

SUPERSEDED BY

AS 2187, Part 2 - 1983

Dup *Corrigendum -*
Jan. 1980

AS 2187, Part 2—1979
UDC 614.83:662.2.004.14

Australian Standard 2187, Part 2—1979

SAA EXPLOSIVES CODE PART 2—USE OF EXPLOSIVES



STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter



THE FOLLOWING INDUSTRIAL, PROFESSIONAL, SCIENTIFIC AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Clay Products Association
Australian Mining Industry Council
Broken Hill Mining Managers Association
Chamber of Mines of Western Australia Incorporated
Confederation of Australian Industry
Department of Defence
Department of Labour and Industry, N.S.W.
Department of Minerals and Energy, Victoria
Department of Mineral Resources and Development, N.S.W.
Department of Mines and Energy, Northern Territory
Department of Services and Supply, South Australia
Department of Public Works, N.S.W.
Metropolitan Water Sewerage and Drainage Board, Sydney
Mines Department, Queensland
Mines Department, Tasmania
Mines Department, Western Australia
National Association of Australian State Road Authorities
Quarry Masters Association of New South Wales
Railways of Australia Committee
Snowy Mountains Hydro-electric Authority

This standard, prepared by Committee CE/5 Explosives, was approved on behalf of the Council of the Standards Association of Australia on 19 February 1979, and was published on 1 June 1979.

To keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvements, addressed to the head office of the Association, are welcomed.

January 1980

STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter

CORRIGENDUM

to

AS 2187 Part 2—1977

SAA EXPLOSIVES CODE

Part 2—USE OF EXPLOSIVES

SUMMARY: This corrigendum covers Appendix J of the standard.

Published on 1 February 1980.

AUSTRALIAN STANDARD

**RULES FOR THE
STORAGE, TRANSPORT AND USE
OF EXPLOSIVES**

known as the
SAA EXPLOSIVES CODE

**PART 2
USE OF EXPLOSIVES**

AS 2187, Part 2-1979

First published (as part of AS 1423)	1949
Revised	1952
Amended and redated	1953 and 1955
Revised	1967
Revised and issued as AS 2187, Part 2	1979

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

ISBN 0 7262 1650 X



PREFACE

This standard was prepared by the Association's Committee on Explosives as the second part of the revision and metrication of AS CA23 — 1967. The first part deals with the storage and transport of explosives. Together, Parts 1 and 2 supersede AS CA23 — 1967.

During the course of its revision work the committee reviewed the best practices from overseas and believes that this standard will provide a guide to safe working for all those using explosives irrespective of the scale of the operation.

This standard may require reference to the following standards:

AS 1055	Code of Practice for Noise Assessment in Residential Area
AS 2106	Methods for the Determination of the Flashpoint of Flammable Liquids (Closed Cup)
AS 3000 Part 1	SAA Wiring Rules
BS 4992	Guide to Protection against Ignition and Detonation Initiated by Radio Frequency Radiation
BS 2050	Electrical Resistance of Conductive and Semi-conductive Products Made from Flexible Polymeric Materials

© Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1979

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.

