

# Occupational safety code for diving operations



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# Preface

This is the fifth edition of CSA Z275.2, *Occupational safety code for diving operations*. It supersedes the previous editions published in 2004, 1992, 1982, and 1974. It is part of a series of Standards on diving and caisson systems covering hyperbaric facilities, occupational diving, and construction work in compressed air.

This edition updates specifications for equipment and diving procedures in light of new technology introduced since the 2004 edition. It is harmonized with new international standards on professional diving and recognizes the new dive support categories and qualifications introduced in CAN/CSA-Z275.4, *Competency standard for diving operations*, as amended in 2004. Improved guidance information on medical examinations and qualifications has been set out in [Annex E](#), and new guidelines for penetration diving are included in [Annex J](#) (as provided by the Association of Diving Contractors International).

This Standard has also been harmonized with the anticipated new edition of CSA Z180.1, *Compressed breathing air and systems*. As part of this harmonization effort, specifications for compressed breathing air/gas quality and testing have been updated and strengthened. In addition, guidance on compressed breathing air systems and on quality control procedures for breathing air is provided in four new Annexes ([Annexes A, B, C, and D](#)).

This Standard is not intended to supersede the requirements of applicable occupational safety and health regulations. Criteria in this Standard have been written in a manner that allows the user to comply both with the Standard and applicable legislated requirements throughout Canada.

This Standard is not intended for use as a diving or procedure manual. It is designed to be inflexible in those matters that experience has shown to be critical to the safety of the diver, and yet flexible in those areas where the responsibility and considered judgment of operators provide the highest degree of safety in specialized operations.

Specific exposure tables and decompression schedules are not included in this Standard in view of the fact that a number of well-tested and authoritative tables are available for use by divers and for adoption by the regulatory authorities.

The Subcommittee on Occupational Diving Safety has been assisted in the preparation of this Standard by a number of practicing professional divers, physicians with experience in diving and in the medical supervision of divers, managers of companies specializing in construction involving diving operations, employers of divers in construction operations, members of Defence Research Development Canada (DRDC), and representatives of various federal and provincial regulatory authorities.

This Standard was prepared by the Subcommittee on Occupational Diving Safety, under the jurisdiction of the Technical Committee on Occupational Diving and Hyperbaric Environments and the Strategic Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee.

March 2011

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# Z275.2-11

## **Occupational safety code for diving operations**

### **1 Scope**

#### **1.1 General**

##### **1.1.1**

This Standard applies to occupational diving operations conducted in connection with all types of work and employment, and describes the requirements for occupational safety.

**Note:** *It is recognized that certain underwater tasks may require specialized standards of practice and/or operational techniques that differ from the requirements of this Standard yet may be acceptable to the authority having jurisdiction. Users should consult applicable provincial and federal occupational safety and health regulations to determine whether they impose safety requirements additional to or more stringent than those of this Standard.*

##### **1.1.2**

This Standard addresses equipment requirements for the following diving systems:

- (a) SCUBA diving systems (see [Clause 7](#));
- (b) surface-supply diving systems (see [Clause 8](#));
- (c) deep-diving systems (see [Clause 9](#)); and
- (d) diving in contaminated environments (see [Clause 10](#)).

#### **1.2 Limitations**

##### **1.2.1**

This Standard does not apply to scientific diving as defined in [Clause 3](#).

##### **1.2.2**

This Standard does not apply to diving operations performed solely for sport or recreation.

##### **1.2.3**

This Standard does not include work techniques associated with underwater diving operations.

#### **1.3 Terminology**

In CSA standards, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.