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24.1 Definitions

In this Part

"altitude diving" means any dive performed over 300 m (1 000 ft) above sea level;

"atmospheric diving system (ADS)" means a diving system capable of withstanding external pressures greater than atmospheric pressure, and in which the internal pressure remains at one atmosphere, and includes a one person submarine and a one atmosphere compartment of a diving submersible;

"atmospheric pressure" means pressure at the surface of the water, normally considered to be 101.3 kPa (14.7 psi);

"bailout bottle" means an independent breathing gas supply carried by the diver, of sufficient quantity to return the diver to the surface, bell or emergency supply in the event of a malfunction of the primary breathing gas supply;

"bottom time" means the total elapsed time, rounded to the next whole minute, from the time the diver leaves the surface to the time the diver begins final ascent;

"chamber operator" means a person who has demonstrated capability in operating the controls of a recompression chamber and is knowledgeable and competent in diving tables and the application of treatment tables;

"construction diving" means any diving operation that involves burning, welding, erection, alteration, dismantling, demolition, structural maintenance and inspection, excavating, salvage, boring, blasting, concreting and the installation of any machinery or equipment;

"contaminated environment" means a workplace that contains or may contain chemical, biological or radiological material in sufficient concentration that, should any quantity of it be ingested, absorbed, adsorbed or inhaled, will likely endanger the health or safety of the worker;

"contamination reduction zone" means the area used to dress and undress divers, transfer workers from the exclusion zone, and decontaminate personnel and equipment;

"crewmember" for the purposes of sections 24.69 to 24.143, means any person who is working on a fishing vessel;

"decompression illness" means a dysfunction caused by exposure to a reduction in pressure resulting in the production of bubbles in the body;

"deep diving" means any diving operation to depths greater than 50 m (165 ft);

"dive profile" means a logged schedule of the diver's activities during any diving operation, which includes the time the surface was left, depth, decompression, repetitive dives and other information concerning the diving operations;

"dive site" means any location where a diving operation takes place including a boat, scow, float, raft or platform which is seaworthy, secure, and of sufficient size to safely accommodate all workers and equipment without overcrowding;

"diver's harness" means a harness, fitted with a positive buckling device and an attachment point for a lifeline, that will prevent any strain on the diver's mask, helmet and umbilical, that is worn by the diver and is strong enough to lift the diver from the water in an emergency;

"diver's tender" means a worker who is competent and knowledgeable in the diving apparatus being used, the diving operation in progress, emergency diving procedures and communications between diver and tender;

"diving supervisor" means a person having complete and direct responsibility for the diving operation who is knowledgeable and competent with the diving equipment, the diving operations in progress, emergency diving procedures, diving physics and physiology and medical aspects of diving;

"emergency breathing supply" means the bailout bottle carried by the diver and may include the high pressure breathing medium bottle carried on the diving stage;

"exclusion zone" means the workplace at the surface from which divers are tended during a contaminated diving operation;

"fish" means any species of animal living in water, including its eggs or roe;

"fishing vessel" means any commercial vessel used in catching fish or collecting or transporting fish for landing;

"lifejacket" means a device that

(a) when worn correctly, provides a specified buoyancy that will turn the wearer face-up on entering the water, and will keep the wearer in this position, and

(b) is of a type of lifejacket that has the approval, and bears a mark or label indicating that approval, set out in section 7(1) and (2) of the Small Vessel Regulations (Canada);

"lifeline" means a rope of 16 mm (5/8 in) diameter, of polypropylene or other synthetic fibre of at least equal strength, which is secured to the diver and to a permanent fixture at the surface;

"live boating" means the support of a surface supplied diver from a vessel under way;

"lock-out submersible (or LOS)" means a self-propelled submersible fitted with a submersible compression chamber from which a diving operation can be carried out and that has a separate one atmosphere chamber from which the submersible is operated;

"master" for the purposes of sections sections 24.69 to 24.143, means the person in overall command of a fishing vessel;

"medical recompression" means treatment of a diver in a compressed air environment, in a recompression chamber, in accordance with established practice or medical direction, to alleviate symptoms resulting from a previous decompression;

"mixed gas" means a mixture of breathable gases other than atmospheric air;

"no decompression limit" means that in accordance with the diving table in use for the depth and duration of the dive, no decompression stop is required;

"owner" for the purposes of sections sections 24.69 to 24.143, means the person who holds legal title to a fishing vessel and also includes a charterer of a fishing vessel;

"personal flotation device" means a device that

(a) when worn correctly, provides a specified buoyancy to support a conscious person in an upright or backward leaning position, but is not designed to turn a person from a face-down to a face-up position in the water, and

