

SINGAPORE STANDARD
SS 511 : 2010
(ICS 13.100)

CODE OF PRACTICE FOR
Diving at work

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KB Associates Pte Ltd
Maritime Underwater Maintenance & Services Pte Ltd
Ministry of Manpower
Nanyang Technological University
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Foreword

This Singapore Standard was prepared by the Working Group appointed by the Technical Committee on Workplace Safety and Health under the purview of the General Engineering and Safety Standards Committee.

The code deals with diving at work and, in particular, it provides a set of requirements to promote uniformity of practice in relation to the occupational safety and health in the commercial diving industry.

The code was first published in 2005. This revision is to bring the standard up-to-date with the latest relevant overseas standards, in particular, the revised AS/NZS 2299.1 : 2007, which has significant changes in terms of risk assessment, specific emphasis on the importance of avoiding breathing gas contamination by volatile hydrocarbons, and buoyancy control requirements.

The revision of the code updates cross references made to local legislation, which either has been revised or superseded. The revised code also makes cross reference to the Commercial Diving Competency Standards for Inland/Inshore issued by the Workplace Safety and Health Council.

In the preparation of this standard, reference was made to the following publications:

- 1) AS/NZS 2299.1 : 2007 Occupational diving operations – Standard operational practice
- 2) AS/NZS 2030.1 : 2009 Gas cylinders – General requirements
- 3) AS/NZS 4484 : 2004 Gas cylinders for industrial, scientific, medical and refrigerant use – Labelling and colour coding
- 4) Code of practice for safety and health at work for industrial diving (Occupational Safety and Health Branch, Labour Department of Hong Kong, 1998)
- 5) The medical examination of divers – A guide for physicians (Occupational Safety and Health Branch, Labour Department of Hong Kong, 2005)
- 6) The medical examination and assessment of divers (Health and Safety Executive)
- 7) Guidance Note DMAC 07 – Recommendation for flying after diving (Diving Medical Advisory Committee)

AS/NZS 2299.1 was adapted and reproduced with permission from SAI Global. Australian Standards can be purchased online at <http://www.saiglobal.com>.

Acknowledgement is made for the use of the information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.*
2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

Code of practice for diving at work

1 Scope

This code provides organisational and logistical requirements for the use of compressed air supply apparatus in occupational diving operations as well as specific requirements for the use of surface-supplied breathing apparatus (SSBA) in occupational underwater operations in depths not exceeding 50 m and self-contained underwater breathing apparatus (SCUBA) in occupational underwater operations in depths not exceeding 30 m.

This code does not apply to recreational diving.

NOTE 1 – For recreational diving, refer to the National Operational Code of Practice for Recreation, Sport and Technical Diving (SUF D 03 1106).

NOTE 2 – Specialised gas mixing, filling, analysis, labelling and diving procedures are necessary for safe diving using breathing gases other than air. In particular, special equipment selection and cleaning procedures are needed for diving using oxygen-enriched gas mixture. This code does not provide guidance on these procedures, and such diving methods/techniques are outside its scope.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 12021 : 1999	Respiratory protective devices – Compressed air for breathing apparatus
ISO 2230 : 2002	Rubber products – Guidelines for storage
SS CP 12	The filling, inspection, testing and maintenance of containers for the storage and transport of compressed gases Part 1 : 2000 Seamless metal containers for gases, excluding dissolved acetylene
SS 473	Personal eye protectors Part 1 : 1999 General requirements Part 2 : 1999 Selection, use and maintenance

Workplace Safety and Health (Construction) Regulations

3 Definitions

For the purpose of this code, the definitions below apply.

3.1 Bottom time

The total elapsed time from when a diver leaves the surface to the time (next whole minute) at which ascent is commenced, measured in minutes.

3.2 Breathing gas

The compressed gas intended for respiration by the diver.