

Australian Standard™

## The demolition of structures

This Australian Standard was prepared by Committee BD-059, Demolition of Structures. It was approved on behalf of the Council of Standards Australia on 13 July 2001 and published on 13 September 2001.

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The following interests are represented on Committee BD-059:

Construction, Forestry, Mining and Energy Union  
Consumers Federation of Australia  
Demolition Contractors Association of Australia  
Demolition Contractors Association of New South Wales  
Demolition Contractors Association of Victoria  
Department of Urban Affairs and Planning (NSW)  
Master Builders Australia  
TAFE New South Wales  
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Australian Standard™

## The demolition of structures

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## PREFACE

This Standard was prepared by the Standards Australia Committee BD-059, Demolition of Structures, to supersede AS 2601—1991.

The objective of this Standard is to provide guidance to planners, engineers, contractors and interested parties on the planning and procedures for the demolition of a structure.

In revising the Standard, the Committee has taken into account experience gained in the application of the second edition, the relative prevalence of the types of structures now being demolished and the increasing trend towards the mechanization of demolition procedures. An increase of public awareness and worker expectations regarding safety issues, as well as increased concern regarding protection of the environment have also been taken into account as well as ecologically sustainable developments. Also addressed has been the changing face of the construction industry in terms of legislative requirements and the trend towards privatization of certifiers and the decrease in the input from regulatory authorities.

The following brief outline indicates the principal changes from the previous edition.

- 1 **Reorganization of contents** The Standard has been reorganized so as to be more performance based. The prescriptive items regarding the method for demolishing certain structures has been relocated to an informative appendix, as the committee realizes that there may be more appropriate means of achieving the safe falling of a structure, which requires the contractor to understand and apply risk management when considering a new job. The prescriptive requirements in relation to protection and the health and safety of employees and the public has been retained.
- 2 **Planning and execution** The Standard places an emphasis on the planning and execution of a demolition project. The requirements for planning and execution have been expanded upon, which has resulted in the addition of a new Section (see Section 2).
- 3 **Regulating Authorities** The Standard has taken account the varying requirements of regulating authorities in the States and Territories, and has addressed this by the removal of regulatory requirements from the main body of the Standard. An appendix has been added for guidance. The Appendix places emphasis on the demolition contractor to ensure work is carried out in accordance with the requirements of the State or Territory, as applicable. The guidance is current at the time of publication. However, it is the demolition contractor's duty to ensure that the relevant requirements of authority and qualifications are current.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is for information and guidance only.

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STANDARDS AUSTRALIA

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**Australian Standard**

**The demolition of structures**

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## SECTION 1 SCOPE AND GENERAL

### 1.1 SCOPE

This Standard sets out requirements and provides guidance to planners, owners, engineers, contractors and interested parties on the planning and procedures for the demolition of a structure.

The Standard also provides advice and guidance on a range of controlled demolition methods so that the risk —

- (a) to the health and safety of the public and site personnel and occupiers of an adjoining property;
- (b) of damage to the immediate environment; and
- (c) of damage to adjoining premises

will be minimized.

This Standard applies to the demolition of buildings and structures. Compliance with the conditions herein does not necessarily mean compliance with all of the parties' obligations.

NOTE: Some States/Territories require demolition contractors to be licensed.

### 1.2 REFERENCED AND RELATED DOCUMENTS

#### 1.2.1 Referenced documents

The following documents are referred to in this Standard:

AS

|        |                                                               |
|--------|---------------------------------------------------------------|
| 1170   | Minimum design loads on structures                            |
| 1170.2 | Part 2: Wind loads                                            |
| 1270   | Acoustics — Hearing protectors                                |
| 1319   | Safety signs for the occupational environment                 |
| 1336   | Recommended practice for occupational eye protection          |
| 1337   | Eye protectors for industrial applications                    |
| 1418   | Cranes (including hoists and winches)                         |
| 1418.1 | Part 1: General requirements                                  |
| 1418.5 | Part 5: Mobile and vehicle-loading cranes                     |
| 1470   | Health and safety and work — Principles and practices         |
| 1674   | Safety in welding and allied processes                        |
| 1674.1 | Part 1: Fire precautions                                      |
| 1725   | Galvanized rail-less chainwire security fences and gates      |
| 1940   | The storage and handling of flammable and combustible liquids |
| 2124   | General conditions of contract                                |
| 2187   | Explosives — Storage, transport and use                       |
| 2187.2 | Part 2: Use of explosives                                     |