(b) is of a type of personal flotation device that has the approval, and bears a mark or label indicating that approval, set out in section 7 of the Small Vessel Regulations (Canada);

"recompression chamber" means a system consisting of one or more pressure vessels for human occupancy, with associated utilities, controls and instrumentation, whose purpose is to support diving operations, hyperbaric treatment, dive simulation and/or scientific study and equipment testing;

"reserve breathing supply" means a secondary supply, other than the bailout bottle, of a breathing medium of the appropriate mixture and of sufficient quantity to enable the diver to return safely to the surface with all appropriate decompression stops;

"scuba" means self-contained underwater breathing apparatus;

"stage" means a suspended work platform such as a cage, basket or platform in which 2 divers may be lowered to or raised from an underwater worksite;

"submersible compression chamber (or SCC)" means a chamber that is intended to be submerged and that is designed to transport a person at atmospheric pressure or divers at pressures greater than atmospheric pressure from the surface to an underwater work site and back and includes the compression chamber of a diving submersible;

"support zone" means the workplace used in support of the diving operations and where the cleaning and/or disposal of diving equipment may take place;

"surface supply diving" means supplying air or a mixture of gases to a diver through a hose from the surface;

"umbilical bundle" means a combination of hoses and cable, including a lifeline or strength member attached in a manner to prevent stress on the diver's hose, which is capable of supplying a breathing mixture or other services as required such as power, heat, cooling, communications and depth (kluge) indicating hose;

"working alone" means working in circumstances where assistance would not be readily available to a crewmember if the crewmember fell overboard.

[Amended by B.C. Reg. 14/2019, effective June 3, 2019.]

24.2 Ladders

Fixed ladders must be provided at every dock for access to and egress from the water, and must

(a) be spaced at intervals not exceeding 30 m (100 ft),

(b) extend from the top of the dock to at least 1 m (3.3 ft) below the lowest water level,

(c) be maintained free of barnacles and marine growth, and

(d) have their location identified by high visibility paint on the curb or bullrail.

24.3 Lifesaving equipment

(1) Appropriate lifesaving equipment must

(a) be provided and maintained for the rescue of any worker in danger of drowning, and

(b) be positioned at intervals not exceeding 50 m (165 ft) in conspicuous locations as near as practicable to the danger area.

(2) Throwing lines fitted to lifebuoys or similar equipment must be of suitable size and length and made of buoyant material.

(3) For the purposes of this section, lifesaving equipment includes lifebuoys, throwing bags, grapples, boat hooks or other equipment appropriate to the circumstances.

24.4 Curbs, bullrails, guardrails and barriers

(1) A curb or bullrail must be installed along the open sides of each float, dock, wharf, pier and similar other area where mobile equipment might be used.

(2) Each curb and bullrail must be of substantial construction and be at least 25 cm (10 in) high.

(3) Where practicable, guardrails meeting the requirements of Part 4 (General Conditions) must be installed at

(a) dangerous breaks in the continuity of a wharf, dock or pier, and

(b) dangerous corners, edges and other parts of a wharf, dock or pier.

(4) Moveable warning barriers may be used where the use of standard guardrails is impracticable.

(5) Effective warning barriers must be installed across the entrances of barge and ship loading ramps when the ramps are not in use.

24.5 Markings

(1) Where circumstances require, curbs, bullrails, guardrails and barriers must be painted solid yellow, yellow and black stripes or checkers, or yellow against a suitable contrasting background.

(2) Retroreflective paint or patches must be applied to curbs, bullrails, guardrails and barriers where mobile equipment is operated at night.

24.6 Rescue boat

A suitable boat must be provided and kept ready for immediate use when workers are employed in situations where a boat is necessary for rescue or evacuation.

24.7 Application

Sections 24.7 to 24.68 apply to all persons involved in any occupational diving operation.

24.8 Supervisor's responsibility

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

24.9 Notice of project

(1) The employer must submit a notice of project for diving activity, or notify the Board by telephone, at least 24 hours before commencing a diving operation which involves

(a) construction diving,

(b) engineering inspection diving,

(c) diving in a contaminated environment,

(d) diving under ice, under or between nets, or into other areas of potential entrapment,

(e) exceeding the no-decompression limit, or

(f) the use of mixed gas other than nitrox as a breathing medium.

(2) The notice of project must indicate the date, the location, the diving equipment to be used and the scope of the diving operation.

(3) Before diving commences, a copy of the notice of project must be posted at the worksite, or if notification is provided by telephone, a written summary of that notification that contains the information required by subsection (2) must be posted at the worksite.