CONTENTS

	<i>Page</i>		<i>Page</i>
SECTION 1. SCOPE AND GENERAL		SECTION 8. FIRING	
1.1 Scope	4	8.1 Warning Procedures	12
1.2 New Materials, Methods and Applications	4	8.2 Procedures after Firing	12
1.3 Definitions	4	SECTION 9. MISFIRES	
SECTION 2. GENERAL REQUIREMENTS		9.1 Determination of Misfires	13
2.1 Shotfirer	4	9.2 Precautions	13
2.2 Handling of Explosives	4	9.3 Examination of Site	13
2.3 Reporting of Theft or Loss of Explosives	4	9.4 Treatment of Misfires	13
2.4 Reporting of Injury to Persons or Property	4	SECTION 10. DISPOSAL OF SURPLUS AND DEFECTIVE EXPLOSIVES	
SECTION 3. MARKING		10.1 General	14
3.1 Identification	4	10.2 Method of Disposal	14
SECTION 4. MIXING OF ANFO		SECTION 11. SPECIAL HAZARDS	
4.1 General	5	11.1 Blasting in the Vicinity of Sources of Electromagnetic Radiation	15
4.2 Materials	5	11.2 Blasting in the Vicinity of Buildings and Structures	15
4.3 Mixing and Composition	5	11.3 Atmospheric Electrical Activity	15
4.4 Fire Precautions on Mixing Sites	5	11.4 Blasting Under Water	15
4.5 Mixing Appliances, Buildings	5	11.5 Compressed Air Shafts, Caissons and Tunnels	16
4.6 Storage of ANFO	6	11.6 Blasting in Hot Material	16
SECTION 5. OPERATIONS PRIOR TO CHARGING		11.7 High Temperature Blasting	17
5.1 Pneumatic Loading	7	APPENDICES	
5.2 Capping Safety Fuse	7	A Fire Fighting	18
5.3 Capping Site	7	B Types of Exploders	19
5.4 Testing Electric Detonators	7	C Current Leakage and Testing for Stray Currents	20
5.5 Insertion of Detonator in Cartridge	7	D Safe Distances for Electric Detonators Subject to Radio Frequency Radiation	21
SECTION 6. CHARGING		E Deterioration of Explosives	22
6.1 Precautions at Site	8	F Preparation of Primers Using Detonating Cord and Preparations for Firing	23
6.2 Blastholes	8	G Firing Circuit Connections	25
6.3 Insertion of Charge	8	H Equipment and its Maintenance	28
6.4 Tamping	8	J Destruction of Explosives by Burning	30
6.5 Bulling	9	K Use of Scaled Distance	31
SECTION 7. PREPARATION FOR FIRING			
7.1 Safety Precautions	10		
7.2 Method of Initiation	10		

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
**RULES FOR THE STORAGE, TRANSPORT AND
 USE OF EXPLOSIVES**

PART 2. USE OF EXPLOSIVES

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. These Rules (hereinafter referred to as this Part of the Code), set out requirements and precautions for the use of factory-made explosives and certain explosives mixed at sites. They do not apply to the following:

- (a) Explosives used in underground coalmines.
- (b) Safety ammunition.
- (c) Pyrotechnics including fireworks, rockets, fog signals or the like.

NOTE: This Part of the Code 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 NEW MATERIALS, METHODS AND APPLICATIONS. This Part of the Code shall not be interpreted to prevent the use of materials, methods or applications not covered by this Part of the Code.

NOTE: Such materials, methods, applications or departures should be submitted to the appropriate Regulatory Authority for approval.

1.3 DEFINITIONS. For the purpose of this Part of the Code, the definitions given in AS 2189 apply.

SECTION 2. GENERAL REQUIREMENTS

2.1 SHOTFIRER. A shotfirer shall be a person approved by the Regulatory Authority to prepare and fire explosives.

NOTES:

1. Attention is drawn to the fact that the age limit for shotfirers varies between States.
2. Some Authorities provide courses for those wishing to become shotfirers.

2.2 HANDLING OF EXPLOSIVES. Operations which could lead to ignition of explosives shall not be carried out within 5 m of where explosives are being handled, nor shall any fire, spark or other source of ignition be brought within this distance, except such as may be necessary and normally used to fire an explosive charge.

2.3 REPORTING OF THEFT OR LOSS OF EXPLOSIVES. Theft of explosives, detonators,

detonating cord or igniter cord, or any unaccountable stock shortage of such, shall be immediately reported to the nearest police station and/or to the appropriate authority.

2.4 REPORTING OF INJURY TO PERSONS OR PROPERTY.

2.4.1 Damage to Property. Where property is damaged by blasting operations, such damage shall be immediately reported to the appropriate authority.

2.4.2 Injury to Persons. Where a person has been injured through blasting operations, no person shall without the permission of the Authority, disturb, move or remove any equipment or material other than to rescue any person injured or recover the body of any person killed by such explosion.

SECTION 3. MARKING

3.1 IDENTIFICATION. Only commercial explosives that are marked in accordance with the requirements of the Regulatory Authority shall be used. Such marking shall include the following:

- (a) Authorized name.

- (b) IMCO* classification.
- (c) Manufacturer's name.
- (d) Date of manufacture.

* Intergovernmental Maritime Consultative Organization.