

## Confined spaces

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## General &gt;

**Regulations 61 and 61A of the [Workplace Health and Safety Regulations](#) requires that where a worker has access to a confined space, the employer must develop and have in place procedures to ensure that work can be carried out safely.**

**Definition of confined space**

A confined space is defined as an enclosed or partially enclosed space which:

- is at atmospheric pressure during occupancy (this excludes decompression chambers);
- is not intended or designed primarily as a place of work;
- may have restricted means for entry and exit; and
- may:
  - > have an atmosphere which contains potentially harmful levels of contaminant;
  - > not have a safe oxygen level; or
  - > cause engulfment.

Death and injury in confined spaces can result from many different causes, including hazardous atmospheres, engulfment from solids, liquids or gases, fire and explosions. Some confined spaces restrict air circulation so that hazardous atmospheres can accumulate quickly, and working in a confined area in itself can increase the risk of death or injury.

**Duty of care**

Employers have a duty of care to ensure the health and safety of workers and any other person that may be affected by their work. Part of their duties is a requirement to identify the hazards, assess the risks and control the risks where there is a need to enter and work in a confined space, section 55 and 56 of the [Workplace Health and Safety Act](#).

Before any work is carried out in a confined space, an employer must work through the following steps:

- **Hazard Identification:** identify the confined space/s and the hazards associated with entering and working in those confined spaces. A confined space hazard checklist is available from NT WorkSafe to assist in this process.
- **Risk Assessment:** a competent person must conduct and prepare a risk assessment before authorising entry. For assistance in risk assessment refer to Australian Standard [AS 2865](#) Safe working in a confined space or NT WorkSafe Information Bulletin 14.01.06 Guide to assessing risk.
- **Risk Control:** in implementing the most effective control measure, the principles of the hierarchy of controls must be followed. As the name implies, this principle starts with eliminating the need to enter the confined space, regardless of the reasons to enter. An essential administrative control is the permit system for entry and hot work.

putting safety first &gt;



## Hazards

Hazards that may be encountered in a confined space include:

- Lack or excess of oxygen
- Exposure to toxic gases, vapors and fumes
- Restricted means of access/ egress
- Extreme temperatures eg high humidity levels
- Explosive levels of gases or dusts
- Electrical hazards
- Engulfment (from solids, liquids or gases)
- Mechanical hazards
- Exposure to excessive noise levels
- Biological hazards

The following areas are typically classified as confined spaces, and should be treated with caution (this is not an exhaustive list – if in doubt contact your nearest NT WorkSafe Office):

- Storage and service tanks
- Manhole entries
- Boilers and other pressure vessels
- Pits and sumps
- Silos
- Degreasers and traps
- Sewer and storm water systems
- Ships cargo tanks, cofferdams, double bottoms, bilge systems, etc.

## Specific aspects to be considered for confined space entry

- Entry should only be made into a confined space when absolutely necessary.
- Isolate machinery and electrical power before entry.
- A warning sign must be positioned near the confined space.
- Test for harmful gases/vapors and oxygen deficiency.
- Purge/ventilate confined spaces to remove dangerous fumes.
- A stand-by person must remain outside the space whenever someone is inside.
- Entry must only take place once it is established that all appropriate control measures have been implemented and that an emergency response plan is in place.

A checklist that applies to working in a confined space can be found in Australian Standard [AS 2865](#).

## Equipment used in confined spaces

The following list of equipment required for confined space work is available from hire companies and retail outlets:

- Gas detection instruments
- Forced draught blowers and extractors
- Fume extraction systems
- Fall arrest systems
- Recovery/retrieval systems
- Breathing apparatus
- Safety switches and Residual Current Device (RCD) protection
- Intrinsically safe lighting (for flammable atmospheres)

## Code of practice

Codes of Practice are approved under the *Workplace Health and Safety Act* for the purpose of providing practical guidance. The approved Code of Practice: Australian Standard AS 2865 – Safe working in a confined space, provides guidance in relation to working in confined spaces:

[Australian Standards](#) are available from the Territory Construction Association, phone 8922 9666. Australian Standards can be viewed online by visiting the Northern Territory Library, Parliament House, phone 8999 7177.

## NT WorkSafe >

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