(4) If in an emergency it is not practicable to notify the Board prior to the start of a diving operation, the Board must be notified as soon as possible, but no later than 24 hours after the diving operation has begun.

[Amended by B.C. Reg. 253/2001, effective January 28, 2002.]

24.10 Medical certification

(1) The employer must ensure that each diver has current medical certification, from a physician knowledgeable and competent in diving medicine, before commencing diving operations.

(2) A diver's medical certification must be

(a) established prior to entry into any commercial diving activity,

(b) renewed every 2 years up to age 39 and annually from age 40 onwards,

(c) renewed more frequently than required by paragraph (b) if clinically indicated, and

(d) re-evaluated by a physician knowledgeable and competent in diving medicine if the diver is subjected to an event or has a physical condition which may affect the diver's medical status.

(3) A copy of each diver's medical certification must be kept at the dive site.

Note: WorkSafeBC maintains a list of physicians knowledgeable and competent in diving medicine.

24.11 Diver's fitness

(1) A diver must not dive if, in the opinion of the diving supervisor, the diver is incapable of functioning safely underwater.

(2) A diver must be medically re-examined, as required by the diving supervisor, to ensure that the diver is fit to dive.

(3) Divers, standby divers and divers' tenders must not participate in any diving operation if they are physically or emotionally fatigued or if they have consumed drugs or alcohol which would impair their ability to work safely.

24.12 Training

(1) A diver must not dive unless the diver has been thoroughly trained in the theory and use of the diving apparatus that the diver will be using.

(2) The training required by subsection (1) must be provided by a person or agency acceptable to the Board.

(3) All divers, diving supervisors and divers' tenders must be trained in CPR, oxygen (O_2) therapy, and diving accident management.

24.13 Evidence of competency

(1) The employer and diving supervisor must ensure that all divers

(a) meet the minimum requirements of *CSA Standard Z275.4-97 Competency Standard for Diving Operations*, and

(b) are competent to use the diving equipment that will be used in the diving operation.

(2) A certified copy of competency documents for each diver must be available for inspection on site by an officer.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.14 Diving logs

(1) Each diver must have, and keep for 2 years after the last entry, a personal log containing a record of all

(a) dives carried out, and

(b) medical recompressions and other exposures to a compressed air/mixed gas environment.

(2) The records in a diver's personal log must be in chronological order and each dive must be verified and initialled by the diving supervisor.

(3) The records for each dive must include

(a) the type of diving apparatus used and the gas medium breathed,

(b) the times the diver left the surface, reached and left the bottom, and returned to the surface,

(c) the maximum depth attained,

(d) the surface interval, if a repetitive dive,

(e) the decompression tables that were used,

(f) the date the dive was undertaken, and

(g) remarks (such as name of employer, unusual incidents).

(4) The diving supervisor must keep a separate log of the diving operation containing the information required by subsection (3).

(5) The diving supervisor's log must be filed with the employer upon completion of the operation.

(6) All current logs must be available at the dive site for inspection by an officer.

24.15 Dive site equipment

When diving is in progress, the dive site must be provided with

(a) a current list of facilities with hyperbaric chambers capable of providing emergency treatment,

(b) the locations and phone numbers of the nearest hospital and available emergency assistance,

(c) if the no-decompression limit is to be exceeded, a 16 mm (5/8 in) synthetic line, marked at appropriate intervals for decompression stops, weighted and of sufficient length to reach the maximum depth for the dive,

(d) a first aid kit and an oxygen (O_2) therapy unit with sufficient capacity to reach emergency medical services,

(e) one complete set of acceptable dive tables and one copy of this Regulation,

(f) an appropriate means for entering and leaving the water, including a means for rescuing an incapacitated diver,

(g) equipment to provide voice communication with emergency services personnel, and

(h) other equipment as may be required by the Board.

[Amended by B.C. Reg. 348/2003, effective March 30, 2004.]

24.16 Lifelines

Divers tended on a lifeline must wear a suitable diver's harness and lifelines must be

(a) securely fastened to the diver's harness, but not attached to the diver's weight belt,

(b) free of knots and splices,

(c) secured to a permanent fixture at the surface, and

(d) tended at all times by a diver's tender.

24.17 Safe diving procedures

(1) Every employer engaged in diving operations must prepare and publish a set of safe diving procedures which include

(a) safe procedures and health requirements for each type of diving in which workers may be involved,

(b) all the procedures to meet the applicable requirements of this Regulation, and

(c) emergency, evacuation, and rescue procedures.

(2) The safe diving procedures must be kept at the dive site, readily available to all workers, and available for inspection by an officer.