## AS

|              |                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------|
| 2294         | Earthmoving machinery—Protective structures                                                                      |
| 2294.1       | Part 1: General                                                                                                  |
| 2294.2       | Part 2: Laboratory tests and performance requirements for roll-over protective structures                        |
| 2294.3       | Part 3: Laboratory tests and performance requirements for falling-object protective structures                   |
| 2294.4       | Part 4: Specifications for deflection-limiting volume                                                            |
| 2321         | Short-link chain for lifting purposes (non-calibrated)                                                           |
| 2430         | Classification of hazardous areas                                                                                |
| 2430.1       | Part 1: Explosive gas atmospheres                                                                                |
| 2430.3.2     | Part 3.2: Specific occupancies—Vehicle workshops, vehicle parking, fuel dispensing stations and aircraft hangars |
| 2436         | Guide to noise control on construction, maintenance and demolition sites                                         |
| 2545         | Subcontract conditions                                                                                           |
| 2550         | Cranes — Safe use                                                                                                |
| 2550.1       | Part 1: General requirements                                                                                     |
| 2550.4       | Part 4: Tower cranes                                                                                             |
| 2550.5       | Part 5: Mobile and vehicle-loading cranes                                                                        |
| 2550.6       | Part 6: Guided storing and retrieving appliances                                                                 |
| 2550.7       | Part 7: Builders' hoists and associated equipment                                                                |
| 2550.10      | Part 10: Elevating work platforms                                                                                |
| 2550.13      | Part 13: Building maintenance units                                                                              |
| 2550.16      | Part 16: Mast climbing work platforms                                                                            |
| 2865         | Safe working in a confined space                                                                                 |
| 3569         | Steel wire ropes                                                                                                 |
| 4000         | General condition of contract                                                                                    |
| 4801         | Occupational health and safety management systems—Specification with guidance for use                            |
| 4901         | Subcontract conditions                                                                                           |
| 4576         | Guidelines for scaffolding                                                                                       |
| AS/NZS       |                                                                                                                  |
| 1576         | Scaffolding (all parts)                                                                                          |
| 1715         | Selection, use and maintenance of respiratory protective devices                                                 |
| 1716         | Respiratory protective devices                                                                                   |
| 1801         | Occupational protective helmets                                                                                  |
| 1891         | Industrial fall-arrest systems and devices                                                                       |
| 1891.1       | Part 1: Safety belts and harnesses                                                                               |
| 1891.2 (Int) | Part 2: Horizontal lifeline and rail systems                                                                     |
| 1891.3       | Part 3: Fall-arrest devices                                                                                      |
| 2430         | Classification of hazardous areas                                                                                |
| 2430.3.1     | Part 3.1: General                                                                                                |
| 2430.3.2     | Part 3.2: Vehicle workshops, vehicle parking, fuel dispensing stations and aircraft hangars                      |
| 2430.3.3     | Part 3.3: Flammable liquids                                                                                      |
| 2430.3.4     | Part 3.4: Flammable gases                                                                                        |
| 2430.3.5     | Part 3.5: Refineries and major processing plants                                                                 |
| 2430.3.8     | Part 3.8: Surface coatings and adhesives                                                                         |

## AS/NZS

- 2161 Occupational protective gloves
- 2161.2 Part 2: General requirements
- 2161.3 Part 3: Protection against mechanical risks
- 2161.4 Part 4: Protection against thermal risks (heat and fire)
- 2161.5 Part 5: Protection against cold
- 2161.7.1 Part 7.1: Protection against cuts and stabs by hand knives — Chainmail gloves and arm guards
- 2210 Occupational protective footwear
- 2210.1 Part 1: Guide to selection, care and use
- 2210.2 Part 2: Requirements and test methods
- 2550 Cranes — Safe use
- 2550.9 Part 9: Vehicle hoists
- 3012 Electrical installations — Construction and demolition sites
- NOHSC
- 2002 WorkSafe Australia — Code of practice for the safe removal of asbestos

**1.2.2 Related documents**

The following documents provide additional information:

BS

6187 Code of practice for demolition

CAVILL B.A., Demolition of prestressed concrete structures. VSL Prestressing (Aust) Pty Ltd, Sydney, 1988.

