

# **Unexploded explosive ordnance (UXO), munitions, and police explosive diving**



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explosive diving***



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# Preface

This is the second edition of CSA Z275.6, *Unexploded explosive ordnance (UXO) and munitions diving*. It is part of a series of Standards on occupational diving, hyperbaric facilities, and work in compressed air environments. It supersedes the previous edition published in 2011.

While the first edition of this Standard was developed to meet the needs of contract diving operations working with the Department of National Defence (DND) involved in assessment and disposal of unexploded explosive ordnance (UXO) located underwater, the scope of this edition has been expanded to include police diving on sites where explosives are potentially present.

This Standard has been harmonized with the basic operational requirements of CSA Z275.2, *Occupational safety code for diving operations*. Specialized UXO diving requirements for training and competency in this Standard are intended to augment the basic training and competency requirements in CSA Z275.4, *Competency standard for diving operations*, and CSA Z275.5, *Occupational diver training*.

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

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

Canadian occupational health and safety legislation requires that all workers be competent to perform the work assigned to them. Workers involved in UXO diving operations require competency in the application of UXO equipment and procedures as well as in the theory and use of the diving apparatus employed in UXO diving operations. This Standard has been established to provide the diving industry with the uniform minimum levels of competency necessary for the various levels of UXO diving and with specific procedures for UXO diving operations. These levels of competency, combined with the necessary techniques, will allow divers and support personnel to safely and competently complete UXO diving tasks. As specified in this Standard, divers, tenders, and diving supervisors engaged in UXO diving are required to hold a certificate of occupational diving competency, for the appropriate category, issued by a nationally-recognized certifying agency or other body recognized by the authority having jurisdiction.

**Note:** At the time of publication of this Standard, the nationally-recognized certifying agency in Canada is the Diver Certification Board of Canada (DCBC).

This Standard was prepared by the Subcommittee on UXO and Explosive Devices Diving Operations, 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.

## Notes:

- 1) The 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

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  - relevant clause, table, and/or figure number;
  - wording of the proposed change; and
  - rationale for the change.

# CSA Z275.6:16

## ***Unexploded explosive ordnance (UXO), munitions, and police explosive diving***

### **1 Scope**

#### **1.1 General**

This Standard applies to occupational diving operations conducted in connection with unexploded explosive ordnance (UXO) and specifies minimum competency level requirements for all personnel directly associated with the techniques of UXO diving identified in this Standard and additional requirements for occupational safety during UXO diving operations.

This Standard also applies to police diving operations conducted in connection with underwater improvised explosive devices (IED's) and/or commercial explosives. The standard specifies the minimum competency level requirements for personnel involved in police explosive diving.

#### **1.2 UXO diving competencies**

##### **1.2.1**

This Standard specifies competency requirements for

- a) occupational (open-circuit) self-contained underwater breathing apparatus (SCUBA) diving; and
- b) surface-supplied diving, as follows:
  - i) restricted, surface-supplied;
  - ii) unrestricted, surface-supplied; and
  - iii) mixed gas.

##### **1.2.2**

This Standard specifies competency requirements for the following personnel associated with the diving techniques specified in Clause [1.2.1](#) as they relate to UXO diving:

- a) UXO SCUBA diver (see Clause [5](#));
- b) UXO SCUBA tender (see Clause [6](#));
- c) UXO SCUBA supervisor (see Clause [7](#));
- d) UXO restricted surface-supplied diver (see Clause [8](#));
- e) UXO surface-supplied tender (see Clause [9](#));
- f) UXO restricted surface-supplied supervisor (see Clause [10](#));
- g) UXO unrestricted surface-supplied diver (see Clause [11](#));
- h) UXO unrestricted surface-supplied supervisor (see Clause [12](#));
- i) UXO surface-supplied mixed-gas diver (see Clause [13](#));
- j) UXO surface-supplied mixed-gas tender (see Clause [14](#));
- k) UXO surface-supplied mixed-gas supervisor (see Clause [15](#));
- l) Police explosive SCUBA diver (see Clause [16](#));
- m) Police explosive SCUBA tender (see Clause [17](#));
- n) Police explosive SCUBA supervisor (see Clause [18](#));
- o) Police explosive recognition SCUBA diver (see Clause [19](#));
- p) Police explosive recognition SCUBA tender (see Clause [20](#));