testing.
4. Ventilation is not required to maintain control of atmospheric hazards.
5. All recognized hazards have been eliminated.

**A Hazardous Confined Space Entry Permit is required when:**

1. A confined space that meets the stated definition.
2. Contains or could contain a hazardous atmosphere.
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
4. Contains any other recognized serious safety or health hazard.

**General Requirements:**

Each confined space being entered shall have a minimum of one dedicated attendant and one other support person (who may have other duties) within sight or call.

All Entry Supervisors must be thoroughly familiar with the confined space entry procedures and shall be responsible for ensuring that all entries are conducted according to the posted procedure. The use of the space, internal configuration, size of the openings, contents, construction materials, internal mechanical devices, unique characteristics and hazards are all factors that should be known by all entrants before entering.

No confined space will be entered until it has been thoroughly tested for hazardous conditions and all of those conditions have been properly eliminated or overcome.

Unauthorized entry shall be prevented through measures such as training, posting of signs and barriers.

All required PPE must be sanitary and in proper working condition prior to use.

All members of the entry team must be properly trained.

Contingencies/Emergencies specific to each entry must be anticipated and planned for such as:

1. Worker asphyxiation, engulfment or injury
2. Fire and explosion
3. Fluid or gas leaks

All support equipment such as breathing apparatus, fire extinguishers, rescue ropes and harnesses, atmospheric monitors and required electrical devices, explosion proof or intrinsically safe equipment, etc.) shall be utilized during entry and readily available if needed.

Rescue procedures and related equipment must be considered beforehand and be readily available during entry.

Any deviation from this procedure must be approved in writing and attached to the Entry Permit by the Supervisor responsible for Confined Space Entry.

### **Entry Procedure Into a Building Crawlspace:**

- Before entering the crawlspace the Building Operator or Designate must be notified.
- Any person entering the crawlspace must be in constant radio contact with another responsible worker.
- The worker designated must remain at the entrance to the crawlspace at all times while another worker is in the crawlspace.
- In the event of an emergency the worker at the entrance must effect a rescue by calling 911.
- The worker outside must not enter the crawlspace without backup in order to effect a rescue.

### **Entry Procedure Into a Hazardous Confined Space:**

- Entering confined spaces is potentially one of the most dangerous jobs in industry. Entry into a confined space shall be conducted only if necessary to do assigned work. Whenever possible assigned work shall be done from outside the space.
- This Confined Space Entry Procedure shall be followed for entry into any defined confined space.
- This procedure is to be used only by trained / authorized entry supervisors, entrants and attendants.
- Hazards of entering confined spaces can be managed safely if the following principles and procedures are followed:
- Identify the confined space and develop a written work plan for isolating, clearing and entering the space.
- Isolate the space from all hazardous energy sources, production streams and/or energized equipment and stored pressure.
- Empty, flush, purge, ventilate and clear the confined space (from the outside if possible).
- Identify known and potential hazards or contaminants that may be found in the space.
- Prohibit entry into the space until atmospheric testing is conducted and the applicable entry permit is completed, signed and posted at the entry to the space.

- After the space has been removed from service and prior to entry, initial testing of the atmosphere shall be conducted.
- When removing the space from service, the space shall be opened up as much as possible to allow for good ventilation.
- After the applicable entry procedures have been conducted, an entrant, attendant or other trained person shall inspect the space to verify that all actions and conditions necessary for safe entry have been performed.
- Any deficient areas shall be corrected before entry proceeds.
- Once the inspection is completed, the entry supervisor who performed the inspection shall sign the entry permit.
- Entry is prohibited until the permit has been completed satisfactorily and signed.
- Ventilate the space to remove hazardous gases, vapors, dusts and fumes and test the atmosphere with the ventilation system turned off.
- Prepare the space, specifying the hazards that may be found, acceptable entry conditions, and required level of PPE to be used.
- Review the work plans, hazards, safety requirements and PPE requirements with all entry personnel during the pre-entry meeting and with others working near the space (contractors) before entering the space.

**Confined Space Entry Permit:**

Entry into a hazardous confined space shall be documented in writing using an ENTRY PERMIT.

- The permit is a written authorization and approval that specify the job to be done and certify that all hazards have been evaluated and protected against.
- It also serves as a record of all entrants.
- All required signatures must be present and the permit must be filled out completely.
- Entry permits are only valid for a specified time period (e.g., one task or one shift).
- Prior to entry, a copy of the entry permit shall be made available to all entrants by posting it at the portal. All entrants shall examine it to determine if entry conditions have been met.
- The original permit and any subsequent permits shall be retained for a minimum of one year.