24.18 Diving supervisor's worksite duties

(1) Each diving operation must be directed by a diving supervisor whose duties include

(a) evaluating the hazards,

(b) planning the dive,

(c) briefing the crew,

(d) ensuring that all needed equipment is available and in good working condition, and

(e) controlling the entire diving operation.

(f) Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

(2) The diving supervisor must prepare a detailed plan of the diving operations which must be given to the worksite employer before diving commences.

(3) The diving supervisor must

(a) remain in the dive area during diving operations,

(b) delegate the supervisory responsibilities to another diving supervisor, if required to enter the water, and

(c) suspend diving operations if conditions become unsafe.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.19 Crew briefing

Immediately before each dive, the diving supervisor must brief all persons involved in the diving operations about

(a) the hazards which may be encountered during the dive,

(b) the intended duration of the dive and the maximum depth to be reached,

(c) decompression procedures to be followed,

(d) the location of other divers,

(e) the work to be done,

(f) specific recall signals, and

(g) emergency procedures to be followed.

24.20 Diver's responsibilities

(1) Each diver must satisfy the diving supervisor that the diver fully understands the signals and procedures in use.

(2) Except in the case of accidental or unavoidable circumstances, a diver must not remain or be permitted to remain at any depth longer than the

maximum time planned for that dive.

(3) In any diving operation the diver must inform the tender or diving partner and must proceed to the surface under any of the following conditions:

(a) if any malfunction in diving gear occurs;

(b) on receipt of any signal which cannot be understood;

(c) at the onset of any symptoms of physical or psychological distress;

(d) on receipt of a recall signal;

(e) when the main air supply is near depletion;

(f) if the emergency apparatus/air supply is being used;

(g) in the event of excessive leakage to a dry type of diving suit which may affect the diver's buoyancy.

[Amended by B.C. Reg. 116/2022, effective August 22, 2022.]

24.21 Diving tables

(1) Diving operations, repetitive dives, and treatment of divers, must be carried out in strict accordance with tables and procedures published or approved by the Defence and Civil Institute of Environmental Medicine (Canada).

(2) Sport diving tables must not be used.

(3) Diving computers must not be used in place of primary diving tables.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]
[Amended by B.C. Reg. 14/2019, effective June 3, 2019.]

24.22 Decompression procedures

(1) During diving operations which require decompression, a reserve breathing supply with sufficient reserve to bring divers to the surface with appropriate decompression stops must be available and ready for immediate use.

(2) Whenever planned dives will exceed the no-decompression limit

(a) the divers must be equipped with a bailout bottle containing a minimum 1.4 m^3 (50 ft^3) of breathing medium,

(b) an approved double lock hyperbaric chamber in operable condition with overriding outside controls and appropriate air facilities must be located so that travel time by available transport will not exceed 30 minutes,

(c) if the planned decompression time will exceed 15 minutes the hyperbaric chamber must be on the dive site, and

(d) a chamber operator must be available on the surface at the dive site or at the hyperbaric chamber.

(3) A dive must not exceed the no-decompression limit if the hyperbaric chamber is occupied.

24.23 Diver care and transportation

(1) The diving supervisor must ensure that on completion of decompression, the diver remains under observation in the general area of the hyperbaric chamber for a period of time to ensure the well-being of the diver.

(2) If a diver shows signs of pressure related illness or requires therapeutic recompression, the diving supervisor must ensure that treatment is initiated immediately and a physician knowledgeable in hyperbaric medicine is notified.

(3) If it is necessary to transport a diver suffering a diving ailment by air, provision must be made to furnish the patient with oxygen and the flight altitude must be prescribed by the attending physician or the diving supervisor.

24.24 Medical alert tag

A diver must wear a medical alert tag or bracelet stating the diver's status and indicating the possibility of decompression sickness or other diving illness, for at least 24 hours after completion of diving.

24.25 Hyperbaric chambers

Hyperbaric chambers must conform to standards acceptable to the Board and must be provided with

(a) a means of extinguishing a fire,

(b) an oxygen monitoring device,

(c) an oxygen delivery system with a built-in breathing system (BIBS), and

(d) an adequate supply of air, including an emergency reserve supply to complete any decompression and treatment procedures.

24.26 Breathing mediums

(1) If air is used as the respirable medium in diving operations it must meet the requirements of *CSA Standard CAN/CSA-Z275.2-92, Occupational Safety Code for Diving Operations*, with the exception of the water vapour standard.

(2) The air supplied by compressors for breathing air in diving operations must be tested at least annually to ensure that it meets the requirements of subsection (1).