NHMRC Approved Occupational Health Guides

NOHSC

7019 National Guideline for Occupational Health and Safety for the Operation of Load Shifting Equipment and Other Types of Specified Equipment

Welding Institute of Australia — Technical Note No. 7

**1.3 DEFINITIONS**

For the purpose of this Standard, the following definitions apply.

**1.3.1 Approval/approved**

The granting of formal permission in relation to an application or proposal, with or without conditions, given by an approval authority under statutory power detailed in legislation, or by a competent person, where such an approval authority does not exist.

**1.3.2 Clear space**

The unobstructed area surrounding the building within the boundaries of the site.

**1.3.3 Competent person**

A person who has acquired through training, qualification, experience, or a combination of these, the knowledge and skills enabling that person to perform the task required by a recognized Standard.

**1.3.4 Debris**

Material resulting from demolition or stripping, which is larger than rubble.

**1.3.5 Demolition**

The complete or partial dismantling of a building or structure, by pre-planned and controlled methods or procedures.

### **1.3.6 Demolition site**

The area within an area, which has been designated and defined by a boundary, within which the practice of demolition will occur.

### **1.3.7 Demolition drop zone**

Zone for the disposal of demolition rubble and debris, which is clear of obstruction and isolated from site personnel and the public, to allow objects to fall freely.

### **1.3.8 Demolition exclusion zone**

The zone or area, below, at and above ground level, from which all unauthorized people are excluded during demolition activities, to protect them from injury or harm.

### **1.3.9 Guarded**

Protected or enclosed by guardrails, safety barriers, or the like.

### **1.3.10 Hazardous Substances Management Plan**

A plan provided by the property owner, the owner's agent, or the person on whose behalf the demolition work is done, which identifies all hazardous substances that may affect the health of site personnel or members of the public.

### **1.3.11 Hazard**

A source or a situation with a potential for harm, in terms of human injury or ill health, damage to property, damage to the environment or a combination of these.

### **1.3.12 Height of a structure**

The height from the finished ground level to the highest part of the structure to be demolished.

### **1.3.13 Hoarding**

A high temporary fence or structure enclosing a demolition site, or a building site during construction or alterations, to restrict access, prevent theft, and provide side but not overhead protection to passers-by.

### **1.3.14 Incident**

Any unplanned event resulting in, or having a potential for, injury, ill health, damage, or other loss.

### **1.3.15 Immediate environment**

The properties, including public thoroughfares and spaces, having common boundaries with the demolition site, and where the property is a public thoroughfare, including the properties directly opposite the demolition site.

### **1.3.16 Induced collapse demolition**

Methods of demolition in which the structural stability of the whole or part of the structure is deliberately altered so that collapse ensues suddenly (includes felling by wire ropes).

### **1.3.17 Load-shifting equipment**

#### **1.3.17.1 Cableway/flying fox**

An arrangement where a wire rope is suspended between two tower structures, on which is supported a carriage or fox from which a load may be suspended.

**1.3.17.2 Front-end loader/backhoe**

Self-propelled wheeled machine with a main structural support designed to carry both a front-mounted bucket loading mechanism and a rear-mounted backhoe.

NOTE: When used in the backhoe mode, the machine normally digs below ground level with bucket motion towards the machine; the bucket lifts, swings, and discharges material while the undercarriage is stationary. When used in the loader mode, the machine loads or excavates through forward motion of the machine, and lifts, transports or discharges material.

**1.3.17.3 Front-end loader**

Self-propelled wheeled machine with an integral front-mounted bucket-supporting structure and linkage, which loads or excavates through forward motion of the machine, and lifts, transports and discharges material.

**1.3.17.4 Front-end loader of the skid/steer type**

Self-propelled crawler or wheeled machine in which steering is accomplished by skidding or reversing the track or wheels on one side of the machine. Also with an integral front-mounted bucket-supporting structure and linkage, which loads or excavates through forward motion of the machine, and lifts, transports and discharges material.

**1.3.17.5 Excavator**

Self-propelled crawler or wheeled machine with an upper structure capable of a minimum of 360° rotation, which excavates, elevates, swings and discharges material by the action of a bucket fitted to the boom and arm or telescoping boom, without moving the chassis or undercarriage during any part of the working cycle of the machine.

