

Australian/New Zealand Standard™

Occupational diving operations

Part 1: Standard operational practice



AS/NZS 2299.1:2015

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-017, Occupational Diving. It was approved on behalf of the Council of Standards Australia on 16 March 2015 and on behalf of the Council of Standards New Zealand on 3 September 2015.

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The following are represented on Committee SF-017:

Association of Diving Contractors, New Zealand
Australian Council of Trade Unions
Australian Diver Accreditation Scheme
Australian Diving Contractors Association
Australian Marine Sciences Association
Australian Medical Association
CSIRO Marine and Atmospheric Research
Department of Defence, Australia
International Marine Contractors Association
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-017, Occupational Diving, to supersede AS/NZS 2299.1:2007.

This Standard is the initial Part of a series of Standards for the conduct of occupational diving operations. It is intended for application to all diving operations, however, diving operations in specific sectors of the diving industry for which other Parts in the AS/NZS 2299 series are published may be conducted using either this Standard or the sector-specific Standard. At the time of publication, sector-specific Standards for scientific diving, recreational industry diving and film and photographic diving were published.

The objective of this revision is to clarify and update the Standard and to reflect the requirements of the regulatory authorities. Significant differences from the 2007 edition include the following:

- (a) Revised guidance for the use, calibration and testing of the various pressure gauges used in diving operations.
- (b) A review of the provisions for breathing gas quality, with a specific emphasis on the following:
 - (i) Simplification of determining acceptable water content to avoid risk of condensation or freezing.
 - (ii) Acceptable composition of breathing gases, including gas used for enriched air nitrox (EAN) diving.
 - (iii) A review of the testing and monitoring requirements for breathing gas quality.
- (c) A review of the flange requirements and further considerations for the use of worksite chambers.
- (d) The introduction of a maximum partial pressure of oxygen to be breathed by the diver.
- (e) The addition of a section on the specific requirements for EAN diving, which includes—
 - (i) equipment requirements;
 - (ii) breathing gas supplies for SCUBA and SSBA; and
 - (iii) EAN procedures.
- (f) A minor review of medical requirements.
- (g) A review of the guidance for medical practitioners in Appendix M.
- (h) The removal of reference to specific decompression tables for diving.

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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 only for information and guidance.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides organizational and logistical requirements for the conduct of occupational diving operations, including the use of compressed gas supply apparatus, and specific requirements for the use of surface-supplied breathing apparatus (SSBA) and self-contained underwater breathing apparatus (SCUBA) in occupational underwater operations at depths not exceeding 50 m (165 ft).

1.2 OBJECTIVE

The objective of this Standard is to provide persons engaged in, or connected with, occupational diving with a set of requirements to promote uniformity of practice in relation to health and safety.

1.3 APPLICATION

This Standard applies to persons directly involved in occupational diving operations and industries either employing those persons or supplying equipment for use in connection with occupational diving operations. This Standard provides requirements for diving activity using air or enriched air nitrox (EAN) mixtures at depths not exceeding 50 m.

Other Parts of the AS/NZS 2299 series have been prepared to provide specific requirements for particular types of diving, such as scientific diving and diving in the film and photographic sectors. These other Parts of the AS/NZS 2299 series are intended to be read in conjunction with the relevant requirements of this Standard.

In addition, this Standard is intended to act as a useful resource to guide organizational, logistical and safety-related aspects of all occupational diving activities, including those that fall outside the stated scope of this Standard.

If diving operations beyond the scope of this Standard are to be undertaken, then additional training and procedures will be necessary to ensure the safety and competency of the dive team.

This Standard may be used for guidance for diving activities in liquids other than water and for diving with non-standard breathing apparatus systems, such as hookah or rebreather units, subject to the appropriate additional training and procedures.

This Standard does not apply to the conduct or teaching of recreational diving, although the guidance on medical fitness for occupational diving is relevant.

This Standard does not apply to non-diving work in pressurized atmospheres, such as in tunnels or caissons, or in hyperbaric treatment facilities in hospitals, which are covered by AS 4774.1 and AS 4774.2 respectively.

NOTES:

- 1 Recreational industry diving is covered by AS/NZS 2299.3.
- 2 For recreational diving, the relevant regulatory authority needs to be consulted. A list of relevant regulatory authorities is given in Appendix A.