- All permit required confined space entries shall have the following minimum equipment at the entry site prior to initiating the entry:
  1. Communication equipment
  2. Full body harness
  3. Appropriate PPE
  4. For top entry: rescue line & tripod retrieval winch
  5. For bottom entry: rescue line, wristlets.
- A separate Hot Work Permit shall be obtained for any welding, burning, drilling or other hot work that will take place within the space and attached to the entry permit.
- The Entry Permit shall outline the elements of a rescue plan for the rescue of entrants in case of an emergency. It will outline at least the following elements:
  1. Designated rescuers
  2. Equipment
  3. Methods of summoning the rescue team.
- Prior to any confined space entry, a pre-entry safety meeting shall be held that involves all participants (including contractors) and covers at least the following points:
  1. Review all existing or potential hazards that may exist in the space.
  2. Review the required levels of PPE. The entry supervisor shall ensure that each participant has the proper PPE and knows how to use it.
  3. Discuss the work to be performed, who will do it and how it will be done safely.
  4. Review the rescue plan that will be activated in case of emergency.
- Anyone not attending the pre-entry safety meeting will not be allowed to enter the permit space until they have been briefed on all the information presented at that meeting.
- The entry permit serves several essential functions:
  1. It restricts entry so that only authorized personnel may enter a confined space.
  2. It ensures that communication takes place and hazards are controlled.
  3. It minimizes safety precautions to be taken.
  4. Serves as an official written record of existing conditions, requirements and safeguards.
  5. Serves as a tool for reviewing this procedure.

**Entry Permit:**

Entry into a permit-required confined space shall not be made unless an entry supervisor has assured that the following procedures have first been completed:

An entry permit is initiated by obtaining a blank Entry Permit. The permit will indicate:

1. The specific confined space to be entered.
2. What work is to be performed.



3. The length of time estimated to complete the work. Permits are only valid for 12 hours. A permit may be extended for another 12 hours provided that acceptable conditions are re-certified and test results entered on the permit.
4. What date and time the work will be started.
5. What personnel, names and titles, will perform the work.
6. Name and title of authorizing authority.
7. Name and title of Entry Supervisor.
8. Name and title of person acting as the "Attendant".

All pumps or lines which may convey flammable, injurious, or incapacitating substances into the confined space shall be disconnected, blinded, (double blocked or bled), or effectively isolated by other means to prevent the development of dangerous levels of air contamination or oxygen deficiency within the space. The closing of valves alone, or the closing of valves and locking or tagging of them, is not considered effective protection. The disconnection or blind shall be so located that inadvertent reconnection of the line or removal of the blind is effectively prevented.

**NOTE:** This does not require the blocking of all laterals to sewers or storm drains unless experience or knowledge of industrial use indicates materials resulting in dangerous air contamination may be dumped into an occupied sewer.

The atmospheric testing equipment must be "field checked" prior to testing the atmosphere in the confined space.

Atmospheric testing must be conducted for oxygen levels between 19.5% and 23.0% by volume and the percentage found is to be entered on the permit. The last calibration date of the oxygen detector must be entered on the permit.

Atmospheric testing must be conducted for flammable gas, vapors or mists in excess of 10% of its LEL and results noted on the permit.

The confined space must be flushed or emptied of all dangerous substances and then tested for known toxic substances.

Enter the value of the PEL on the permit.

If a hazardous atmosphere is present, ventilation and respirators must be provided.

Electrical and mechanical hazards must be removed or prevented from causing a hazardous situation.

Personnel entering a permit-required confined space with a hazardous atmosphere must be provided with an appropriate retrieval device, retrieval line and an appropriate respirator. The personnel must have received and have documented training on the use of a respirator.

If a hazardous atmosphere is present, atmosphere testing shall be conducted every hour that the confined space is occupied and results noted on the permit.

If there is a problem the attendant will take the necessary action to ensure the safety of those involved by summoning the appropriate rescue personnel and briefing them.

**NOTE: Under NO circumstances are the attendant to enter a hazardous confined space.**

When the work has been completed the Entry Supervisor shall sign the permit as being completed and all conditions in the confined space have been returned to normal, the space is returned to normal service.

