

Australian Standard™

**Explosives—Storage, transport
and use**

Part 1: Storage

This Australian Standard was prepared by Committee CE/5, Explosives. It was approved on behalf of the Council of Standards Australia on 30 December 1997 and published on 5 July 1998.

The following interests are represented on Committee CE/5:

Australasian Institute of Explosives Engineers
Australasian Institute of Mining and Metallurgy
Australian Chamber of Commerce and Industry
AUSTROADS
Chamber of Minerals and Energy of Western Australia
Crushed Stone Association of Australia
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Department of Defence (Australia)
Department of Mineral Resources, N.S.W.
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Part 1: Storage

Originated in part as AS (E)A501—1940.
Previous editions AS 2187.1—1984 and AS 2188—1988.
Revised, amalgamated and designated AS 2187.1—1998.

Incorporating:
Amdt 1—2000

PREFACE

This Standard was prepared by the Standards Australia Committee CE/5 Explosives, to supersede AS 2187.1—1984, *Explosives—Storage, transport and use, Part 1: Storage and land transport* and AS 2188—1988, *Explosives—Relocatable magazines for storage*.

This Standard is one of a series dealing with explosives and pyrotechnics. To date the series consists of the following:

AS

- 2187 Explosives—Storage, transport and use
- 2187.0 Part 0: Terminology
- 2187.1 Part 1: Storage (this Standard)
- 2187.2 Part 2: Use of explosives
- 2187.4 Part 4: Pyrotechnics—Outdoor displays

It is proposed to publish a further three parts consisting of:

- Use of explosives
- Pyrotechnics—Indoor theatrical and film sets
- Pyrotechnics—Marine distress signals
- Pyrotechnics—Shop good fireworks

The objective of this Standard is to provide owners of magazines and regulatory authorities with acceptable requirements to ensure the security and safety of explosives and detonators.

The principal changes from the superseded AS 2187.1 and AS 2188 are as follows:

- (a) Inclusions are—
 - (i) improved security for vents and locks;
 - (ii) revised minimum separation distances based on international testing and experience;
 - (iii) qualifications and duties for a person in charge of a magazine;
 - (iv) housekeeping, maintenance and emergency procedures;
 - (v) underground storage; and
 - (vi) storage of pyrotechnic substances and devices and propellant powders.
- (b) Exclusions are—
 - (i) explosives and explosive ordnances for defence purposes which comply with the Defence Explosives Safety Manual.
 - (ii) conveyance of explosives on public roads (National Standard adopted by all States and Territories); and
 - (iii) storage for ammonium nitrate other than minimum clearance distances to magazines for the storage of explosives.

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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STANDARDS AUSTRALIA

Australian Standard

Explosives—Storage, transport and use

Part 1: Storage

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out requirements and precautions for the storage of explosives, including pyrotechnics as defined in AS 2187.0 and for the location, design, construction and maintenance of magazines.

The Standard applies to the following:

- (a) Portable magazines.
- (b) Relocatable magazines.
- (c) Fixed or permanent magazines.
- (d) Bulk storage.
- (e) Underground storage.

It does not apply to the storage of explosives and explosive ordnance for defence purposes where the provisions of the Defence Explosives Safety Manual are complied with.

1.2 APPLICATION This Standard shall be read in conjunction with but not take precedence over any relevant legislation.

NOTE: Regulatory authorities controlling various explosives may have their own regulations or may otherwise impose conditions which differ from this Standard. Recognition is given to the prerogative of such regulatory authorities to set such legal requirements and no further reference thereto is made in this Standard.

1.3 REFERENCED DOCUMENTS A list of the documents referred to in this Standard is given in Appendix A.

1.4 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2187.0 and the ones below apply.

1.4.1 Explosive ordnance All munitions containing explosives, nuclear fusion or fusion materials and biological and chemical agents. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket and small arms ammunition; all mines, torpedoes and depth charges, demolition charges; pyrotechnics; clusters and dispersers; cartridge and propellant-actuated devices; electro-explosive devices; landmine and improvised explosive devices; and all similar or related items or components which are explosive in nature.

1.5 NOMINAL DIMENSIONS All dimensions in this Standard shall be taken as nominal except those for which a tolerance is specified.

1.6 NEW DESIGNS AND INNOVATIONS This Standard does not preclude the use of novel materials, designs, methods of assembly, procedures and the like which do not comply with a specific requirement of the Standard, or are not mentioned in it, but which can be shown to give equivalent or superior results to those specified.