

Passed By Council on:01/30/1995

Purpose

To identify all confined spaces and ensure safe entry procedures are developed.

Policy Statement

All departments shall identify confined spaces and develop confined space entry procedures applicable to their needs.

Definitions:

The Canadian OHS Regulations XI.11.1 defines a confined space as follows:

Confined Space: “An enclosed or partially enclosed space that:

1. is not designed or intended for human occupancy except for the purpose of performing work and;
2. has restricted means of access and egress, and;
3. may become hazardous to an Employee entering it due to:
 - its design, construction, location or atmosphere;
 - the material or substances in it, or
 - any other condition relating to it.”

Confined Space Entry Attendant: The person responsible for coordinating the entry into the confined space.

Responsibilities:

Directors shall:

- ensure that confined spaces are identified and that confined space entry procedures are developed for their department.

Managers shall:

- identify confined spaces in their division and develop confined space entry procedures;
- ensure compliance with the confined space entry procedures.

Supervisors shall:

- ensure all Employees are trained in and comply with confined space entry procedure.

Employees shall:

- comply with the confined space entry procedures for their department;

- advise supervisor of any newly identified confined space.

Confined Space Entry Attendant shall:

- complete the confined space entry permit;
- maintain the worksite safety for the duration of the entry;
- summon emergency assistance if needed.

Confined Space Classification Guidelines

The City uses the following classification system for its confined spaces. Determine which category best suits your space and develop your procedure in accordance with the appropriate guideline.

CONFINED SPACE CLASSIFICATIONS:

CLASS ‘A’

A Confined space that presents a situation that is immediately dangerous to life or health (IDLH). These include but are not limited to oxygen deficiency, explosive or flammable atmospheres and/or concentrations of toxic substances. Example: Chlorine Rooms

CLASS ‘B’

A confined space that has the potential for causing injury and illness if preventive measures are not used, but not immediately dangerous to life and health. Example: manholes

CLASS ‘C’

A confined space in which the potential hazard would not require any special modifications of the work procedure. Example: attic spaces

All Confined Spaces Entry procedures shall address the following items:

- The use of only qualified persons to perform confined space work.
- Testing of the work atmosphere including frequency.
- Hazard identification and remedies for same.
- The lock-out/tag-out of any mechanical or electrical equipment in the area.
- Identification of and completion of the appropriate permits (i.e. Confined Space Entry Permit, Lockout/Tagout Permit, Hot Work Permit etc.)
- Pre-work meeting to assess the hazard and review with the employees their functions and responsibilities. This session shall include determination of method of communication between the employee topsides and those working in the confined space.
- Rescue/emergency procedures to be followed.

Class “A” Space Guidelines

1. Prior to entry, the work group should:
 - determine who shall be the attendant for the entry;
 - ensure that all personal protective equipment and materials required to enter the space are in good working order,

paying particular attention to rescue equipment.

- self contained breathing apparatus to be used for the entry shall be inspected by the user prior to use;
- ensure that two way radios are working and communications are clear;
- review the appropriate safe work procedure for this space;
- ensure that equipment to be used in the space is incapable of producing a spark;
- inspect and assemble rescue/retrieval system;
- complete pre-entry work permits such as Lock-Out/Tag-Out, Hot Work Permits etc. and leave in the control of the Entry Attendant;
- document and sign all inspections and permits.

2. A Confined Space Entry Permit must always be used in a Type “A” space.

3. Entry into a Type “A” space shall not be attempted unless there is an Entry Attendant present.

4. The Entry Attendant shall obtain the Threshold Limit Values Book (TLV) published by the American Council of Government Industrial Hygienists (ACGIH) from the Supervisor and determine the levels of any known contaminants in the space.

5. Upon arrival at the worksite, employees should conduct a hazard assessment to identify any potential hazards and the controls for these such as:

- erect traffic controls as necessary;
- ensure that any work to be done in the vicinity of powerlines is either done from a safe distance or that the utility company has taken protective measures;
- any other potential hazards that are identified are to be dealt with prior to entry.

6. The potential for fire and explosion in confined spaces exist so ensure there is no smoking or open flame around the confined space.

7. The space must be monitored before entry and, where necessary, the space purged and ventilated to make it less hostile. Continuous monitoring of the space must occur.

8. For spaces where the atmosphere cannot be returned to a safe environment, any employees entering the space must wear all appropriate personal protective equipment. This may include self-contained breathing apparatus, personal gas monitor, protective clothing.

9. The employees shall wear their full-body harness and other personal protective equipment as determined by the space requirements.

10. Employees shall be provided with personal gas detectors prior to entering the space.

11. The Attendant shall maintain clear means of communication with the entry employees at an agreed upon interval.

12. In the event that the gas detector goes into alarm during the entry, the employee shall immediately evacuate the space. The space must be retested to confirm that the hazardous situation has been corrected before any re-entry is permitted.