(3) If mixed gases in other than the normal proportions of respirable air are used for breathing by divers, the diving supervisor must ensure that

(a) the diving procedures and schedules of work, and decompression are in accordance with the recommendations of a competent authority, and

(b) prior written authorization has been received from the Board to use mixed gases other than nitrox and that the authorization is kept on the dive site, available for inspection by an officer.

(4) The following requirements apply to operations using nitrox mixes:

(a) procedures and mixes must be acceptable to the Board;

(b) all workers involved with nitrox diving must be trained in the procedures to a standard acceptable to the Board;

(c) proof of training and a copy of the operating procedures must be readily available at each dive site.

24.27 Breathing apparatus

(1) All breathing apparatus and associated delivery systems must be correctly installed and tested for function before each use.

(2) The breathing apparatus, accessories and applicable service records must be available for inspection by an officer, and service records must be available to workers on the dive site.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.28 Compressor intake

The compressor intake must be located so that the breathing medium will not be contaminated by gasoline vapours, engine exhausts, or other objectionable impurities.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.29 Gauges and meters

(1) Gauges and meter equipment must be tested every 6 months or whenever a malfunction is detected, and errors found must be corrected without delay.

(2) If the equipment is removed from service, the specific problem with the equipment must be identified.

24.30 Warning devices

When any diving activity is taking place, warning devices must be displayed as follows:

(a) marker buoys must be used to display warning devices (flags, lights, lamps, or flares) to define the limits of the diving area, and boats other than those connected with the diving activity must be kept clear of the diving area;

(b) in navigable waters the recognized diver's flag must be flown or prominently displayed;

(c) flags and signals used for work site identification must only be displayed during active diving operations.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

Note: The recognized diver's flag is a red square with a white diagonal stripe from the upper hoist to the lower fly.

24.31 Rescue boat

If divers are operating from floating equipment, a suitable power boat, ready for immediate use, must be available on the dive site, for rescue or escape.

24.32 Hoists

(1) If a hoisting device is required to lower or raise the diver it must not be used for any other purpose until the diver has been recovered.

(2) All directions to the hoist operator must be given by either the diver, the diver's tender or the diving supervisor.

24.33 Standby diver

(1) A standby diver must be

(a) on the dive site and able to render assistance at all times when diving operations are in progress,

(b) trained and equipped to operate at the depths and circumstances of the dive, and

(c) able to enter the water in one minute.

(2) A standby diver on the surface may also perform other duties provided such duties do not compromise the standby diver's ability to promptly render emergency assistance to the divers.

(3) When the diving supervisor can assure that the depth of the dive will not exceed 18 m (60 ft) and no hazards are present, 2 divers in the water may act as standby for each other provided that

(a) each diver is free swimming,

(b) the no-decompression limit is not exceeded,

(c) each diver has been trained to effectively rescue a diver in trouble and has demonstrated this ability to the diving supervisor's satisfaction,

(d) the divers are in close proximity to each other at all times so as to be able to effect rescue, and

(e) the divers are in constant audio communication with each other and the surface, or when using scuba they maintain constant physical or visual contact with each other.

(4) In subsection (3) **"no hazards are present"** includes but is not limited to a dive made in good weather conditions, where there are no appreciable currents, where there is good underwater visibility, no possibility of entanglement with underwater objects, and good access and egress to and from the dive site.

24.34 Incident investigation reports

(1) An incident investigation report meeting the requirements of the OHS provisions of the *Workers Compensation Act* must be submitted to the Board as soon as possible if any of the following occurs during a diving operation:

(a) injury or death;

(b) convulsions or serious impairment of consciousness during or after a dive;

(c) decompression illness;

(d) lung overpressurization;

(e) any serious mishap, even though the diver escapes actual injury, or a series of events which render equipment or procedures suspect, before, during, or after the diving operation.

(2) The facts must be recorded as soon after the incident as possible, and the report must include the dive profile and all relevant details.

(3) In the event of any diving incident,

(a) the Board reserves the right to take temporary possession of and investigate all equipment related to the diving operation, and

(b) the equipment must not be tampered with or altered in any manner until authorization has been received from the Board.

[Amended by B.C. Reg. 195/2015, effective February 1, 2016.]
[Amended by B.C. Reg. 279/2019, effective April 6, 2020.]

24.35 Communication

Each diver using scuba must

(a) employ the buddy system whereby 2 divers remain, at all times, in constant visual or physical contact and both surface immediately if they lose that contact,

(b) be tended on a lifeline by a diver's tender,

(c) be in constant audio communication with the surface, or

(d) be tethered, with a minimum 10 mm (3/8 in) diameter synthetic line or equivalent, to an identifiable float located on the surface that is constantly visually monitored from a location that allows immediate assistance to be rendered in case of emergency.

