Compliance Guide

Topic: **Confined Space**
Applicable Legislation: **Part 5 Confined Spaces**
Applicable unique farming and ranching requirements within the Alberta OHS Code: **None**

Background

Confined and restricted spaces are common on farms and ranches. They might include bins, wells or attics and sometimes even equipment.

Legislation Overview

Part 5 of the OHS Code in Alberta details requirements for working with confined spaces and restricted spaces in the province. No unique farm and ranching requirements exist for Part 5, which means the same rules that apply to other industries, also apply to farms and ranches.

So what are confined and restricted spaces?

Defined:

Confined Space	Means a restricted space which may become hazardous to a worker entering it because of a) An atmosphere that is or may be injurious by reason of oxygen deficiency or enrichment, flammability, explosivity or toxicity, b) A condition or changing set of circumstances within the space that presents a potential for injury or illness, or c) The potential or inherent characteristics of an activity which can produce adverse or harmful consequences within the space.
Restricted Space	Means an enclosed or partially enclosed space, not designed or intended for continuous human occupancy, that has a restricted, limited or impeded means of entry or exit because of its construction.
*Definition from the OHS Code	

Should I treat confined spaces differently than restricted spaces?

Yes! The first step is to identify what spaces might fall under the confined space or restricted space criteria. Take some time to brain storm what types of activities normally occur within those spaces ie. Cleaning out a bin or performing maintenance within a tank. Understanding whether your spaces are confined or restricted, and the activities that occur with them, will help you develop procedures on how to work safely.

Restricted Spaces

To comply with Part 5 of the OHS Code, a special hazard assessment will need to be done before workers enter a restricted space to work. A *competent person* must be tasked with performing this hazard assessment. A written Code of Practice (discussed further in this guide) is not required for restricted spaces under Part 5, but the OHS Code details a few specific requirements you'll need to comply with for workers who enter restricted spaces. These include:

- Provide training to those entering restricted spaces. Training should be provided by a competent person and be recorded.
- Have a system of preventing unauthorized entry (persons who have not been trained or authorized should not enter restricted spaces)
- Consider any traffic hazards
- Develop a plan to respond to an emergency inside a restricted space and perform a rescue if necessary
- Have a competent person designated as a tending worker to communicate with a worker who has entered a restricted space. Workers must not enter without the tending worker
- Ensure a means of safe entry and exit is provided to those workers working in the space or providing rescue

Confined Spaces

A hazard assessment performed by a competent person must also be competed for confined spaces. There are a few extra requirements surrounding confined spaces. The real difference between a restricted space and a confined space is the possibility of the space to become hazardous.

Possible hazardous conditions present on your farm or ranch might include:

- Lack of oxygen
- Hydrogen sulfide
- Ammonia
- Methane
- Carbon dioxide
- Carbon monoxide
- Dust
- Machinery entanglement
- Bacteria or mould
- Pesticide residues

Code of Practice

If workers will be required to enter confined spaces and perform work, you're going to need to establish a written Code of Practice. The Code of Practice should include practices and procedures to be followed when workers work in a confined space. Some of these practices and procedures include:

- **Training**
  Training will need to be conducted on confined space entry and how to respond to an emergency in a confined space. Some workers may only require awareness level training, while other workers may need more comprehensive training to understand monitoring systems or personal protective equipment. There are lots of 3rd party training providers throughout the province, however, there is no requirement for training to be provided by a 3rd party. This means you can develop an in-house training system, given the person providing the training is competent in confined space entry and comfortable in training others. No matter what type of training you choose, ensure that documentation is kept on file.

- **Entry Permit System**
  The entry permit systems used will need to list involved workers, the reason for the work being conducted inside of the space, duties to be performed, and any special safety precautions implemented for the purpose of entry.

- **Personal Protective Equipment (PPE)**
  The type of PPE needed will vary depending on the space being entered, and the hazards that exsit within or outside of the space. Some common PPE that may be necessary will be a full body harness and life line (for rescue or recovery), Respiratory Protective Equipment including either air-supplied or air purifying (if there is a toxic gas or oxygen deficiency within the space), goggles or other types of eye protection or even hearing protection. Your hazard assessment will help you determine what type of PPE will be required for the entry you are conducting.

- **Managing the Control of Hazardous Energy**
  You probably already have a system for lockout tagout to keep workers safe in other areas of your operation, so write the same procedures into your Code of Practice. The goal is to ensure when a worker enters a confined space, they will not become engulfed by grain or fertilizer, entangled in machinery, or come into contact with chemicals, electricity or mechanical energies.

- **Testing the Atmosphere**
  Your confined space hazard assessment may identify a potential atmospheric hazard. Examples of atmospheric hazards might be oxygen deficiency or toxic gases. If a potential atmospheric hazard is identified, a pre-entry atmospheric test of the confined space must be performed. This

means you will need to be equipment with a monitoring device, or devices, and ensure the pre-entry test is documented and testing is then repeated to prevent any additional exposures.

- **Ventilation and Purging**
  If a pre-entry test shows that a hazardous atmosphere exists or is likely to exists, the space must be ventilated, purged or both before entry can occur. If the ventilation or purging cannot be conducted, the worker must be protected from the atmosphere by personal protective equipment appropriate for the conditions.

- **Inerting**
  If a flammable or explosive atmosphere is identified and cannot be eliminated, inerting the atmosphere will be necessary.

- **Emergency Response or Rescue**
  If confined space entries are being conducted, you will need to plan for potential emergencies inside of confined spaces. Under Part 5, a worker must not enter or stay in a confined space or restricted space unless an effective rescue can be performed. Calling 911 will be helpful, but response might be delayed, and emergency responders will likely need extra PPE themselves before entering to perform any rescues. Instead, try to prepare for potential confined space emergencies in advance. This means coming up with a way a rescue could be performed if it were necessary, without entering the confined space yourself.

