

Australian Standard™

Explosives—Storage and use

Part 2: Use of explosives



This Australian Standard was prepared by Committee CE-005, Explosives. It was approved on behalf of the Council of Standards Australia on 3 August 2005. This Standard was published on 2 February 2006.

The following are represented on Committee CE-005:

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Australasian Institute of Mining and Metallurgy
Australian Chamber of Commerce and Industry
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Part 2: Use of explosives

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PREFACE

This Standard was prepared by the Standards Australia Committee CE-005, Explosives, to supersede AS 2187.2—1993, *Explosives—Storage, transport and use, Part 2: Use of explosives*.

The objective of this Standard is to provide requirements, information, and guidance for the use of explosives, the management of a site where explosives are used and the destruction of excess or deteriorated explosives, which ensure risks are acceptable minimized. This Standard is for reference by manufacturers, suppliers, and users of explosives. In addition, it is for reference by regulators and beneficiaries of activities involving explosives.

The major changes in this revision include the following:

- (a) Inclusion of requirements for large operations.
- (b) Adoption of a risk management approach with a greater emphasis on planning.
- (c) Use of the term ‘close proximity’ in lieu of specific distances.
- (d) Where appropriate, removal of reference to approval by authorities.
- (e) Inclusion of requirements for electronic and remote blasting.
- (f) Significant changes to ground vibration and airblast overpressure assessment.
- (g) Inclusion of a new appendix covering exclusion zones.
- (h) Inclusion of requirements for the use of explosives in atmospheres greater than atmospheric pressure.

This Standard is one of a series which includes the following:

AS

- 2187.0 Explosives—Storage, transport and use—Terminology
- 2187.1 Explosives—Storage, transport and use—Storage
- 2187.2 Explosives—Storage, transport and use—Use of explosives (this part)
- 2187.3 Explosives—Storage, transport and use—Pyrotechnics—Shopgoods fireworks—
Design, performance and testing
- 2187.4 Explosives—Storage, transport and use—Pyrotechnics—Outdoor displays

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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FOREWORD

Explosives are a concentrated source of energy, and because of their chemical properties are capable of inflicting death or injury to persons or damage to property or the environment. Similarly, they present a security problem if someone has unlawful possession of explosives or if explosives are in the hands of the inexperienced or those with ill intent.

Explosives thus present a high risk with potentially severe consequences unless stored, transported and used by competent persons in a safe and secure manner.

This Standard provides information on hazards presented by explosives and ways to manage and control the identified risks at a level that is acceptable to the community and in accordance with safe and secure industrial practice.

It is highly recommended that persons required to handle and use explosives are familiar with AS/NZS 4360, *Risk management*. Similarly, it is recommended that management plans, used to facilitate safe work procedures, plans and processes dealing with explosives, be based on AS/NZS 4804, *Occupational health and safety management systems—General guidelines on principles, systems and supporting techniques*.

For the purpose of this Standard it is a fundamental requirement that persons are competent and authorized by their employer to handle and use explosives. Competence, with respect to handling and use of explosives, is recognized through compliance with relevant legislation and by having documentation confirming one or both of the following:

- 1 Current and valid shot firing ticket or licence applicable in the relevant State or Territory.
- 2 Currency with relevant competencies or qualification, attained through a national training package (i.e., endorsed under the national training system of the Department of Education, Science and Training).

Employers of persons who handle and use explosives also have responsibilities with regard to the safe and secure management of explosives by ensuring that systems are in place through legislation and their management plan (if required) to provide a safe place of work. From a security viewpoint, the presence and security of explosives on a worksite is the ultimate responsibility of the employer.

Frequent reference is made in this Standard to the risk management process, risk analysis and risk controls; it is fundamental that persons using or referencing this Standard have a basic understanding of these terms.

Some hazards or risk controls associated with the handling and use of explosives may not be referenced in this Standard. This is not a deliberate omission but the application of proper risk management techniques should be sufficient for such hazards to be identified for specific or unusual situations relevant to individual work sites.

STANDARDS AUSTRALIA

Australian Standard
Explosives—Storage and use

Part 2: Use of explosives

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out the requirements and precautions for the use of factory-made commercially available explosives and certain explosives mixed or assembled at sites.

This Standard does not apply to the following:

- (a) Safety ammunition.
- (b) Propellant powders.
- (c) Pyrotechnics, including fireworks, rockets, fog signals or the like.
- (d) Purpose-designed and manufactured military explosives.

NOTE: This Standard should not be regarded as overriding statutory requirements, including licensing, but may be construed as a set of working rules to be used in conjunction with such requirements.

1.2 APPLICATION

This Standard shall be read in conjunction with AS 2187.0 and the definitions therein apply to this document except where a definition is given herein.

1.3 REFERENCED DOCUMENTS

Where a provision of any of the referenced documents (other than legislation) in this Standard is inconsistent with any provision of this Standard, the provisions of this Standard takes precedence.

The following documents are referred to in this Standard:

AS	
1019	Internal combustion engines—Spark emission control devices
1678	Emergency procedure guide—Transport
1678.5.1.002	Part 5.1.002: Ammonium nitrate
1742	Manual of uniform traffic control devices
1742.3	Part 3: Traffic control devices for works on roads
1743	Road signs—Specifications
2187	Explosives—Storage, transport and use
2187.0	Part 0: Terminology
2187.1	Part 1: Storage
2397	Safe use of lasers in the building and construction industry
2601	Demolition of structures



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