**1.3.17.6 Dragline**

A lattice boom crane configuration supporting a bucket or scoop, which is thrown outwards and retrieved through materials by a drag cable arrangement.

**1.3.17.7 Forklift truck**

A powered industrial truck equipped with a mast and an elevating load carriage to which is attached a pair of forkarms or other load-holding attachment.

**1.3.17.8 Dozer**

Items of plant composed of wheeled or crawler tractors with a dozer blade mounted at the front-end of the machine.

**1.3.18 Manual demolition**

Demolition techniques involving the use of hand-held tools such as picks, sledgehammers, jackhammers, and the like.

**1.3.19 Mechanical demolition**

Demolition techniques involving the direct use of mechanical plant such as cranes, load-shifting equipment, and the like.

**1.3.20 Rubble**

Broken pieces of the building fabric with no single piece larger than 0.5 m in any dimension, or heavier than 50 kg.

**1.3.21 Sequential demolition**

Methods of demolition in which elements and members are dismantled sequentially in the reverse order to that in which they were constructed or erected (includes manual and mechanical methods).

### 1.3.22 Shoring

A system of temporary supports to maintain stability and prevent movement.

### 1.3.23 Specified cranes

#### 1.3.23.1 Bridge or gantry cranes (remote operation only)

- (a) *Bridge* A crane comprising a bridge beam mounted at each end to an end carriage, capable of travelling along elevated runways and having one or more hoisting mechanisms arranged to traverse across the bridge.
- (b) *Gantry* A crane comprising a bridge beam, supported at each end by legs mounted on end carriages, capable of travelling along runways, at surface or deck level, and which has a crab with one or more hoisting units arranged to travel across the bridge.

#### 1.3.23.2 Vehicle loading cranes

Cranes mounted on a vehicle for the principal purpose of loading and unloading such a vehicle—capacity less than 10 metric tonnes.

#### 1.3.23.3 Non-slewing, non-articulating mobile cranes

Non-slewing or non-articulating mobile cranes not exceeding three tonnes capacity and including vehicle tow truck operations.

### 1.3.24 Stripping

The removal from a building of internal fittings, fixtures, services and non-loadbearing elements.

### 1.3.25 Work plan

Specifically prepared document that details the methods and procedures for the safe demolition of the structure.

## 1.4 NEW OR ALTERNATIVE METHODS

This Standard shall not be interpreted as preventing the use of alternative methods. Such methods may be used provided that safety standards are not less than those provided in this Standard.

## 1.5 HEALTH AND SAFETY

### 1.5.1 Public

#### 1.5.1.1 General

People walking or driving past any demolition work shall be protected from falling objects, projections, dust, noise, mechanical plant, including trucks entering and leaving the site, and welding and cutting sparks, at all times while work is in progress. Undue noise during extended working hours shall be avoided.

Throughout the demolition operations, safety shall be maintained in public places adjoining the site. Safety of the public shall be maintained by providing street closures, hoardings, scaffolding and other types of overhead protection, either singly or in combination, in accordance with the requirements of this Standard.

#### 1.5.1.2 Lighting

Lighting of public places adjoining the site shall be provided so that obstructions resulting from the demolition operations are clearly visible at all times.

### 1.5.1.3 *Falling materials*

In both the planning and execution of the demolition work, action shall be taken to prevent demolished materials from falling freely outside the boundaries of the demolition site or exclusion zone.

Where the site adjoins a public thoroughfare, the common boundary between the two shall be fenced in accordance with Clause 1.5.1.4 and Clause 1.5.1.5, and shall be provided with such other protective structures as may be required by Clauses 1.5.1.1, 1.5.1.7 and 1.5.1.8. These actions shall be considered as providing protection to the public from injury from falling rubble and debris.

Where the demolished materials are to be lowered directly onto, or into a public place, a specific ground area shall be allocated for these activities. Barriers shall be erected and maintained around the area to prevent the public from entering. An observer may be also used to monitor the operation.

### 1.5.1.4 *Security fencing*

Security fencing shall be provided around the perimeter of the demolition site, including any additional precautionary measures taken to prevent unauthorized entry to the site at all times during the demolition period. Security fencing shall be the equivalent of chain wire as specified in AS 1725.