24.36 Minimum crew

(1) A minimum crew of 3 workers must be present on each dive site if the dive will

(a) not exceed 18 m (60 ft) in depth, and

(b) remain within the no-decompression limit, and

(c) be made where it is known there is no hazard of entrapment.

(2) When using the buddy system, a minimum of 2 divers must be present, and a third person must stay on the surface as a supervisor/tender.

(3) When using lifelines, floats or audio communication with the surface,

(a) a standby diver and a supervisor/tender must be on the surface, and

(b) a tender must tend only one scuba diver unless the divers are on floats, or have lifelines and effective 3-way voice communication, in which case the tender may tend 2 divers.

(4) When a dive does not meet the requirements of subsection (1), then

(a) a standby diver and a supervisor/tender must stay on the surface, and

(b) if not using the buddy system, a single diver must be tethered and carry a bailout bottle.

24.37 Restrictions on scuba

(1) Scuba must not be used in underwater construction, burning, welding, salvage operations, demolition, jetting and suction dredging or other diving operations in which the diver

(a) may be entrapped,

(b) does not have free access to the surface,

(c) may be exposed to a contaminated environment, or

(d) could be adversely affected by hazardous underwater or surface work activities or conditions which could be alleviated if the diver were using surface supplied air.

(2) Divers using scuba must use open circuit apparatus providing a breathing medium by an automatic demand flow system.

(3) Recirculating apparatus may only be used with prior permission of the Board.

(4) Divers using scuba must not dive to depths greater than 40 m (130 ft) unless prior authorization has been received from the Board.

24.38 Equipment

(1) Each diver using scuba must use all of the following equipment appropriate to the diving conditions and as specified by the diving supervisor:

(a) a scuba unit complete with a quick release harness and a submersible pressure gauge;

(b) a face mask and swimming fins;

(c) a suitable knife and a depth gauge;

(d) an exposure suit and an inflatable buoyancy device;

(e) a weight belt with quick release buckle;

(f) an underwater watch with elapsed time indicator;

(g) an underwater light when night diving;

(h) other equipment as may be required by the Board.

(2) If a risk of entrapment is present, one complete spare set of underwater breathing apparatus with fully charged cylinders must be assembled at the dive site.

(3) When diving in open water, each free swimming diver must carry an audible or visual locating device such as a whistle, flare, or strobe light.

24.39 Testing cylinders

(1) Each scuba cylinder must be hydrostatically tested at least once every 5 years and visually inspected internally at least once a year.

(2) The hydrostatic test date must be affixed to the cylinder and entered into the maintenance log.

(3) The visual inspection date must be entered in the maintenance log.

24.40 Minimum crew

(1) For each diving operation where planned dives do not exceed 40 m (130 ft) or the no-decompression limits, and where there are no hazards present, a minimum dive crew of 3 workers must be present, one of whom must be a diver's supervisor/tender, one a diver and one a standby diver on the surface unless the standby is permitted by section 24.33(3) to serve as a standby in the water.

(2) If the planned dive exceeds 40 m (130 ft), or the no- decompression limits, or there are hazards present, the dive crew must consist of a minimum of 4 workers: a diving supervisor, a diver's tender and 2 divers, one of whom must be a standby diver on the surface.

24.41 Diver's tender

(1) Each surface supplied diver must be tended, hands on, by a separate diver's tender.

(2) If audio communications are used, one tender may monitor 2 divers.

24.42 Diver's equipment

(1) Diver's boots must be patterned, constructed, and fastened to prevent their loss underwater.

(2) Every diver must wear a separate weight belt outside the diving dress, which

(a) if released must result in the diver achieving positive buoyancy, and

(b) must be inspected daily before commencing a diving operation.

(3) Non-return valves must be

(a) fitted to all surface supplied diving helmets, masks, and hookah diving systems, and

(b) checked before commencing a diving operation.

(4) Each diver must wear a bailout system and carry a suitable knife.

(5) When divers use a stage to carry out decompression diving, the stage must have an independent source of emergency breathing gases sufficient to complete any needed decompression of the diver.

24.43 Compressors

Compressors used to supply air to divers must be

(a) capable of maintaining a supply of air equal to at least double the volume of air required,

(b) capable of developing pressure at least 25% greater than the anticipated pressure requirement, and

(c) automatic in operation.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.44 Volume tanks

Air from a low pressure compressor must be discharged into a volume tank of at least 100 litres (22 imp gal) capacity, fitted with

(a) a no-return valve on the inlet side,

(b) a pressure gauge,

(c) an over pressure relief valve, and

(d) a drain cock capable of draining any fluids.

