

Australian/New Zealand Standard™

**Certification of welding supervisors —
Structural steel welding**



AS/NZS 2214:2019

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee WD-003, Welding Of Structures. It was approved on behalf of the Council of Standards Australia on 03 September 2019 and by the New Zealand Standards Approval Board on 02 October 2019.

This Standard was published on 6 November 2019.

The following are represented on Committee WD-003:

- Australasian Corrosion Association
- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Steel Association
- Australian Steel Institute
- Australian Welding Institute
- Austrroads
- Bureau of Steel Manufacturers of Australia
- Energy Networks Australia
- New Zealand Heavy Engineering Research Association
- New Zealand Non-Destructive Testing Association
- Steel Reinforcement Institute of Australia
- TAFE NSW
- University of Sydney
- Weld Australia

This Standard was issued in draft form for comment as DR AS/NZS 2214:2018.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

www.standards.govt.nz

ISBN 978 1 76072 620 1

Australian/New Zealand Standard™

Certification of welding supervisors — Structural steel welding

First published as AS CA60—1970.
Revised and redesignated AS 2214—1978.
Fourth edition 2004.
AS 2214—2004 revised and redesignated AS/NZS 2214:2019.

COPYRIGHT

© Standards Australia Limited/the Crown in right of New Zealand, administered by the New Zealand Standards Executive 2019

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 (Cth) or the Copyright Act 1994 (New Zealand).

Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee WD-003, Welding of Structures, to supersede AS 2214—2004, *Certification of welding supervisors — Structural steel welding*.

The objective of this Standard is to specify the pre-examination qualifications and scope of examination required for granting certificates to welding supervisors engaged in the supervision of welders of steel structures.

The preparation of this edition was undertaken to bring the Standard into line with the latest edition of AS 1796, *Certification of welders and welding supervisors*, and give recognition to competency-based education and training, and take cognizance of relevant ISO Standards.

This edition of AS 2214 introduces the following changes:

- (a) The addition of new definitions.
- (b) Alignment of specific requirements for an examining body with current Standards Australia requirements.
- (c) Modification to examination requirements to provide for alternative examination methods.
- (d) Editorial changes, including the following:
 - (i) Clarification of the meaning of several clauses.
 - (ii) Update of the list of Standards and the list of referenced documents.
 - (iii) Alignment with current Standards Australia style.
- (e) Revision of the syllabi to account for changes in standards, legislation and regulations, including an allowance for future regulatory changes.
- (f) Expansion of certificate format options.

It is not intended that the publication of this edition will invalidate certificates that were issued in accordance with previous editions of this Standard.

The terms “normative” and “informative” are used in Standards 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.

Contents

Preface	ii
Introduction	v
Section 1 Scope and general	1
1.1 Scope, application and certificate title	1
1.1.1 Scope	1
1.1.2 Application	1
1.1.3 Title and type of certificate	1
1.2 Normative references	1
1.3 Terms and definitions	2
Section 2 Examining body	4
2.1 General	4
2.2 Appointments	4
2.2.1 General	4
2.2.2 Types	4
2.2.3 Transparency	4
2.3 Quality system	4
2.3.1 General	4
2.3.2 Quality and security	4
2.3.3 Audit	4
2.3.4 Records	5
2.4 Responsibilities of an examining body	5
2.4.1 Assessment of application	5
2.4.2 Theory examination	5
2.4.3 Appeals	5
Section 3 Welding supervisor certification	6
3.1 Pre-examination requirements	6
3.2 Scope of examination	6
3.2.1 Type	6
3.2.2 Location of examination	7
3.2.3 Duration of the examination	7
3.2.4 Criteria for examination marking	7
3.3 Examination syllabus	7
3.3.1 Syllabus	7
3.3.2 Item 1 — General	7
3.3.3 Item 2 — Welding safety	8
3.3.4 Item 3 — Welding, cutting and related processes	9
3.3.5 Item 4 — Welding equipment	9
3.3.6 Item 5 — Welding practice	10
3.3.7 Item 6 — Welding production	11
3.3.8 Item 7 — Welding inspection and testing	13
3.3.9 Item 8 — Basic metallurgy	16
3.3.10 Item 9—Application standards	17
3.3.11 Modification of the syllabus	18
3.4 Certificate	18
3.4.1 Issue of certificate	18
3.4.2 Certificate and wallet card	18
3.4.3 Period of validity	19
3.4.4 Re-issue of certificate and wallet card	19
3.4.5 Register	19
3.5 Failure in part	19
3.5.1 Documentary evidence	19
3.5.2 Re-examination	19
3.5.3 Date, location and duration for re-examination	19

Appendix A (informative) List of standards for preparation for a welding supervisor certification examination	20
Bibliography	25

Introduction

The Standard refers to the certification of welding supervisors where the requirements of industry demand a prescribed degree of quality in welding to meet the needs of safety and performance. This Standard is directed towards the requirements of the structural steel welding industry for the certification of welding supervisors. It states the requirements that will be acceptable throughout Australia and New Zealand for the qualifying of personnel who are required to supervise the welding of steel structures, but recognizes that there are other industries and applications where quality in welding is also of considerable importance. In these cases, certification in accordance with this Standard may be useful or desirable, particularly where an application Standard does not specify welding supervisor qualifications. Such supervision has its objective as the need to ensure that welding is performed according to the relevant Standards and other specified requirements, and is performed safely.

The requirements of this Standard apply specifically to structural applications. The requirements specified in AS 1796, *Certification of welders and welding supervisors*, for the certification of welding supervisors have also been considered in order to create a syllabus that will enable educational authorities to provide adequate facilities for the training of supervisors for either application.

The possession of a welding supervisor's certificate indicates that the holder has a high degree of knowledge on the theory and practice of welding in accordance with the appropriate requirements of an application Standard.

Australian/New Zealand Standard

Certification of welding supervisors — Structural steel welding

Section 1 Scope and general

1.1 Scope, application and certificate title

1.1.1 Scope

This Standard sets out minimum requirements for the confirmation of a person as a welding supervisor of structural steel welding.

The welding supervisor is a person engaged in the supervision of welding and allied processes (including gouging and flame cutting) —

- (a) intended to form part of steel structures constructed in accordance with AS/NZS 1554 (all parts) and AS/NZS 5131;
- (b) designed in accordance with AS 3990, AS 4100, AS/NZS 4600, AS 5100 (all parts), AS/ NZS 5100.6, AS 3600 or NZS 3404.1; and,
- (c) where appropriate, to form part of other welded structures.

This Standard also sets out the minimum requirements for examining bodies.

1.1.2 Application

Certification shall be granted to welding supervisors who conform to the requirements of [Section 3](#).

1.1.3 Title and type of certificate

The title of the certificate shall be “Welding supervisor — Structural steel”.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1101.3, *Graphical symbols for general engineering, Part 3: Welding and non-destructive examination*

AS 2812, *Welding, brazing and cutting of metals — Glossary of terms*

AS 3600, *Concrete structures*

AS 3990, *Mechanical equipment — Steelwork*

AS 4100, *Steel structures*

AS/NZS 1554.1, *Structural steel welding, Part 1: Welding of steel structures*

AS/NZS 1554.2, *Structural steel welding, Part 2: Stud welding (steel studs to steel)*

AS/NZS 1554.3, *Structural steel welding, Part 3: Welding of reinforcing steel*

AS/NZS 1554.4, *Structural steel welding, Part 4: Welding of high strength quenched and tempered steels*

AS/NZS 1554.5, *Structural steel welding, Part 5: Welding of steel structures subject to high levels of fatigue loading*