### 1.5.1.5 *Hoardings*

Where the demolition site adjoins a public thoroughfare, the common boundary between them shall be fenced for its full length with a hoarding, unless the least horizontal distance between the common boundary and the nearest parts of the structure is greater than twice the height of the structure (see Figure 1.1).

The hoarding shall be constructed of solid materials to a height of not less than 1.8 m adjacent to the thoroughfare.

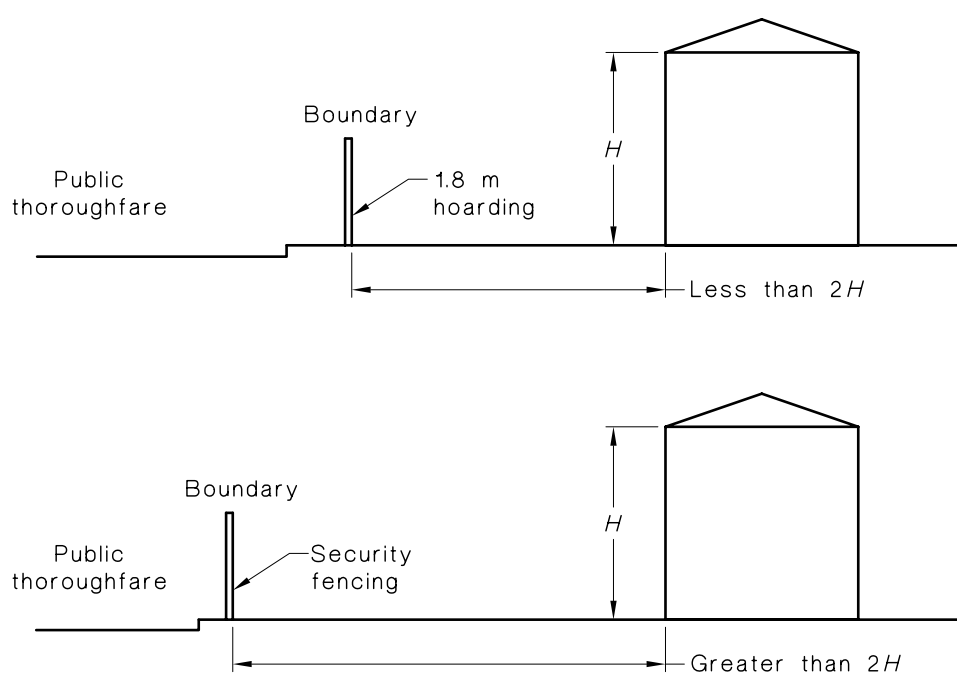


FIGURE 1.1 HOARDING/SECURITY FENCE

### 1.5.1.6 Warning notices

Notices lettered in accordance with AS 1319 and displaying the words 'WARNING DEMOLITION IN PROGRESS', or a similar message, shall be fixed to the fencing at appropriate places to warn the public.

### 1.5.1.7 Scaffolding

Where required by Clause 1.5.1.1, the scaffolding shall be heavy-duty scaffolding complying with AS 1576 (all parts), or its functional equivalent. The scaffolding shall —

- (a) enclose the work area;
- (b) be impenetrable and able to withstand the impact of rubble; and
- (c) be maintained and inspected on a regular basis.

NOTE: The scaffolding is intended to be a protection only against falling or rebounding rubble and/or to provide a safe working platform for personnel. It is not intended that it be used as a storage area for demolished material. AS 4576 may be used as guidance.

### 1.5.1.8 Overhead protection

Where a demolition site adjoins a public thoroughfare with a footpath alongside the common boundary then, in addition to the hoarding required by Clause 1.5.1.5, the footpath shall be covered by an overhead protective structure and the facing facade protected by heavy-duty scaffolding, unless either —

- (a) the vertical height above footpath level of the structure being demolished is less than 4.0 m; or
- (b) the least horizontal distance between footpath and the nearest part of the structure is greater than half the height of the structure.

The overhead structure shall consist of a horizontal platform of solid construction and vertical supports, and the platform shall —

- (i) extend from the common boundary to the edge of the carriageway for the full length of the boundary;
- (ii) have a clear height above the footpath of not less than 2.1 m;
- (iii) terminate at the edge of the carriageway with a continuous solid upstand projecting not less than 0.5 m above the platform surface; and
- (iv) together with its supports, be designed for a uniformly distributed live load of not less than 7 kPa.

