

Competency Standard for diving, hyperbaric chamber, and remotely operated vehicle operations



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Preface

This is the fourth edition of CSA Z275.4, *Competency Standard for diving, hyperbaric chamber, and remotely operated vehicle operations*. It supersedes the previous editions published in 2012, 2002, and 1997.

The Standard contains requirements and performance specifications for determining and measuring competency levels for occupational divers, hyperbaric chamber operators, remotely operated vehicle technicians, and their associated team members. The Standard applies to both offshore and inshore operations.

This new edition of the Standard is based on the 2020 edition of CSA Z275.2. It amalgamates previous criteria for restricted and unrestricted self-contained underwater breathing apparatus (SCUBA) diving into a single new category: Occupational SCUBA diving (see Clause 6). A new competency category has been set for diving instructors (see Clause 5). In keeping with updated international standards, competency requirements for bell divers have been updated extensively (see Clause 17). In concert with the 2016 edition of CSA Z275.1, minor changes have been made to competency requirements for hyperbaric chamber operators (see Clause 22). In response to enquiries and feedback to the 2012 edition, clarifications have been made to prerequisite and competency requirements for many categories of diving.

It must be understood by the user of this Standard that the requirements contained herein are minimum levels. This Standard does not have the force of law unless mandated by legislation or referenced in the regulations of the authority having jurisdiction. The user is advised to contact the local authority having jurisdiction in the user's area to determine to what extent this Standard is referenced.

The requirements result from consensus among the Technical Committee members, who represent a broad spectrum of interests. The members were encouraged and aided by the public comments received because of the wide distribution of a draft at the public comment stage.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of the Diver Certification Board of Canada.

This Standard was prepared by the Subcommittee on Diving Competency, 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.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*

- 4) To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:
- define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
 - provide an explanation of circumstances surrounding the actual field condition; and
 - where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.

- 5) This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include “Proposal for change” in the subject line:
- Standard designation (number);
 - relevant clause, table, and/or figure number;
 - wording of the proposed change; and
 - rationale for the change.

CSA Z275.4:22

Competency Standard for diving, hyperbaric chamber, and remotely operated vehicle operations

1 Scope

1.1 General

This Standard applies to occupational diving, hyperbaric facility, and remotely operated vehicle (ROV) operations conducted in connection with all types of work and employment and describes the requirements for minimum competency levels for all personnel directly associated with the identified techniques of diving or ROV operations.

Canadian safety and health legislation requires that all workers be competent to perform the work assigned to them. It requires competency in both the theory and use of the type of diving apparatus or ROV employed.

This Standard has been established to provide diver and ROV training facilities and the diving and ROV industry with a uniform minimum level of competency necessary for the various levels of diver and ROV techniques. This level of competency will allow the diver or ROV pilot/technician to safely and competently complete the specific tasks required of occupational divers or ROV personnel.

Note: *It is recognized that certain underwater tasks can require specialized codes of practice. It is possible that competency levels that differ from the requirements of this Standard will be acceptable to the authority having jurisdiction.*

1.2 Types of diving

This Standard addresses competency requirements for the following types of diving:

- a) occupational (open-circuit) self-contained underwater breathing apparatus (SCUBA) diving;
- b) surface-supplied diving:
 - i) air (restricted and unrestricted categories);
 - ii) nitrox (restricted and unrestricted categories); and
 - iii) mixed gas; and
- c) deep diving:
 - i) bell techniques (bell);
 - ii) saturation techniques (SAT); and
 - iii) atmospheric diving system (ADS) techniques.

1.3 Types of personnel

This Standard addresses the competency requirements for the following types of personnel associated with the diving techniques specified in Clause [1.2](#):

- a) divers/pilots;
- b) tenders;
- c) dive supervisors;
- d) hyperbaric chamber operators (HCOs);