



**Fire protection for mobile and
transportable equipment**

STANDARDS
Australia

Currently in preview, click buy full version

This Australian Standard® was prepared by Committee FP-022, Fire Protection of Mobile and Transportable Equipment. It was approved on behalf of the Council of Standards Australia on 20 June 2016.

This Standard was published on 11 July 2016.

The following are represented on Committee FP-022:

- Australasian Fire and Emergency Service Authorities Council
 - Construction and Mining Equipment Industry Group
 - Department of Trade and Investment, NSW
 - Fire Protection Association Australia
 - Mining Electrical and Mining Mechanical Engineering Society
-

This Standard was issued in draft form for comment as DR A 15002:2015.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard®

**Fire protection for mobile and
transportable equipment**

First published as AS 5062—2006.
Second edition 2016.
Revised incorporating Amendment No. 1 (April 2017).

COPYRIGHT

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76035 528 9

PREFACE

This Australian Standard was prepared by Standards Australia Committee FP-022, Fire Protection of Mobile and Transportable Equipment, to supersede AS 5062—2006.

This Standard incorporates Amendment No. 1 (April 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard originated as Australian Coal Association Research Program, *Draft Code of Practice Fire Suppression Systems for Off-Road Mobile and Transportable Vehicles*. The scope has been expanded for applicability to vehicles and transportable equipment in other industry sectors.

The objective of the Standard is to formalize current good practice in reducing the incidence and severity of fires and to provide a consistent approach to fire risk reduction in order to safeguard life, property and the environment against fire associated with mobile and transportable equipment.

Providing protection against fire on mobile and transportable equipment poses unique and specific challenges, which general risk assessment methodologies do not necessarily address. This Standard is intended to assist in meeting those specific requirements.

This Standard references the requirements of the various fire protection systems Standards, with the exception of pre-engineered foam water spray systems. In the absence of an applicable Standard, the specific requirements for foam water spray systems are provided in this Standard.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

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.

This Standard incorporates a Commentary on some Clauses. The Commentary directly follows the relevant Clause, as designated by ‘C’ preceding the Clause number and is printed in italics in a panel. The Commentary is for information only and does not need to be followed for compliance with the Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	6
1.2 LIMITATIONS.....	7
1.3 REFERENCED DOCUMENTS.....	7
1.4 DEFINITIONS.....	7
1.5 INTERPRETATION OF SPECIFIED LIMITING VALUES.....	10
SECTION 2 FIRE RISK MANAGEMENT	
2.1 GENERAL.....	11
2.2 CONSULTATION.....	14
2.3 RECORDS.....	14
2.4 FIRE HAZARD IDENTIFICATION.....	14
2.5 FIRE RISK ANALYSIS.....	17
2.6 FIRE RISK EVALUATION.....	18
2.7 MONITORING AND REVIEW.....	19
SECTION 3 FIRE RISK REDUCTION	
3.1 GENERAL.....	20
3.2 DESIGN MEASURES AND SAFEGUARDS.....	22
3.3 ADMINISTRATIVE CONTROLS.....	24
3.4 DOCUMENTATION.....	25
3.5 FIRE PROTECTION SYSTEMS.....	25
SECTION 4 SAFETY REQUIREMENTS	
4.1 EMERGENCY PROCEDURES.....	27
4.2 EMERGENCY STOP DEVICE.....	27
4.3 SIGNS AND WARNING NOTICES.....	27
4.4 FIRE EXTINGUISHERS.....	30
SECTION 5 FIRE PROTECTION SYSTEMS	
5.1 GENERAL.....	31
5.2 FIRE PROTECTION SYSTEM FUNCTIONS.....	31
5.3 EXTINGUISHING AGENT.....	34
5.4 OPERATING CONDITIONS.....	34
5.5 FIRE SYSTEM SPECIFICATION.....	34
5.6 MAINTENANCE OF FIRE PROTECTION SYSTEMS.....	35
5.7 FIRE TESTING REQUIREMENTS FOR FOAM WATER SPRAY FIRE SUPPRESSION SYSTEMS.....	35
5.8 DESIGN AND INSTALLATION.....	36
5.9 EQUIPMENT MODIFICATIONS.....	36
5.10 DOCUMENTATION.....	36
5.11 FIRE PROTECTION SYSTEMS.....	37
5.12 SYSTEM SAFETY REQUIREMENTS.....	37