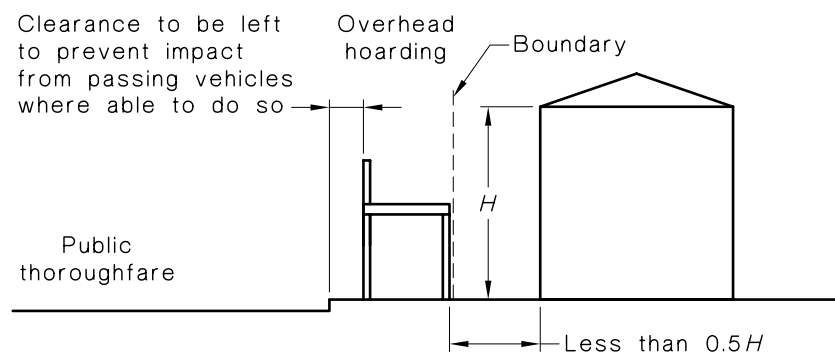


FIGURE 1.2 OVERHEAD PROTECTION

## 1.5.2 Site personnel

### 1.5.2.1 Safety of work areas

Every access and egress and work area, and all openings and exposed edges, shall be illuminated and protected.

### 1.5.2.2 Personal protective clothing and devices (PPE)

While on the site, every worker and every visitor shall wear a safety helmet complying with AS/NZS 1801. Also, every worker shall wear protective clothing and where appropriate, the following protective equipment:

- (a) Eye protectors complying with AS 1336 and AS 1337.
- (b) Respirators complying with AS/NZS 1715 and AS/NZS 1716.
- (c) Hearing protection complying with AS 1270.
- (d) Industrial safety gloves or mittens complying with AS/NZS 2161.
- (e) Safety footwear complying with AS/NZS 2210.1 and AS/NZS 2210.2.
- (f) Safety footwear complying with AS/NZS 2210.1 and AS/NZS 2210.2.
- (g) Industrial safety belts or harnesses complying with AS/NZS 1891 (all parts).
- (h) Highly visible clothing.

### 1.5.2.3 Working in confined spaces

Requirements and procedures should be in place to prevent occupational illness, injuries and fatalities to persons entering and working in confined space. Confined spaces should be made safe for those entering confined spaces, and the likely hazards associated with such work areas and the relevant safe work processes necessary to deal with these hazards should be highlighted.

The responsibilities before entry into a confined space and during the entire operation should be emphasized. Such responsibilities cover conditions of work not only for an organization's own employees but also for any other contractors or persons on the premises. Steps shall be taken to eliminate or control hazards. All persons involved in the entry of a confined space shall be trained and instructed on the nature of the hazard and the precautions to be followed (see AS 2865).

### 1.5.2.4 Cutting and welding

Where high temperature cutting or welding is to be carried out, the precautionary measures given in AS 1674.1 shall be observed, including the following:

- (a) Any fire hazard (including the presence of flammable or combustible liquids, gases, vapours, dusts, fibres or substances) within 15 m from the hot work shall be identified and controlled.
- (b) Relevant hazards that may exist outside the area referred to in Item (a) above shall be taken into consideration.
- (c) The possibility of changing circumstances during the progress of the hot work, and whether they may render the area unsafe for the work to continue, shall be taken into consideration.
- (d) The hot work area shall be ventilated properly.
- (e) The equipment, including emergency firefighting equipment, shall be located in a suitable place.
- (f) The hot work area shall be isolated.

- (g) A safe entry into and exit from the hot work area shall be provided.
- (h) Testing shall be carried out for the presence of any flammable gas or flammable vapour in the atmosphere within the area referred to in Item (a) above and in any pipe, drum, tank, vessel and piece of equipment adjacent to or involved in the hot work.
- (i) The concentration of any flammable gas and flammable vapour, as determined by the testing required by Item (h) above, shall be less than 5% of its lower explosion limit (LEL).
- (j) The responsible officer shall make a thorough inspection of the site.
- (k) When the responsible officer is satisfied that the hot work can safely proceed, that person shall issue a hot work permit
- (l) Where specified by the hot work permit, a firewatcher shall be stationed in the area near the hot work, for the purpose of safeguarding personnel and equipment.
- (m) The hot work shall not start until compliance with all of the above requirements has been carried out.

