



Guidelines for the Accreditation of

OCCUPATIONAL DIVER and ROV PILOT/TECHNICIAN
TRAINING

AND

COMPETENCY ASSESSMENT

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Purpose of Document

This document sets out the requirements which must be met by a commercial diver training and/or assessment organization (the organization) if they wish their graduates to be eligible to receive a certificate of competency as a commercial diver from the Diver Certification Board of Canada (DCBC).

The organization will submit a proposal for accreditation to the DCBC showing how they will train or assess candidates for certification. The proposal will include a full and complete description of the program candidates must follow in order to achieve the competencies of the CSA Competency Standard for Diving Operations (CAN/CSA Z275.4); the program description will be treated as a proprietary document by the DCBC. The proposal will form the basis of an agreement between the DCBC and the organization which will be signed by the organization's representative. The organization's signatory is the person responsible for ensuring that all the diver competencies are met and DCBC's standards complied with. If, at any time, that person is no longer able to fulfill this function, the agreement will cease to have effect and will have to be re-established.

Any changes to the agreement must be proposed to and agreed with by DCBC before they are implemented, otherwise the agreement will be reconsidered. Any health and safety enforcement action taken against the organization will automatically trigger a review of the agreement.

Note re Risk during Training:

It is considered that the training and assessment of divers takes place in an environment where the level of the risks associated with diving is increased both for the diver and the training/assessment diving staff. This is generally because the candidates have yet to achieve a level of competence to cope with unplanned underwater events. The conduct of the diving project should reflect this point in order to maintain the risk as low as is reasonably practicable particularly with respect to the size and qualifications of the diving team members conducting the assessments.

Definitions of Assessment and Training

Assessment assessment is the comparison of the competencies of the applicant with the diver competencies described in CSA Standard Z275.4. An assessment may take place during and at the end of a diver training course, **or** to assess the competency of a diver who has experience but no certification of competency.

training training is the elevation of the competencies of a trainee to the levels described in CSA Standard Z275.4. The trainee may be a novice or may be an experienced diver who has been assessed as lacking one or more of the competencies described in the standard.

Note: Definitions listed in the CSA standard Z275.4 also apply to this document.

1.0 Introduction

1.1 The Diver Certification Board of Canada

The Diver Certification Board of Canada is the only certifying body for commercial divers working in the Canadian offshore oil and gas industry. The DCBC also makes its expertise and systems available to other jurisdictions in Canada in order to encourage the use of the board as the principal certifying body for all commercial divers in Canada.

As the basis for the above-noted certification regime the Board uses the Canadian Standards Association Competency Standard for Diving Operations (Z275.4). The Board will maintain a confidential database of all divers holding the certification of the Board

1.2 CSA Diving Competency Standard Z275.4

The Canadian Standards Association has produced a standard for diving competencies titled **Competency Standard for Diving Operations Z275.4**. This Standard forms the basis for all DCBC standards and includes competency standards for the following levels of diving competency:

- Restricted SCUBA Diver**
- Unrestricted SCUBA Diver**
- SCUBA Supervisor**
- SCUBA Tender**
- Restricted Surface Supplied Diver**
- Unrestricted Surface Supplied Diver**
- Surface Supplied Mixed Gas Diver**
- Surface Supplied Tender**
- Restricted Surface Supplied Supervisor**
- Unrestricted Surface Supplied Supervisor**
- Surface Supplied Mixed Gas Supervisor**
- Bell Diver**
- Bell Diving Tender**
- Bell Diving Supervisor**
- ADS Pilot**
- ADS Technician**
- ADS Supervisor**
- Hyper baric Chamber Operator (HCO)**
- Hyperbaric Life Support Technician (LST)**
- Diving Medical Technician**
- Offshore Diving Safety Specialist (DSS)**
- Oxygen-enriched-air SCUBA diver**
- Oxygen-enriched-air Surface Supplied Diver**
- Oxygen-enriched-air diving supervisor (SCUBA & Surface Supplied)**
- Remotely Operated Vehicle (ROV) (Pilot/Technician)**

1.3 Certification of graduates by the DCBC

The DCBC may issue a certificate to a candidate who successfully completes a diver training course or competency assessment, provided the training or assessment has been conducted by an organization which is recognized by the DCBC to train in a manner which will allow trainees to achieve the competencies described in CSA Standard Z275.4.

2.0 **Cost of accreditation**

Accreditation is carried out on a cost recovery basis. Although training and assessment organizations that wish to be accredited to the DCBC must deal directly with DCBC, part of the audit process may be sub-contracted to commercial diving subject-matter experts and the cost of those experts must be recovered.