**Isolation Procedure:**

Before persons are permitted to enter a hazardous confined space the following isolation procedures shall be conducted where applicable:

1. Depressurize the confined space if necessary.
2. The confined space must be isolated by Lockout/Tagout to preclude the entry of hazardous materials. Prevent the introduction into the confined space of hazardous materials from interconnecting equipment such as piping, ducts, vents, drains or other means. This will include not only inlet and outlet piping but also all potential sources (electrical, thermal, hydraulic, mechanical, pneumatic, etc.).
3. Lockout/Tagout any hazardous energy sources within or attached to the confined space to prevent accidental movement or energizing of such sources. Where applicable, one or more of the following methods shall be used:
  - a. Remove a valve, spool piece, or expansion joint in piping to, and as close as possible to, the confined space, and blank or blind a pipe or duct at the nearest accessible point to the confined space.
  - b. Employ the "double block and bleed" technique (a method used to isolate a confined space from line, duct or pipe by locking closed and tagging in-line valves on a piping system, and opening a valve between them that is vented to the atmosphere) at the nearest accessible point to the space.
  - c. In cases where lines have contained hazardous liquids or gases, inert gases, or gases or liquids at high temperature or pressure, all lines entering the space (process, steam, pneumatic or hydraulic lines, vents, drains, etc.) shall be physically disconnected as close to the tank or vessel as possible and practical.

- d. Lines shall also be physically disconnected if they could introduce non-hazardous substances into the space in quantities that could engulf the entrants. If possible the open ends of disconnected lines must be blanked or capped to prevent any liquids or gases from entering the space. All blind flanges must be of sufficient thickness and tensile strength to withstand maximum pressures and corrosion by chemicals to which they may be exposed.
- e. Pressure in the lines must be bled down to atmospheric levels. Where lines cannot be physically disconnected due to space limitations, they may be blinded and tagged or a double block and bleed arrangement may be used.
- f. To avoid the buildup of static electricity, all lines and other equipment used during the entry shall be electrically bonded and grounded to the space.
- g. All sources of ignition within the space, and those nearby which are close enough to pose a hazard, shall be turned off and locked out.

**Ventilation in Confined Spaces:**

Continuous ventilation of the space shall be performed under the following cases:

1. Initial air monitoring determined that conditions were not acceptable.
2. Natural ventilation is not adequate (example, space has only one entrance).
3. Chemicals are to be introduced into the space for cleaning or other purposes.
4. Welding or other “hot work” is to be conducted inside the space.

Oxygen or power air-driven ventilators shall not be used to ventilate space.

Air movers used for ventilation shall be operated in the supply mode. The ventilation rate shall be high enough to achieve 20 air changes per hour.

Whenever possible, air movers shall be used with ducting to increase the efficiency of ventilation in the space and to prevent re-entry of contaminated air.

If the ventilation stops, all entrants shall evacuate the space immediately.

The space must be thoroughly ventilated using atmospheric air only (never compressed air or oxygen). The equipment providing the ventilation outside the confined space must be situated to ensure that it does not introduce exhaust fumes or other toxic gases into the space.

Continuous ventilation shall be used while welding in a confined space or working in tank/vessel(s) that contain sludge, scale or other flammable materials.

### **Confined Space Atmospheric Monitoring Procedures:**

A written record of the pre-entry atmospheric monitoring results shall be documented and kept at the work site for the duration of the entry. This record is part of the entry permit and is to be kept on file for 1 year.

The entry supervisor shall certify in writing, based upon the results of the pre-entry atmospheric monitoring, that all hazards have been eliminated.

All affected persons must review the test results.

The most hazardous conditions will govern when work is being performed in two adjoining, connecting spaces.

After the space has been removed from service and prior to entry, a trained entrant or attendant shall conduct initial testing of the atmosphere inside the space. The testing shall be for the following:

- Oxygen
- Flammable atmosphere (%LFL)
- Toxic gases or vapors

Atmospheric testing shall be conducted using only properly calibrated monitoring equipment. Properly calibrated equipment is equipment that has been calibrated using the manufacturer's recommended specifications within the past 30 days. The most recent calibration date shall be marked on the equipment and in the logbook for testing and maintenance of such equipment.

After appropriate ventilation, a check of the atmosphere inside the confined space shall be conducted prior to entry, as determined by the potential hazard and immediately prior to any hot work. If IDLH conditions are suspected, an air-supplied respirator must be used while conducting initial testing. Record the readings.

Ventilating equipment shall be turned off at least fifteen minutes prior to performing any atmospheric monitoring to ensure that the values shown are representative of the raw atmosphere within the space.

The person conducting the atmospheric monitoring shall initial and list on the permit the date/time the testing was conducted and the results of the test.