Where it is necessary to cut or weld material that is covered with lead-base paints or other paints, coatings, or plating capable of producing noxious or other harmful fumes, the operators of torches and related equipment shall be provided with and required to use respiratory equipment. Other site personnel within the vicinity of such operations shall be similarly protected.

NOTE: Welding Institute of Australia Technical Note No. 7, provides advice.

#### **1.5.2.5 Fire protection**

A fire hydrant service or a fire hose reel service that is in a building shall be available at all times during the demolition of the building, so that all remaining storeys not under demolition are served, unless an alternative system is provided. Access to the fire protection service, including any booster fitting, shall be maintained at all times and where the existing fire protection service is not available during demolition, a fire main, or dry riser shall be provided for multistorey buildings.

Portable fire extinguishers shall be maintained in an operable condition at all times in working areas and areas not protected by other fire services.

#### **1.5.2.6 First aid**

Facilities and equipment for administering first aid shall be provided.

#### **1.5.2.7 Amenities**

Amenities for site personnel shall be provided

#### **1.5.2.8 Electrical safety**

Temporary electrical installations that supply electricity to appliances and equipment used for the execution of the demolition works shall comply with AS/NZS 3012 and any additional requirements of the electrical supply authority.

### **1.6 HAZARDOUS SUBSTANCES**

#### **1.6.1 Audit**

A competent person shall determine the presence of hazardous substances or conditions in the structure, and all parts of the site, which may be hazardous to the health of the site personnel or the public if disturbed by the stripping or demolition. The nature and location of each hazard shall be recorded and both the record and proposed method on controlling the hazards shall be recorded in a Hazardous Substances Management Plan and included in

the contract documentation. The Hazardous Substances Management Plan shall include, but not be limited to, location and quantity of each substance, the method in which that substance is to be controlled or removed, the methods of monitoring exposure limits, and the handling, storage and disposal procedures to an approved landfill or approved storage area.

The purpose of the audit is to identify the location, extent, accessibility, type and condition of hazardous substances such as asbestos, PCBs, lead paint, underground storage tanks, chemical and other hazardous containing materials in relation to the proposed demolition or stripping work, and to assess the risk to employees and other persons. The audit shall be supported by a laboratory analysis of the suspected hazardous substances.

Noxious dust can be produced by the cutting or breaking up of materials containing asbestos or other fibres.

Toxic fumes can be produced by the burning of certain inorganic substances such as some types of paint or of synthetic substances such as some types of plastics.

Particular concentrations of vapours remaining from volatile liquid storages, and of dust from some granular materials, ignite explosively when exposed even to a small heat source such as a spark or a glowing cinder.

NOTE: AS/NZS 2430.1, AS/NZS 2430.3, AS/NZS 2430.3.1, AS/NZS 2430.3.2, AS/NZS 2430.3.3, AS/NZS 2430.3.4, AS/NZS 2430.3.5, AS/NZS 2430.3.7 and AS/NZS 2430.3.8 provide guidance on such matters

### **1.6.2 Removal**

Where hazardous substances have been recorded in accordance with Clause 1.6.1, or subsequently uncovered, all site personnel shall be immediately informed of their presence and appropriate control measures implemented. Additional measures for public safety shall be implemented. No demolition shall proceed in the immediate vicinity until the risks have been assessed by a competent person. Work may only proceed if it is deemed safe to do so or if the hazardous substances have been removed in accordance with the Hazardous Substances Management Plan.

Hazardous substances, including asbestos, shall be removed only by competent persons.

## **1.7 PROTECTION**

### **1.7.1 Protection of adjoining buildings**

#### **1.7.1.1 Access and egress**

Safe access to and egress from adjoining buildings shall be maintained at all times for the duration of the demolition work.

#### **1.7.1.2 Damage and structural integrity**

No demolition activity shall cause damage to, or adversely affect, the structural integrity of adjoining buildings.

Consideration shall be given to the use of shoring, and underpinning, and to changes in the soil conditions as a result of demolition, and appropriate action taken

#### **1.7.1.3 Vibration and concussion**

The effects of vibration and concussion on adjoining buildings and their occupants shall be minimized, as far as practicable, by selecting demolition methods and equipment appropriate to the circumstances.