



**Labour and Workforce Development**

**OCCUPATIONAL HEALTH AND SAFETY DIVISION**

**Confined Space Entry**

**A guide to Part 12 of the**

**Occupational Safety General Regulations**

*October 2007*

## A GUIDE TO PART 12 – CONFINED SPACE ENTRY - of the OCCUPATIONAL SAFETY GENERAL REGULATIONS

The information contained in this publication is a guide only and should be read with the *Occupational Safety General Regulations* for specific requirements. The Regulations are available through our web site at <http://www.gov.ns.ca/lwd/healthandsafety/pubs.asp> or copies may be requested by calling the Information Specialist at 902-424-5400 or toll-free 1-800-952-2687. For your reference and convenience the section of the Regulation has been included where possible

## **Part 12- Confined Space Entry**

### **Application and interpretation (section 129)**

#### **What is a confined space?**

A confined is an enclosed or partially enclosed space:

- Not intended for regular human occupancy
- With restricted access or exit; and
- Is or may become hazardous to a person entering it because of design, construction, location, atmosphere or materials in it.

Note that to be considered a confined space, all 3 requirements must be met.

Common examples of a confined space are sewers, silos, empty tanks, etc.

### **Assessment and written procedures (section 130)**

#### **What written procedures are required?**

The employer must ensure that no person enters a confined space until the employer develops:

- A written confined space entry procedure
- A written rescue procedure
- A written procedure for testing the confined space in an adequate manner at regular intervals and if needed on a continuous basis.

#### **How often is confined space training required?**

- A person who enters a confined space must be trained at least once every two years
- A person who may undertake rescue operations in a confined space must be trained at least once a year.

#### **How often does a confined space entry procedure need to be reviewed?**

The employer must review the confined space entry procedure at least once a year and make changes if necessary.

#### **What are acceptable oxygen levels in a confined space?**

The oxygen level in a confined space cannot be less than 19.5% or more than 22.5%.

#### **Who has to certify a confined space, and does it need to be in writing?**

The person performing the tests must certify, in writing, that the conditions tested in the confined space are likely to be maintained and record the time the certification is valid.

The certificate must include:

- Signature of the person who is certifying the confined space
- Date & time tests were performed
- The type of work that can be performed and work that is explicitly banned
- The method by which the work is to be performed
- The expiry date and time of certification
- A record of the tests performed and the results

Sample certificates are shown at the end of this brochure.

**What is the maximum amount of time the confined space certificate is valid?**

24 hours after the first test is the maximum allotted time for the certificate.

**Does a copy of the certificate need to be posted?**

A copy of the certificate must be posted at the entrance to the confined space.

**Once the work has been completed in the confined space is it necessary to keep a copy of the certificate?**

The employer must keep a copy of the certificate for at least one year.

**Purging and further testing (section 132)**

**When is purging required?**

The confined space must be purged at least twice and retested when:

- A chemical substance or mixture of chemical substances is a hazard
- A physical agent levels constitutes a hazard and/or
- Oxygen levels are considered hazardous

**Response to hazardous conditions (section 133)**

**What if tests show a high level of flammable substances?**

An employer must ensure that no person enters or remains in a confined space where a concentration of a chemical substance or mixture of chemical substances in the confined space equals or exceeds 50% of the lower explosive limit (LEL).

**What if a chemical substance in a confined space is between 10% and 50% of the lower explosive limits (LEL's)?**

The employer must provide explosive-proof lighting and ensure it is used. The employer must also ensure the only work performed in the confined space is cleaning or inspecting, and that it is done in such a manner that it does not create a source of ignition.

**If I am not allowed to enter a confined space, can I place my arm in the confined to conduct a sniffer test?**

The term “enter” means a person’s entire body is in the confined space. Placing a body part (hand, arm, head, etc.) does not constitute “entering” a confined space. Extreme caution should be used when placing your head in a confined space.