The cost of accreditation will depend, to a great degree, on the clarity, or complexity, of the proposal presented by the organization to the DCBC. Organizations should expect to pay approximately \$6000.00 CAD.

3.0 **Training organization auditing requirements (DCBC)**

Note: *This Clause is intended to provide those involved in occupational diver training with guidance relating to the auditing and monitoring of their organization, courses, facilities, and instructors.*

3.1 Risk management

The training and assessment of unqualified divers has the potential to increase the level of risk associated with diving for both the diver and the training/assessment diving staff. This is generally because the candidates have yet to achieve a level of competency to cope with unplanned underwater events. Diving project plans and practical procedures shall reflect this point in order to keep the risk as low as is reasonably practicable, particularly with respect to the size and qualifications of the diving team conducting the assessments.

3.2 Certification

The DCBC may issue a certificate to candidates who successfully complete diver training or competency assessments, provided that

- (a) the training or assessments have been conducted by a commercial diver training and/or competency assessment organization that has met the requirements of this Standard; and
- (b) there is a signed agreement between the DCBC and the organization.

Diver training and/or competency assessment organizations interested in providing diver competency assessments shall demonstrate to the DCBC that they meet the requirements set out in this Standard.

3.3 Facility/location

A diver training and/or assessment organization shall use facilities suitable for the required standard of assessment and/or training of candidates.

Required equipment shall be maintained in good working order and shall be serviced to manufacturer specifications. The organization shall ensure that all required and personal protective equipment is adequate and in good working order.

Organizations shall have access to sufficient depths of water to allow for the practical training and assessments specified in this Standard.

3.4 Diver trainee's minimum entrance requirements

All trainees shall be in possession of a valid certificate of medical fitness to dive, issued by a diving physician in accordance with CSA Z275.2, Clause 3.2.1 and Annexes A and B.

The trainee shall, as a minimum, be able to understand written and verbal communications, perform basic mathematical calculations appropriate to the program, and communicate effectively with other students and instructors.

3.5 Assessment during training

The trainee shall be assessed regularly (e.g., weekly) during training using both practical and written examinations. Assessment results, which shall be documented, shall be communicated to the trainee on a regular basis. Any trainee failing to reach the required standard shall be given a verbal warning on the first occasion. If a trainee continues to fail to meet the required performance standard, a further warning shall be given in writing, stating that a failure to improve will result in the termination of training.

3.6 Instructor qualifications and instructor/student ratios

3.6.1

Lead instructors (supervisors of in-water dive training operations) shall have at least 5 years logged supervisory experience in the category in which they are training, including 250 logged days as supervisor, and shall be DCBC certified. Days of experience as an assistant instructor may be recognized as days of supervisory experience.

3.6.2

Assistant instructors of in-water diving operations shall be DCBC certified supervisors in the category in which they are training.

3.6.3

Instructors shall have successfully completed a recognized instructor training program. Such instructor training (such as a train-the-trainer course) shall be provided by an agency recognized by the education authority having jurisdiction.

3.6.4

The standby diver shall have all theoretical and practical standby diver training in the category in which they are diving and have demonstrated these skills to the satisfaction of the lead instructor (supervisor of in-water activities), including

- a) 5 h minimum bottom time; and
- b) a minimum of 30 min bottom time at the current working depth.
- c) four emergency drills, including drills of a trapped, fouled, and unconscious diver.

3.6.5

The organization shall complete and document hazard and risk assessments. These assessments are intended to evaluate equipment and training team (instructor/diver ratio) needs for all depths and environmental conditions.

3.6.6

For all diving operations there shall be, as a minimum,

- a) an instructor and a standby diver on site;
- b) an assistant instructor within 5 min of the site; and
- c) a hyperbaric physician (Level 2) on call (as defined in CSA Z275.2).

Consideration should be given to also having a diving medical technician located close to the site based on a risk assessment of the dive operation.

3.6.7

For non-decompression diving, there shall be

- (a) a maximum of 4 divers in the water per instructor on site; and
- (b) a maximum of 2 additional divers in the water per assistant instructor on site.

3.6.8

For decompression diving, there shall be

- (a) a maximum of 2 divers compressing or committed to decompression per instructor on site; and
- (b) a maximum of 1 additional diver compressing or committed to decompression per assistant instructor on site.

3.7 Applying for recognition as a training and/or assessment organization

3.7.1

Clauses 3.7.2 to 3.7.5 describe the minimum requirements for submissions for recognition as a training and/or assessment organization to the DCBC.