- **Tending Worker**
  Workers are prohibited from entering a confined space unless a tending worker has been designated by the employer and the tending worker is able to communicate with the worker making the entry. The tending worker should be provided with a means of communication to summon emergency assistance if it is required.

- **Entry and Exit**
  Safe entry and exit needs to be thought of before sending workers to work in a confined space. This might mean providing a platform or latter, or stairs leading up to the entry point.

- **Retaining records**
  Part 5 of the OHS Code requires confined space entry permits and records with testing information to be kept on file for one year if no incident or unplanned event occurred during the entry, or two years if an incident or unplanned event occurred during the entry.

AgSafe Alberta Recommendations

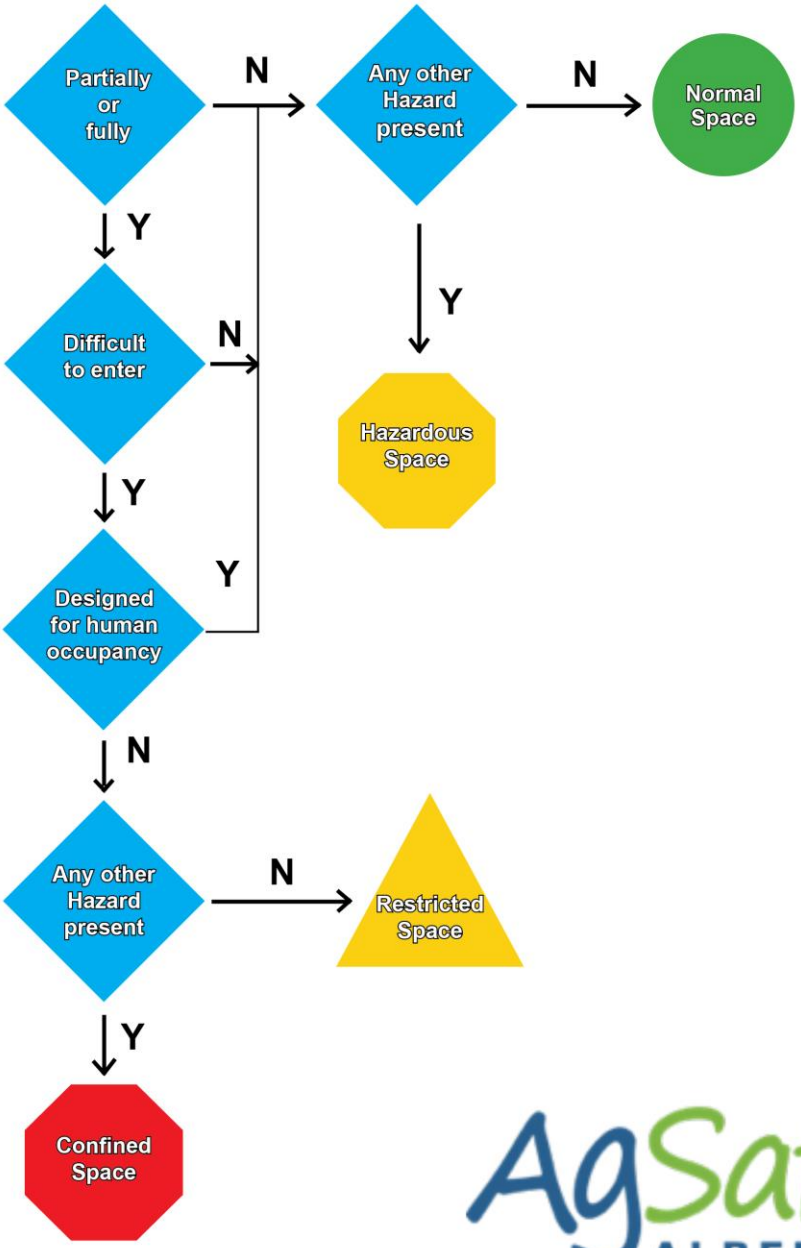
1. *Take a walk around your operation and identify any confined or restricted spaces, based on the OHS criteria.*
    a. *Note: remember to consider the potential of a hazardous condition within the space. Many flat bottom bins may at first glance be considered restricted spaces. However, if a hazardous condition is introduced or might develop, they'll be considered a confined space.*
2. Designate a competent person to perform a hazard assessment for working in or entering either restricted or confined spaces on your operation. What are the hazards associated with entry? How might those hazards be controlled? Is the entry necessary, or is there another way to perform the work?
3. If entry into a confined space is necessary, develop a written code of practice governing confined space entry based off the hazard assessment. The code of practice you come up with will be unique for your operation.
4. In order to meet compliance under Part 5 of the OHS Code, ensure your written code of practice covers the following:
    - training,
    - entry permit systems,
    - personal protective equipment,
    - managing the control of hazardous substances or energy,
    - unauthorized entry,
    - traffic hazards,
    - testing the atmosphere,
    - ventilation and purging,
    - inerting,
    - emergency response,
    - tending worker,
    - entry and exit,
    - and retaining records

Other Documents

Quick Start Guide: Confined Space Management on the Farm
Confined Space Entry Log
Confined Space Entry Permit

Other Resources:	CASA Confined Space Producer Talk: https://www.casa-acsa.ca/download/34-confined-spaces-on-the-farm/ WorkSafe BC https://www.worksafebc.com/en/health-safety/hazards-exposures/confined-spaces/confined-spaces-agriculture/grain-seed-farm
Sources:	Alberta Labour http://www.qp.alberta.ca/documents/OHS/OHS.pdf

Confined Space Decision Tree



Date: March, 6 2019

Revision #: 1