Atmospheric monitoring shall be conducted at a minimum of 3 locations within the space (i.e., bottom, middle, and top of space). Record the readings on the entry permit.

If entry is to be through a manhole, initial air monitoring shall be conducted through the manhole cover without removing the cover whenever possible. This is to prevent sparking in case of a flammable atmosphere in the space.

If entry is to be through the side of a space, testing immediately inside the space shall be conducted prior to entry.

All atmospheric monitoring results shall be legibly recorded on the entry permit documenting the range of results obtained from the different sampling locations within the space.

Entry into a confined space is prohibited when one or more of the following conditions are present:

1. Atmospheric oxygen concentration below 19.5 or above 23.0 percent.
2. Flammable atmosphere in excess of 10 percent of its LEL.
3. Airborne combustible dust at a concentration that obscures vision at a distance of 5 feet or less, or combustible dust concentration is more than LEL.
4. Any air contaminant at a concentration in excess of its allowable concentration.

A trained qualified person, such as an entry supervisor, Health & Safety professional, etc., shall perform all atmospheric monitoring and all readings are to be recorded on the Confined Space Entry Permit.

Continuous atmospheric monitoring may be needed based upon the potential for changing atmospheric conditions. Readings are to be recorded every fifteen minutes.

**Confined Space Illumination:**

All confined spaces shall be properly illuminated.

When temporary lighting is used in confined spaces containing combustible or flammable dusts, residues or contaminants, the following requirements shall be met:

- All temporary lighting and powered equipment shall be protected by the use of a Ground Fault Circuit Interrupter (GFCI) or be the low voltage type (12 volts).
- All lighting shall be Underwriters Laboratories (UL) approved. Equipment used in hazardous areas shall match the classification of the area (i.e., Class 1 or 2, Division 1 or 2, etc.).
- Extension cords used for temporary lighting shall be equipped with connectors or switches approved for hazardous locations.

**Protective Equipment:**

Appropriate protective equipment (selection based on exposure) shall be worn during entry. This may include but not limited to the following:

1. Protective clothing
2. Hard hat
3. Gloves
4. Safety-toed footwear
5. Safety glasses with side shields, or face shields
6. Respiratory protection

No one will use respiratory protection unless they have been properly trained and qualified in its use.

All entrants shall wear a rescue line unless it would increase the overall risk of entry. The rescue line shall be attached to a mechanical device or fixed point outside the space. Under NO circumstances is the line to be fastened to a vehicle.

A mechanical device must be available to retrieve personnel from vertical spaces more than 1.2 meters deep.

A full body harness shall be worn for all top entry confined spaces.

Personal Protective Equipment (PPE) is necessary for entry into a confined space if the space contains a corrosive hazard or if chemicals brought into the space require such clothing.

The proper type of PPE must be assigned for use in confined spaces based on the types and amounts of hazardous substances present in the confined space.

Additional information may be obtained from the applicable MSDS.

Where required, PPE shall be NIOSH, ANSI or CSA approved.

Respiratory protection is required in situations where hazardous dusts are present and when atmospheric monitoring results dictate.

Workers must be trained in the proper selection and use of PPE.

**Retrieval equipment is required for all confined spaces such as entries that:**

1. Present an engulfment hazard from the presence of a material inside the space during entry.
2. Involve hot work or the presence of chemicals inside the space.
3. Require the use of air supplying respirators.

**Retrieval equipment shall include:**

1. A retrieval line that 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.
2. A mechanical device shall be available to retrieve personnel from vertical type spaces more than 1.5 meters deep.
3. A chest or full body harness, with a retrieval line attached at the center of the entrants back near shoulder level, or above the entrant's head. Wristlets may be used in place of

the chest or full body harness if the use of a chest or full body harness is impractical or creates a greater hazard.

4. Fall protection for distances greater than 2 meters in depth and requiring entry through the top.

**Miscellaneous Tools and Equipment:**

Many types of tools and equipment may be utilized to conduct a confined space entry. The tools and equipment shall meet the following minimum criteria:

1. Electrical tools using nominal 120-volt alternating current shall be grounded and connected only to a GFCI circuit.
2. Within spaces where a flammable atmosphere may exist, all electrical equipment shall be explosion proof or intrinsically safe.
3. All electrical lighting systems shall be connected to a GFCI circuit or provided by a 12-volt electrical system.
4. Where ladder or scaffolding use is required, all equipment shall be non-slip/skid and shall be secured (tied off) as necessary to ensure against falling.
5. Arc welding equipment shall be properly grounded, taken into space only when needed and removed as soon as possible.
6. Compressed gas cylinders (except breathing air and portable fire extinguishers) ARE NOT to be taken into any confined space. Oxy / acetylene hoses and arc welding equipment may be taken into the space but must be checked for leaks and/or cracks prior to use. If leaks or cracks are found the hose or cable shall be replaced immediately.