24.45 Breathing air filters

Air supplied from a volume tank must be passed through a filtration system consisting of at least a water trap, a particulate filter and a chemical vapour absorbent.

24.46 Manifolds and fittings

(1) The manifold system must be provided with

(a) a primary and a reserve air supply capable of being isolated from each other, and

(b) piping of a diameter which ensures an adequate flow of gas to the diver(s).

(2) The reserve supply must provide a sufficient quantity of breathing mixture to enable the diver to return to the surface and undergo all "in water" decompression.

(3) If there is no voice communication with the diver, each surface supplied air system must be equipped with an audible low pressure alarm situated so that it can be heard by the diving supervisor and the diver's tender.

24.47 Breathing gas lines

(1) All stationary breathing air or mixed gas lines must be guarded against damage or interference.

(2) Each diver's air or mixed gas line must be fitted with a valve that is

(a) readily accessible,

(b) guarded against interference,

(c) clearly marked to identify the diver it services, and

(d) under the care and control of the diver's supervisor or diver's tender.

(3) Each diver's air or mixed gas line must be fitted with a pressure gauge to indicate the pressure being delivered to the diver, and the gauge must be located downstream of the diver's supply valve so that the dial and figures are clearly visible to the diver's tender.

(4) All hoses, pipes, couplings and other fittings used in any air or mixed gas line for divers must be designed and suitable for their intended use.

(5) Hoses must be protected from kinking and be capable of sustaining the required flow rates and pressures for the system used.

(6) Every umbilical must incorporate a lifeline to prevent stress on the hose or diver's helmet, and the umbilical and lifeline must be attached to a suitable diver's harness.

(7) The standby diver's umbilical and lifeline must be of sufficient length to reach the operating diver.

24.48 General requirements

Divers who take part in deep diving operations must

(a) be tethered to the work base by a breathing gas umbilical,

(b) have effective two-way voice communications with the surface, and

(c) be supplied with a mixed gas breathing medium.

24.49 Hyperbaric chamber

An approved double lock hyperbaric chamber must be on the dive site and in operable condition.

24.50 Transportation to the underwater worksite

(1) If the depth of the dive is less than 73 m (240 ft) and the total "in water" ascent time is less than 1 hour, the diver must be transported to and from the underwater worksite by a stage, bell, or submersible compression chamber (SCC).

(2) If the depth or time exceeds the conditions in subsection (1) an SCC must be used to transport the diver.

(3) The standby diver must be stationed at the surface, or if an SCC is used the standby diver must be in the SCC.

(4) The diving supervisor must have a means of

(a) monitoring the depth of the diver and the SCC,

(b) controlling the pressures of the breathing mixtures supplied to each diver and the standby diver, and

(c) continuously analyzing the breathing mixture.

24.51 Rest periods

(1) If non-saturation diving techniques are used in a deep diving operation, the diving supervisor must ensure there is a rest period of at least 24 continuous hours following the completion of decompression.

(2) If saturation diving techniques are used, the diving supervisor must ensure that

(a) if the dive is to a depth of 150 m (500 ft) or less, a diver does not exceed 4 hours in the water and 4 hours as an attendant in the SCC,

(b) if the dive is deeper than 150 m (500 ft), a diver does not exceed 3 hours in the water and 3 hours as an attendant in the SCC, and

(c) in any 24 hour period, there is a rest period of at least 12 continuous hours after the applicable time limits in paragraphs (a) and (b) have been reached.

(3) A diver must not commence another dive within 7 days of completion of decompression following a saturation dive unless at the discretion of a physician knowledgeable and competent in diving medicine.

24.52 Standards

Submersible Compression Chambers and Lock-Out Submersibles must meet the requirements of *CSA Standard Z275.1-93, Hyperbaric Facilities*.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

24.53 General equipment requirements

Each SCC and LOS must be equipped to permit the transfer of persons under pressure into and from a surface compression chamber, and must have

(a) doors and hatches that act as pressure seals, and that may be opened from either side,

(b) valves, gauges, and other fittings necessary to control the internal pressure and to clearly indicate the internal and external pressures,

(c) spring loaded pressurization and main exhaust valves which will close when not held in the open position,

(d) a reserve breathing mixture for persons occupying or working from the SCC or LOS, which must be protected against inadvertent operation and be capable of being brought on line from within the SCC or LOS without outside assistance,

(e) a two-way voice communication system capable of continuously recording and saving the previous 4 hours of conversation, with emergency backup capabilities, through which a person in the SCC or LOS can communicate with the diving supervisor,