13. In the event of an accident, the Entry Attendant shall immediately contact 9-1-1 for assistance. If possible, the Entry Attendant shall attempt a non-entry rescue. Otherwise, they shall secure the area and await the arrival of the Fire Department.

Class “B” Space Guidelines

1. Prior to entry, the work group should:
 - determine who shall be the attendant for the entry;
 - ensure that all personal protective equipment and materials required to enter the space are in good working order, paying particular attention to rescue equipment.
 - Self contained breathing apparatus to be used for the entry shall be inspected by the user prior to use;
 - ensure that two way radios are working and communications are clear;
 - review the appropriate safe work procedure for this space;
 - ensure that equipment to be used in the space is incapable of producing a spark;
 - inspect and assemble rescue/retrieval system;
 - if any pre-entry work such as Lock-Out/Tag-Out, Hot Work Permits etc. are required for this job, these shall be completed at this time and left in the control of the Entry Attendant;
 - all inspections and checks must be documented and signed.
2. A Confined Space Entry Permit must always be used in a Type “B” space.
3. Entry into a Type “B” space shall not be attempted unless there is an Entry Attendant present.
4. Upon arrival at the worksite, employees should conduct a hazard assessment to identify any potential hazards and the controls for these such as:
 - erect traffic controls as necessary;
 - ensure that any work to be done in the vicinity of powerlines is either done from a safe distance or that the utility company has taken protective measures;
 - any other potential hazards that are identified are to be dealt with prior to entry.
5. The potential for fire and explosion in confined spaces exist so ensure there is no smoking or open flame around the confined space.
6. The Entry Attendant shall obtain the Threshold Limit Values Book (TLV) published by the American Council of Government Industrial Hygienists (ACGIH) from the Supervisor and determine the levels of any known contaminants in the space.
7. The Entry Attendant shall conduct air monitoring to ensure safe entry conditions.
8. If, as a result of air monitoring, it is determined that air contaminants are at an unacceptable level, the space shall be purged and ventilated for a minimum of 15 minutes prior to retesting. No entry shall occur until the space is deemed safe and stable.
9. The employees shall wear their full-body harness and other personal protective equipment as determined by the space requirements.
10. The Attendant shall maintain clear means of communication with the entry employees at an agreed upon interval.
11. Employees shall be provided with personal gas detectors prior to entering the space.
12. In the event that the gas detector should alarm during the entry, the employee shall immediately evacuate the space. The space must be retested before any re-entry is permitted.
13. In the event of an accident, the Entry Attendant shall immediately contact 9-1-1 for assistance. If possible the Entry Attendant shall attempt a non-entry rescue. Otherwise, they shall secure the area and await the arrival of the Fire Department.

Class “C” Space Guidelines

1. Upon arrival at the worksite, conduct a hazard assessment to identify any potential hazards and to control same such as:

- erect traffic controls as necessary;
- ensure that any work to be done in the vicinity of powerlines is either done from a safe distance or that the utility company has taken protective measures;
- any other potential hazards are identified they are to be dealt with prior to entry.

2. The potential for fire and explosion in confined spaces exist. To help prevent this, ensure there is no smoking or open flame around the confined space.

3. Using a hand-held gas detector, do a pre-entry check to ensure that Oxygen levels are within the acceptable range of 20% - 23% and that LEL reads 0%. If there is no work to be done which may change the hazards in the space (i.e. hotwork, welding etc.,) then continue on to Step 5. If any work is to occur which changes the hazards of the space (i.e. welding, hotwork) then please go to Safe Work Procedure for Type B' Space.

4. Where possible employees shall work in groups of two or more. Prior to entry, employees shall contact a designated person (determine your designated person) and provide them with the following:

- the worksite location;
- names of the employees entering the space;
- type of work to be carried out;
- anticipated duration of work;
- when next contact shall be made.

5. If the employees are using two way hand held radios, they shall do a radio check to ensure that communication is clear.

6. Employees shall increase ventilation in the space where possible by opening doors, windows, etc.

7. Before entry, check to ensure that any tools or equipment to be used do not change the hazards of the space (i.e. the use of an internal combustion engine could introduce carbon monoxide into the space).

8. At agreed upon intervals and upon leaving the space the employee shall contact the designated person.

9. If the employee fails to notify the designated person, then the designated person shall:

- attempt to contact the employee and if this fails;
- contact the supervisor and advise that the employees have failed to check in;
- contact the Safety Office at 8215 and advise of this information;
- remain on standby until the supervisor investigates and gives the all clear; or
- contact 9-1-1 upon the advice of the supervisor;
- the Safety Office shall also be advised of this information.

Application

Responsibilities

All Employees, Managers and Supervisors, Department of Human Resources, Occupational Health and Safety.

Definition

References/Appendix

Monitoring and Contravention

Approvals

Support Services Standing Committee Meeting - January 17, 1995; Regular Meeting of Council - January 30, 1995; Regular Meeting of Council - September 10, 2001. Finance and Administration Standing Committee report – October 28, 2009; Regular Meeting of Council – November 9, 2009.

Review Period

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