3.7.2

The commercial diver training and/or assessment organization shall submit a written proposal, in English or French, explaining how it will ensure that the requirements of the CSA Z275.2 Training Standard are met, will continue to be met, and how quality assurance will be maintained.

3.7.3

The submission defined in Clause 3.7.2 shall include the organization's health and safety policy, management and responsibility assignments, risk assessments, and arrangements for keeping safety policy and procedures up to date.

While generic risk assessments may be submitted, these shall be accompanied by a system for undertaking diving-project-specific risk assessments and by procedures to ensure that the risk assessment system is followed in practice.

3.7.4

The submission defined in Clause 3.7.2 shall document, for each of the relevant competencies outlined in CAN/CSA-Z275.4, how the organization will assess candidates and what method(s) will be used to establish that the candidate is ready to be assessed. It shall include details, plans, and methods for the following:

- (a) the registered name of the organization and its address;
- (b) an explanation of the management structure of the organization and the name of the primary designated signatory and the deputy who will act for the primary person in his or her absence;
- (c) the name of a contact person for the organization, whom the DCBC may contact for general inquiries, as well as telephone and facsimile numbers, an e-mail address, and a web site;
- (d) the organization's diving project plans;
- (e) the method(s) used for establishing the medical fitness of all candidates prior to commencing diver competency assessments;
- (f) the method(s) used for establishing that a candidate is ready for assessment;
- (g) the assessment program, structure, and sequence;
- (h) the method(s) used for monitoring candidate performance while they are in the water, e.g., an assessor in the water, use of video, etc.;
- (i) how the competencies will be met over a range of required considerations, e.g., seabed conditions, equipment used, etc.;
- (j) provision for all students to have access to a copy of CAN/CSA-Z275.4 competencies so that students are aware of what is required prior to assessment taking place;
- (k) any work tasks intended to be scheduled while assessment is taking place;
- (l) methods to ensure consistent, impartial, and fair assessment of each candidate;
- (m) plans of the dive sites/platforms to be used, including water depths, tidal conditions, access and egress to the water, and any in-water or bottom features that might be a hazard to the diver;
- (n) emergency arrangements for each dive site, including the emergency communications system and transportation in an emergency;
- (o) the proposed daily working hours expected of the candidates, including the schedule for travel, preparation, meal breaks, study time, etc.;
- (p) a list of plant and equipment to be used and the maintenance, servicing, and documentation systems, including methods to ensure that defective equipment will be taken out of service;
- (q) a list of competent persons for the maintenance of equipment that indicates how competency has been achieved;
- (r) a current version of the organization's diving operational procedures;
- (s) systems for keeping records of the outcome of each assessment of each competency for every candidate, with easy reference to the assessment standards.

Note: *The DCBC requires the system to include a signed and dated declaration by the assessor that the competency was achieved and was recorded on the day it was achieved;*

(t) approaches for overcoming any difficulties candidates may have in achieving competencies, and the method of recording actions to remedy the situation if the candidate is allowed to continue with the diver competency assessment process;

(u) methods to address any unsatisfactory performance or conduct, including possible disciplinary action against a candidate, and the associated record keeping;

(v) copies of the proposed-daily-diving operations log required by regulations, including pre-dive checks.

The names and duties of all dive team and assessment staff at the dive site shall be included together with the pre-dive equipment check; and

(w) methods to ensure that the trainees record their dives accurately in their daily record of diving.

3.7.5 The audit

An audit team shall visit the organization on behalf of the DCBC to assess the overall facilities, management, and diving training plan, with particular emphasis on

(a) health and safety policy, the safety management system, risk assessments, the diving project plan(s), diving plant and equipment, and dive sites;

(b) training team size and qualifications;

(c) emergency arrangements;

(d) access to medical advice, both for normal and emergency situations;

(e) the maintenance system and documentation, quality assurance system, and implementation program; and

(f) roles and responsibilities of team members.

3.8 Safety focus of audits

The aim of the audit described in Clause 3.7.5 is to ensure that diver training is conducted in accordance with the highest safety standards and that divers are trained and assessed in accordance with the relevant CSA diving competency requirements.

The DCBC may ask for changes to be made before allowing diver training or competency assessments to commence.

3.9 Acceptance, certification, and monitoring

3.9.1

Clauses 3.9.2 to 3.9.7 describe the acceptance, certification and monitoring of training and/or assessment programs accredited by the DCBC.

3.9.2

If the certification application is successful, the DCBC shall give written acceptance of the diver training and/or competency assessment course for each of the CSA-recognized levels of diver competency that have been audited.