**Once I have entered the confined space what must be provided?**

The employer must ensure that a person, whom the employer has designated in writing:

- Stays in the immediate area of the confined space
- Has communication with everyone in the confined space
- Can start the rescue procedure in an emergency
- Is trained in the rescue procedure; and
- Maintains a record of who is in the confined space

**Am I required to wear a full body harness when working in a confined space?**

Yes, a full body harness must be provided and worn if practical.

Note if an employer decides it is not practical to use a full body harness, they must be able to defend the decision if challenged.

**Respiratory protective equipment (section 135)**

**I am entering a confined space where the air is hazardous. What type of respirator do I need?**

Where the concentration of chemical substance in the confined space is hazardous, the appropriate respiratory protective equipment is required.

If the concentration of oxygen is less than 19.5%, a positive pressure respirator is required. A positive pressure respirator will either:

- include an air line and independent 5-minute supply of air; or
- be self-contained and equipped with an audible alarm that sounds when the air supply has 20% of the capacity left or a 5 minute reserve

**Hazard of electric shock (section 136)**

**I have to take electrical equipment into a confined space that has a hazard of electrical shock. What precautions do I take?**

Electrical equipment taken into the confined space has to be:

- Battery operated
- Double insulated
- Bonded to ground and not exceeding 30 volts and 100 volt-amps; or
- Equipped with a ground fault circuit interrupter.

**Example certificate:**

<b>Confined Space Certification</b>			
Date and Time Issued: <u>June 9, 2006 0600h</u>			
Expires (24 hour max): <u>June 10, 2006 0510h</u>			
Equipment to be worked on and work to be performed: _____ <u>Inspection &amp; cold work</u>			
_____ <u>Work not allowed: Hot Work</u>			
➤ Atmospheric checks:			
Time <u>0510</u> h			
Oxygen <u>21</u> %			
LEL (lower explosive limits) <u>0.3</u> %			
Toxics <u>4</u> ppm <u>toluene</u>			
Tester's signature <u>John Doe</u>			
2. Source Isolation (No Entry) pumps or lines disconnected, blocked and locked/tagged out	N/A	Yes	No
	<u>X</u>	___	___
3. Ventilation Modification:			
Mechanical	___	<u>X</u>	___
Natural ventilation only	<u>X</u>	___	___
4. Atmospheric check after Isolation and Ventilation			
Time <u>0515</u> h			
Oxygen <u>21</u> %			
LEL (lower explosive limits) <u>0</u> %			
Toxics <u>0</u> ppm <u>toluene</u>			
Tester's signature <u>John Doe</u>			

**Instructions/Designation**

*Enter with restrictions*

*wear ½ mask organic vapour respirator*

*maintain ventilation*

Prepared By: John Doe (print name)    John Doe (signature)

**Confined Space Certification**

Date and Time Issued: \_\_\_\_\_

Expires (24 hour max): \_\_\_\_\_

Equipment to be worked on and work to be performed: \_\_\_\_\_

➤ Atmospheric checks:

Time \_\_\_\_\_ h

Oxygen \_\_\_\_\_ %

LEL (lower explosive limits) \_\_\_\_\_ %

Toxics \_\_\_\_\_ ppm \_\_\_\_\_

Tester's signature \_\_\_\_\_

2. Source Isolation (No Entry) pumps or lines disconnected, blocked and locked/tagged out	N/A	Yes	No
	_____	_____	_____

3. Ventilation Modification:

Mechanical \_\_\_\_\_

Natural ventilation only \_\_\_\_\_

4. Atmospheric check after Isolation and Ventilation

Time \_\_\_\_\_ h

Oxygen \_\_\_\_\_ %

LEL (lower explosive limits) \_\_\_\_\_ %

Toxics \_\_\_\_\_ ppm \_\_\_\_\_

Tester's signature \_\_\_\_\_

**Instructions/Designation**

Prepared By: \_\_\_\_\_ (print name)    \_\_\_\_\_ (signature)

