

Confined spaces

02.01.05

Emergency planning & rescue >

This information bulletin has been developed to assist employers, workers and contractors with their planning for emergency situations that may arise when working in a confined space. This information bulletin is to be read in conjunction with NT WorkSafe Information Bulletin 02.01.01 Confined spaces - general.

Legislation

Regulation 61A of the [Workplace Health and Safety Regulations](#) places the responsibility on the employer to control the risks resulting from entry into a confined space. It is essential that a risk assessment is undertaken by a competent person (refer Australian Standard [AS 2865](#)). Amongst other considerations the risk assessment is to take into account emergency and rescue procedures.

Introduction

An effective safety management program for confined space entry attempts to identify the hazards and control all risks to which workers are likely to be exposed. Therefore a safe system of work is essential in the control of these risks. If the system fails and a hazard goes unnoticed, or the risk assessment process considers the hazard of low risk, or someone ignores or forgets to follow a procedure, or a piece of mechanical equipment fails - an emergency may result.

In an emergency, the spontaneous reaction to immediately enter and attempt a rescue from a confined space, may lead to the death or serious injury of those attempting the rescue. An emergency (as described in the Concise Oxford Dictionary) is...*a sudden state of danger or conflict requiring immediate action*. Examples of emergency situations that may arise in confined spaces include: fires; injuries to the entrants; and sudden changes in physical or atmospheric conditions.

Emergency planning

An effective response plan recognises that there are different degrees of emergencies and provides for a measured response appropriate to the magnitude of the incident. A framework for emergency planning can be established by identifying and characterizing the types of emergencies that are likely to occur in a confined space. There are varying degrees of confined space emergencies and the response to some, is more critical than the response to others.

While there are any number of ways of classifying confined space emergencies, the following identifies five broad categories that should be considered when planning.

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Evacuation situations

Evacuation is perhaps the lowest level of emergency response. Conditions that lead to an evacuation often arises in a manner that allows the entrants to escape without extraordinary effort. Examples may include:

- An alarm level is sounded on the gas detector as the atmospheric condition changes e.g. a decrease in oxygen levels or an increase in toxic levels.
- The stand-by person observes a potential problem that may affect the entrants e.g. ventilation failure or a hazardous substance spill.
- The entrants themselves believe they are in danger because they're experiencing physiological difficulties such as sweating, headaches, nausea or heat stress.

Self rescue

The second category of emergency incidents are those where an entrant has received moderate injury. Typical injuries may include; sprains, minor fractures etc. This means that the injured entrant is still conscious and the degree of injury is such that they can still evacuate the space unaided.

Entry to provide initial treatment

These are situations where there is severe trauma or another problem that must be attended to before the entrant can be removed from the space e.g. broken bones that must be immobilized before moving the person. The entrant may or may not be conscious, but is not threatened by other acute hazards such as a hazardous atmosphere.

Assisted rescue from outside

Assisted rescue from outside usually involves a single entrant who may or may not be conscious. The entrant wears a full-body harness and is connected to a retrieval system located outside the space. In an emergency, the stand-by person operates the equipment, such as the rope rescue set and tripod, to pull the entrant from the space without the need for entry by additional personnel.

Rescue requiring emergency entry

This is the most critical type of incident. The size, shape or configuration of the space frequently prevents rescue from outside. There may be more than one entrant, and all or some of them may be unconscious. If the entrants are not breathing, time is critical. Rescuers themselves may be threatened by hazards in the space such as high concentrations of contaminated air or oxygen deficiency. They may also encounter physical and psychological stress as they race against time to get the unconscious person from the space.

Summary

In planning for emergencies and rescues that arise from confined space entry the following procedures are recommended:

- Emergency and rescue procedures should be developed in consultation with relevant agencies such as the [NT Fire and Rescue Services](#), [St John Ambulance](#) etc.
- Employees likely to form a rescue team should be competently trained in the use of breathing apparatus, retrieval systems, artificial resuscitation, first aid techniques and fire control equipment. This training may be in excess of the confined space safety training already provided.

- When working in remote localities there may not be any emergency service available. Therefore, your assessment should also consider the type of communications and transport to the nearest medical facility or hospital.

Remember – the cardinal rule for emergency planning is to start before the incident occurs, not when it occurs.

Further information

AS 2865 – Safe working in a confined space

NT WorkSafe Information Bulletins 02.01 Confined Spaces series.

[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 >

GPO Box 1722

Darwin NT 0801

Telephone: 1800 019 115
Facsimile: (08) 8999 5141
Email: [ntworksafe @nt.gov.au](mailto:ntworksafe@nt.gov.au)
Website: www.worksafe.nt.gov.au