

AS 2593—2004
(Incorporating Amendment No. 1)

AS 2593—2004

Australian Standard[®]

**Boilers—Safety management and
supervision systems**



This Australian Standard® was prepared by Committee ME-001, Pressure Equipment. It was approved on behalf of the Council of Standards Australia on 26 May 2004. This Standard was published on 28 June 2004.

The following are represented on Committee ME-001:

- A.C.T. WorkCover
 - Australasian Institute of Engineer Surveyors
 - Australian Aluminium Council
 - Australian Building Codes Board
 - Australian Chamber of Commerce and Industry
 - Australian Industry Group
 - Australian Institute of Energy
 - Australian Institute of Petroleum
 - Australian Liquefied Petroleum Gas Association
 - Bureau of Steel Manufacturers of Australia
 - Department for Administrative and Information Services, S.A.
 - Department of Consumer & Employment Protection, WorkSafe Division, W.A.
 - Department of Infrastructure, Energy and Resources, Tas.
 - Energy Supply Association of Australia
 - Engineers Australia
 - Institute of Materials Engineering Australasia
 - Insurance Council of Australia Ltd
 - National Association of Testing Authorities, Australia
 - Pressure Equipment Association
 - Victorian WorkCover Authority
 - Welding Technology Institute of Australia
 - WorkCover New South Wales
-

This Standard was issued in draft form for comment as DR 02328.

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Standards may also be withdrawn.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.

AS 2593—2004
(Incorporating Amendment No. 1)

Australian Standard[®]

Boilers—Safety management and supervision systems

First published as AS 2593—1983 and part of AS 3653—1993.
Previous edition AS 2593—2001.
AS 2593—2001 and part of AS 3653—1993 revised, amalgamated
and redesignated as AS 2593—2004.
Reissued incorporating Amendment No. 1 (February 2007).

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 6111 9

PREFACE

This Standard was prepared by the Australian members of Standards Australia/Standards New Zealand Committee ME-001, Pressure Equipment to supersede AS 2593—2001, *Boilers—Unattended and limited attendance*. Parts of AS 3653—1993, *Boilers—Safety, management, combustion and other ancillary equipment*, have been integrated into this Standard. AS 3653 will be withdrawn after publication of this Standard.

This Standard incorporates Amendment No. 1 (February 2007). 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.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than as an Australian/New Zealand Standard.

The objective of this Standard is to provide operators of all boilers with requirements for their safe operation.

This edition introduces requirements for attended boilers.

Users of this Standard are reminded that it has no legal authority in its own right, but may acquire legal standing in one or more of the following circumstances:

- (a) Adoption by a government authority.
- (b) Adoption by a purchaser as a required standard of construction when placing a contract.
- (c) Adoption where a manufacturer states that a vessel is in accordance with this Standard.

Statements expressed in mandatory terms in footnotes 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 appendices to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is for information and guidance only.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	6
1.2 REFERENCED DOCUMENTS	7
1.3 DEFINITIONS	7
1.4 NEW DESIGNS, MATERIALS AND CONSTRUCTION METHODS	9
SECTION 2 DESIGN AND CONSTRUCTION FOR UNATTENDED AND LIMITED ATTENDANCE BOILERS	
2.1 GENERAL REQUIREMENTS	11
2.2 STEAM BOILERS (OTHER THAN ELECTRIC BOILERS)	11
2.3 HOT WATER BOILERS.....	12
2.4 WASTE HEAT BOILERS.....	12
2.5 ELECTRIC BOILERS.....	13
2.6 SUPERHEATERS	13
SECTION 3 BOILER MANAGEMENT SYSTEM FOR UNATTENDED AND LIMITED ATTENDANCE BOILERS	
3.1 GENERAL	14
3.2 FAIL-SAFE TECHNIQUES.....	14
3.3 TEMPERATURE SUITABILITY OF COMPONENTS	14
3.4 COMBUSTION MANAGEMENT	14
3.5 WATER MANAGEMENT SYSTEMS	15
3.6 ELECTRICAL POWER ISOLATION	20
3.7 POWER FAILURE PROTECTION	20
3.8 CONTROL EQUIPMENT	21
3.9 ALARMS	21
3.10 VISUAL DISPLAY FOR BOILERS UP TO AND INCLUDING A POWER OUTPUT OF 500 kW	21
3.11 VISUAL DISPLAY FOR BOILERS EXCEEDING A POWER OUTPUT OF 500 kW	22
3.12 COMBUSTION EQUIPMENT FOR FUEL-FIRED BOILERS.....	23
3.13 MULTIPLE-BURNER INSTALLATIONS	25
3.14 AIR SUPPLY AND CONTROL SYSTEM	25
3.15 IGNITION SYSTEM.....	26
3.16 MAIN FUEL FIRING RATE	26
SECTION 4 ADDITIONAL REQUIREMENTS FOR OIL-FIRED, GAS-FIRED AND SOLID-FUEL-IN-SUSPENSION-FIRED UNATTENDED AND LIMITED ATTENDANCE BOILERS	
4.1 APPLICATION	28
4.2 OPERATIONAL REQUIREMENTS FOR OIL, GAS AND SOLID-FUEL-IN- SUSPENSION MANAGEMENT SYSTEMS FOR BOILERS WITH A POWER OUTPUT ABOVE 500 kW.....	28
4.3 OPERATIONAL REQUIREMENTS FOR OIL, GAS AND SOLID-FUEL-IN- SUSPENSION MANAGEMENT SYSTEMS FOR BOILERS UP TO AND INCLUDING A POWER OUTPUT OF 500 kW	31
4.4 SPECIFIC REQUIREMENTS FOR OIL-FIRED BOILERS	34
4.5 SPECIFIC REQUIREMENTS FOR GAS-FIRED BOILERS	34
4.6 SPECIFIC REQUIREMENTS FOR SOLID-FUEL-IN-SUSPENSION-FIRED BOILERS	35

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

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-