

Australian Standard[®]

**Fire protection for mobile and
transportable equipment**



This Australian Standard® was prepared by Committee FP-022, Fire Protection of Mobile Transportable Equipment. It was approved on behalf of the Council of Standards Australia on 16 October 2006.

This Standard was published on 8 November 2006.

The following are represented on Committee FP-022:

- Australasian Fire Authorities Council
 - Australian Coal Association Research Program
 - Australian Industry Group
 - CSIRO Manufacturing and Materials Technology
 - Construction Industry Engineering Services Group
 - Construction and Mining Equipment Industry Group
 - Department of Defence (Australia)
 - Department of Primary Industries, Mine Safety (NSW)
 - Engineers Australia
 - Fire Protection Association Australia
 - Mining Electrical and Mining Mechanical Engineering Society
 - National Electrical and Communications Association
 - NSW Maritime
 - The University of Queensland
-

This Standard was issued in draft form for comment as DR 04372.

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 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Standards may also be withdrawn.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.

COPYRIGHT

© Standards Australia

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.

Published by Standards Australia, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 7833 X

PREFACE

This Australian Standard was prepared by Standards Australia Committee FP-022, Fire Protection of Mobile and Transportable Equipment.

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 the 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 footnotes to tables are deemed to be requirements of this Standard.

The term ‘normative’ has been used in this Standard to define the application of the Appendix to which it applies. A ‘normative’ Appendix is an integral part of a Standard.

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

This Standard incorporates a Commentary on some clauses. The Commentary directly follows the relevant clause, is 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	9
SECTION 2 FIRE RISK MANAGEMENT	
2.1 GENERAL	10
2.2 CONSULTATION.....	13
2.3 RECORDS.....	13
2.4 FIRE HAZARD IDENTIFICATION	13
2.5 FIRE RISK ANALYSIS	16
2.6 FIRE RISK EVALUATION	18
2.7 MONITORING AND REVIEW	18
SECTION 3 FIRE RISK REDUCTION	
3.1 GENERAL	19
3.2 DESIGN MEASURES AND SAFEGUARDS	21
3.3 ADMINISTRATIVE CONTROLS	23
3.4 DOCUMENTATION.....	24
3.5 FIRE PROTECTION SYSTEMS.....	24
SECTION 4 SAFETY REQUIREMENTS	
4.1 EMERGENCY PROCEDURES	27
4.2 EMERGENCY STOP DEVICE.....	27
4.3 SIGNS AND WARNING NOTICES	27
4.4 REMOTE-CONTROLLED AND AUTONOMOUS MOBILE EQUIPMENT	29
4.5 FIRE EXTINGUISHERS	29
SECTION 5 FIRE PROTECTION SYSTEMS	
5.1 GENERAL	31
5.2 FIRE PROTECTION SYSTEM FUNCTIONS.....	31
5.3 LISTING OF FIRE PROTECTION SYSTEMS.....	34
5.4 FIRE TESTING REQUIREMENTS FOR FOAM WATER SPRAY FIRE SUPPRESSION SYSTEMS.....	34
5.5 EXTINGUISHING AGENT	35
5.6 OPERATING CONDITIONS.....	35
5.7 DESIGN AND INSTALLATION.....	35
5.8 EQUIPMENT MODIFICATIONS.....	35
5.9 DOCUMENTATION.....	35
5.10 FIRE PROTECTION SYSTEMS.....	36
5.11 SYSTEM SAFETY REQUIREMENTS.....	36
SECTION 6 FIRE PROTECTION SYSTEM DESIGN	
6.1 GENERAL	37
6.2 DESIGN DOCUMENTATION	37
6.3 SYSTEM DESIGN PROCEDURES.....	38

6.4	QUANTITY OF AGENT	40
6.5	EQUIPMENT SHUTDOWN	40
6.6	AIR HANDLING	40
6.7	DISCHARGE TIME	40
6.8	SYSTEM FLOW CALCULATIONS	41
6.9	CONTAINMENT OF EXTINGUISHING AGENT	41
6.10	IDENTIFICATION OF DISCHARGE NOZZLES	41
SECTION 7 SUPPLY		
7.1	STORAGE CONTAINERS	42
7.2	STORAGE CONTAINER ARRANGEMENT	42
7.3	IDENTIFICATION, MARKING AND LABELLING OF CONTAINERS	43
7.4	FIRE PROTECTION SYSTEM CONTROL VALVES	44
SECTION 8 DISTRIBUTION SYSTEM		
8.1	GENERAL	45
8.2	DISTRIBUTION SYSTEM SUPPORTS	45
8.3	COMPATIBILITY	45
8.4	INSTALLATION OF DISTRIBUTION SYSTEM	45
8.5	NOZZLES	45
SECTION 9 DETECTION, ACTUATION AND CONTROL SYSTEMS		
9.1	GENERAL	47
9.2	MANUAL ACTUATION	47
9.3	ELECTRICAL SYSTEMS	48
9.4	PNEUMATIC SYSTEMS	49
9.5	MECHANICAL SYSTEMS	49
9.6	CONTROL AND INDICATING EQUIPMENT	49
SECTION 10 COMMISSIONING AND ACCEPTANCE OF FIRE PROTECTION SYSTEM		
10.1	GENERAL	52
10.2	DISCHARGE TEST	52
10.3	SYSTEM FUNCTION AND OPERATION TEST	53
10.4	COMPLETION REPORT AND DOCUMENTATION	53
10.5	OPERATION AND MAINTENANCE MANUALS	53
10.6	TRAINING	54
SECTION 11 FIRE PROTECTION SYSTEMS MAINTENANCE		
11.1	GENERAL	55
11.2	MAINTENANCE PERSONNEL	55
11.3	RECORDS	55
11.4	PRECAUTIONS	56
11.5	RECHARGE OF EXTINGUISHING AGENT	56
11.6	INSPECTION, TEST, MAINTENANCE AND DESIGN SURVEY	57
11.7	SCHEDULES FOR PRE-ENGINEERED SYSTEMS	58
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

	<i>Page</i>
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

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 is applicable, but is not limited, 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 Section 4 covers the requirements for commercial marine applications.

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

This is a free preview. Purchase the entire publication at the link below:

AS 5062 : 2006 : EN : COMBINED PDF

-
- ⊙ Looking for additional Standards? Visit SAI Global Infostore
 - ⊙ Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-

Need to speak with a Customer Service Representative - Contact Us