3.9.3

Provided that the training and/or assessment program meets the requirements of this Standard, the DCBC may issue certificates of competency to successful candidates on the recommendation of the organization.

3.9.4

If the audit described in Clause 3.7.5 is satisfactory, accreditation shall be given for a period of 5 years. The organization's director or manager shall be required to provide an annual report, in a format decided by the DCBC, confirming that the organization continues to train in accordance with their original submission. Training shall not deviate from the original submission without prior written permission from the DCBC.

3.9.5

Organizations shall be audited at least once during the 5 year accreditation period by the DCBC's auditor during the period that diver training or competency assessments are being provided. These inspections shall assess and audit

- (a) compliance with health and safety legislation;
- (b) management of health and safety;
- (c) practical implementation of diving projects;
- (d) ability to conduct diver competency assessments;
- (e) standards of assessment;
- (f) compliance with applicable safety policy
- (g) the material included with the application; and
- (h) documentation of assessment results.

3.9.6

The organization shall not make significant changes to its arrangements as detailed in its submission without prior written permission from the DCBC, and in particular shall not

- (a) employ new assessment and/or diving team staff or redeploy such staff to different areas of work; or
- (b) use dive sites not already approved, without prior agreement.

3.9.7

Certification can be withdrawn, for just cause, by the DCBC at any time. In particular, certification shall be withdrawn if

- (a) there is inadequate management of health or safety, whether or not the inadequacies have resulted in enforcement action;
- (b) the organization is not complying with its original submission and the terms of the certification agreement;
- (c) the standards of assessment of the candidates are inadequate;
- (d) the documentation of the assessment results is inadequate; or
- (e) the requirements of this Standard are not being followed.

3.10 Design of training and/or assessment courses

3.10.1

The training organization is responsible for the effective training or assessment of candidates and the sequence of training activities.

3.10.2

Theoretical and practical training elements shall comply with the latest CSA diving Standards. The organization shall develop a training strategy and document it in its submission to the DCBC.

3.10.3

Training and assessments shall be comprehensive. The organization shall demonstrate to the DCBC that candidates have conducted the required underwater exercises to a satisfactory level.

3.10.4

An operational plan and a contingency plan shall be developed for each training and assessment exercise.

The contingency plan shall include a separate risk assessment for each dive site and for each phase of the training or assessment, taking into account the candidates' diving ability at that phase of the training or assessment.

3.10.5

The contingency plan described in Clause 3.10.4 shall consider emergencies where the standby diver would be deployed. The plan shall demonstrate that the instructor can safely control the situation without calling for additional support, especially when the assistant instructor may be deployed in the water at the time of the emergency. Weather, tidal, and other conditions that may influence the conclusion of the training or assessment shall be stated explicitly.

3.10.6

Wherever possible, there should be continuity in the staff of a course, particularly with part-time training. Where this continuity is not possible, alternative measures shall be taken to ensure that instructors/assessors are fully briefed on the confidence and capabilities of candidates. On longer courses, there shall be provision for revision of practical and theoretical aspects at the start of each term or after an extended interruption of training.

3.11 Record keeping

3.11.1

A record of the assessments/examinations completed shall be maintained in such a way that each candidate can clearly see at any time what has been achieved and what is left to achieve.

3.11.2

A diver's daily record shall be completed by each candidate and checked and signed off by the supervisor after each day in which diving takes place.

3.12 Theoretical assessments

3.12.1

Theory is only one part of the assessment of a candidate, but it is a significant part. Theoretical exams shall be conducted under accepted exam conditions for formal academic examinations.

3.12.2

The pass mark of all theoretical assessments shall be a value that represents a sound knowledge of the required subject material.

3.13 Failure of practical assessments

3.13.1

Candidates who fail a practical assessment, indicating their safety could be compromised in subsequent training, shall not continue in the training course until receiving appropriate remedial training and passing the assessment.

3.13.2

Candidates shall be made aware as soon as possible of any areas in which they are encountering difficulty or demonstrating failure. The organization shall have outlined its preferred method of dealing with this failure in its original submission to the DCBC. The organization shall keep a written record of failure to achieve a competency and the manner in which it was addressed, in case of any later appeal.

3.14 Appeal policy

3.14.1

The training organization shall have a written policy concerning the right of a candidate to appeal an assessment decision.

3.14.2

If the training organization decides not to recommend that a candidate be given a DCBC certificate of diver competency because they have failed to reach the required standard, the candidate shall be given a copy of the appeal policy and informed about the appeal process.

3.15 Incident reports

All incidents requiring hyperbaric or medical treatment shall be reported to the DCBC in writing within 30 days of the incident.