SECTION 6 FIRE PROTECTION SYSTEM DESIGN	
6.1	GENERAL..... 38
6.2	DESIGN DOCUMENTATION..... 38
6.3	SYSTEM DESIGN PROCEDURES 39
6.4	QUANTITY OF AGENT..... 41
6.5	EQUIPMENT SHUTDOWN 41
6.6	AIR HANDLING..... 42
6.7	DISCHARGE TIME 42
6.8	SYSTEM FLOW CALCULATIONS 42
6.9	CONTAINMENT OF EXTINGUISHING AGENT 42
6.10	IDENTIFICATION OF DISCHARGE NOZZLES 42
SECTION 7 SUPPLY	
7.1	STORAGE CONTAINERS 43
7.2	STORAGE CONTAINER ARRANGEMENT 43
7.3	IDENTIFICATION, MARKING AND LABELLING OF CONTAINERS 44
7.4	FIRE PROTECTION SYSTEM CONTROL VALVES 45
SECTION 8 DISTRIBUTION SYSTEM	
8.1	GENERAL..... 46
8.2	DISTRIBUTION SYSTEM SUPPORTS 46
8.3	COMPATIBILITY..... 46
8.4	INSTALLATION OF DISTRIBUTION SYSTEM 46
8.5	NOZZLES 46
SECTION 9 FIRE DETECTION, ACTUATION AND CONTROL SYSTEMS	
9.1	GENERAL..... 48
9.2	MANUAL ACTUATION 48
9.3	ELECTRICAL SYSTEMS..... 49
9.4	PNEUMATIC SYSTEMS..... 49
9.5	MECHANICAL SYSTEMS..... 49
9.6	CONTROL AND INDICATING EQUIPMENT 50
SECTION 10 COMMISSIONING AND ACCEPTANCE OF FIRE PROTECTION SYSTEM	
10.1	GENERAL..... 53
10.2	DISCHARGE TEST 53
10.3	SYSTEM FUNCTION AND OPERATION TEST 54
10.4	COMPLETION REPORT AND DOCUMENTATION..... 54
10.5	OPERATION AND MAINTENANCE MANUALS..... 55
10.6	TRAINING..... 55
SECTION 11 SERVICE OF FIRE PROTECTION SYSTEMS	
11.1	GENERAL..... 56
11.2	SERVICE PERSONNEL 56
11.3	RECORDS..... 56
11.4	PRECAUTIONS 58
11.5	RECHARGE OF EXTINGUISHING AGENT 58
11.6	SERVICE REQUIREMENTS..... 59
11.7	ROUTINE SERVICE SCHEDULES FOR PRE-ENGINEERED SYSTEMS 60

Page

APPENDICES

A	REFERENCED DOCUMENTS.....	65
B	TYPES OF RISK ANALYSIS.....	67
C	HOSE AND WIRING RETICULATION DIAGRAMS.....	69
D	ASSESSMENT OF COMPONENT COMPLIANCE FOR FIRE PROTECTION SYSTEMS.....	72
E	FIRE TEST METHOD FOR FOAM WATER SPRAY FIRE SUPPRESSION SYSTEMS.....	80
F	PRE-ENGINEERED FIRE PROTECTION SYSTEM SAMPLE COMMISSIONING REPORT.....	86
G	SAMPLE CERTIFICATE OF COMPLETION.....	89
H	FIRE PROTECTION SYSTEM—SAMPLE ANNUAL SYSTEM CONDITION REPORT.....	92

Currently in preview, click buy full version

STANDARDS AUSTRALIA

Australian Standard**Fire protection for mobile and transportable equipment**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies fire risk management procedures and the minimum requirements for fire protection system design, installation, commissioning, and maintenance for use on mobile and transportable equipment. The requirements for listing of fire protection systems and the testing requirements for pre-engineered foam-water spray systems are also specified.

NOTE: Mobile and transportable equipment is generally referred to in this Standard as 'equipment'.

This Standard may be applied to the following equipment and industries:

(a) Commercial and recreational vehicles, including the following

- (i) Buses.
- (ii) Four-wheel drives.
- (iii) Road haulage.
- (iv) Motor homes.
- (v) Forklifts.
- (vi) Road registered plant.
- (vii) Pleasure craft.

NOTE: *National Standard for Commercial Vessels, Part C—Design and Construction, Section 4—Fire Safety* covers the requirements for commercial marine applications.

(b) Mobile and transportable equipment, including but not limited to the following industry sectors:

- (i) Mining and quarrying.
- (ii) Forestry.
- (iii) Waste management.
- (iv) Construction.
- (v) Railway.
- (vi) Agriculture.
- (vii) Defence.

This Standard is intended for new equipment however, it is recommended that the Standard be applied to existing equipment.

NOTE: For existing equipment, the fire risk assessment may identify the need for further risk reduction measures or modification of existing reduction measures (see Section 3).