**Medical Considerations:**

Individuals who are claustrophobic should be made aware of the conditions involved in a confined space and should notify their supervisor if they feel unable to function in such an environment. The Supervisor should excuse such individuals.

**Additional Procedures:**

**Rescue Service Personnel**

Rescue teams shall be from the City of Prince Albert Fire Department as well as in-house personnel trained to effect rescues.

All rescuers entering the space shall be trained and equipped to perform rescues. They shall also be trained as entrants.

A rescue entry is to be considered as IDHL until proven otherwise.

Rescuers shall use a separate air supply from those being rescued.

Appropriate fire protection and/or water supply should be readily available and operable if needed.

Attendants will not enter a confined space to make a rescue unless ALL the following conditions are met:

1. Another attendant relieves them.
2. They are also trained as entrants.
3. They are equipped with the proper PPE clothing and equipment.

**Training:**

Managers and Supervisors shall inform their subordinates of the hazards of working in confined spaces and permit-required confined spaces by providing specific training to employees before they may be authorized to enter a confined space.

Supervisors must ensure that untrained employees DO NOT participate in confined space entries. All entry supervisors, entrants and attendants shall attend regular training courses to keep abreast of changing requirements and to maintain skills. Superintendents shall document that the required training has been received and that the employee is proficient in the duties required of him/her. Documentation shall contain each trained employee's name, the signature of the trainer and the date of training.

**Training shall include but be not limited to the following:**

1. Use of atmospheric testing devices, for those associates required to perform atmospheric tests, including field checks as specified by the manufacturer, normal use and specific limitations of the equipment.
2. Use of special equipment and tools, including rescue equipment.
3. Emergency and rescue methods and procedures.
4. Duties of the "entry supervisor" during permit-required confined space operations.
5. Duties of the "attendant" during permit required confined spaces.
6. Duties of the "entrant" during permit required confined spaces.
7. The confined space entry permit system.

**Training shall be given to affected employees:**

1. Before the worker is assigned duties relating to confined space.
2. Before there is a change in his/her assigned duties related to confined space.



3. Whenever there is a change in permit space operations that presents a hazard for which the employee has not been trained.
4. Whenever the supervisor has reason to believe that the worker's knowledge or use of procedures are inadequate.

**Training records shall be kept on file by the Personnel Department and shall include the following information:**

1. Date of the training program.
2. The instructor(s) name and title.
3. Names of employees and titles.
4. Outline of topics covered.

**Contractors and Sub-Contractors:**

Contractors shall be informed by the Project Manager of the hazards of the confined space policy prior to the beginning of work. The Project Manager shall provide the contractor with copies of the City of Prince Albert Confined Space Procedure, MSDS's for any chemicals in the area of the job and the Lockout/Tagout Procedure. The project Manager must inform the contractor that the workplace contains confined space entry permit spaces and that confined space entry is allowed only through compliance our procedure.

Contractors required to enter confined spaces must be pre-qualified to perform such work by providing the following documentation to the Project Manager:

1. Their general safety policies and procedures.
2. Their Confined Space Entry Procedure (It must meet the requirements of the *Saskatchewan Occupational Health and Safety Regulations 1996* Part XVII)
3. Their Confined Space Entry Permit Program and Permit
4. Training certification for involved personnel.
5. Their Hot Work procedures and permit if the job involves hot work.
6. List of confined space safety equipment they will provide for use on the job.
7. Emergency procedures they will use on the job.

Contractor personnel shall conduct atmospheric monitoring using their own equipment and must issue an entry permit using their own form. Documentation of proper calibration shall be available at the work site.

Contractors shall be responsible for the assignment of appropriate PPE for their personnel.

Contractors shall have their own appropriate rescue equipment, and procedures available at the work site.

Upon completion of the contractor's confined space work, a copy of the contractor's Entry Permit shall be forwarded to the Facilities Management Office to be filed and retained for review.

**Review:**

This procedure will be reviewed whenever any deficiencies are found, this procedure shall be revised to correct those deficiencies before any subsequent entries are authorized.