(f) heating and lighting equipment including emergency backup illumination,

(g) first aid equipment, without towelettes,

(h) a hoisting device to bring an unconscious or injured diver into the chamber,

(i) a standby diver's umbilical bundle which must be 3 m (10 ft) longer than the diver's umbilical bundle,

(j) a strobe light that is activated while the chamber is in the water,

(k) an emergency locating device with a surface receiver operating at 37.5 kHz,

(l) instruments to monitor temperature, oxygen and carbon dioxide levels within the chamber, and for an SCC the instrument readings must be readable on the surface,

(m) primary and emergency carbon dioxide scrubbers,

(n) hull integrity valves mounted on all gas and other penetrations into the submersible compression chamber,

(o) a secondary source of power for the diving systems and equipment that can be rapidly brought on line in the event the primary energy source fails, and

(p) in a diving operation in which an SCC is used, a sufficient quantity of breathing mixture to meet the needs of the occupants of the chamber for at least 24 hours.

[Amended by B.C. Reg. 348/2003, effective March 30, 2004.]

24.54 Design

Each SCC and LOS must be of a design that

(a) allows divers to enter and exit without difficulty,

(b) allows at least 2 divers, equipped and dressed for the diving operation, to be seated within, and

(c) in case of emergency, allows a diver within to disconnect or shear the primary lifting cable and the umbilical bundle.

24.55 Lifting gear

(1) Each SCC and LOS must be used in association with lifting gear that

(a) enables the SCC or LOS to be lowered to the depth at which the diving operation is to be carried out, without excessive lateral, vertical, or rotational movement taking place,

(b) is provided with, in addition to the primary lifting cable, a tag rope so designed that in the event of the primary cable breaking during an air water interface transfer, the tag rope will permit the SCC or LOS to descend only to a calm area immediately below the turbulent wave zone, and

(c) is provided with a secondary means of being returned to the surface in the event of failure of the main lifting gear.

(2) If use of the secondary means in subsection (1)(c) involves shedding weights, the controls for shedding weights must be operable from within the SCC or LOS and must incorporate a means to prevent the weights from being shed inadvertently.

24.56 Secondary lifting equipment

(1) An LOS must be provided with

(a) a secondary lifting eye or similar device of at least the same strength as the primary lifting eye, and

(b) a secondary lifting cable that is readily available and of at least the same strength as the primary lifting cable, and is compatible with the secondary lifting eye or similar device.

(2) An SCC must be provided with

(a) a secondary lifting eye or similar device of at least the same strength as the primary lifting eye, and

(b) a secondary lifting cable that is attached and capable of returning the SCC to the surface.

(3) An alternative means must be provided to return the SCC or LOS to the deck.

24.57 Diving system procedures

(1) The diving supervisor must ensure that a lock-out diving operation is not conducted from a submersible unless

(a) the submersible is negatively buoyant on the bottom or positively secured to the work site,

(b) the diving supervisor is on board the submersible and present in the one atmosphere chamber during the lockout operation, and

(c) a standby diver is monitoring the lock-out operation from the submersible's compression chamber and is dressed and equipped to immediately carry out rescue operations in the event of an emergency.

(2) The diving supervisor must ensure that lock-out submersible and atmospheric diving system operations are not conducted unless

(a) a backup unit with sufficient depth capabilities to effect a rescue is available for use in the event of an emergency,

(b) the on-board life-support system of the LOS is capable of sustaining life for a period of time that would enable the backup unit to reach the site of the diving operation and effect rescue, and

(c) a breathing mixture is provided that will meet the needs of the occupants for at least 48 hours.

24.58 Registration

The employer must ensure that an atmospheric diving system meets the requirements for registration with Lloyd's Registry of Shipping, the American Bureau of Shipping, or Det Norske Veritas.

24.59 General equipment requirements

An ADS must have

(a) valves, gauges, and other fittings necessary to control the internal pressure, and to clearly indicate the internal and external pressures,

(b) a reserve breathing mixture for persons occupying the ADS, a mixture which is protected against inadvertent operation and is capable of being brought on line from inside, without outside assistance,

(c) a two-way voice communication system, capable of continuously recording and saving the previous 4 hours of conversation, and with emergency backup capabilities, by which a person inside the atmospheric diving system can communicate with the diving supervisor,

(d) lighting equipment including emergency backup illumination,

(e) first aid equipment,

(f) heating equipment and thermal protection for all occupants,

(g) a strobe light that can be activated while the ADS is in the water,

(h) an emergency locating device with a surface receiver operating at 37.5 kHz,

(i) instruments to enable occupants to monitor the temperature, oxygen and carbon dioxide within the atmospheric diving system,

(j) a primary and an emergency means of scrubbing carbon dioxide,

(k) a device which allows the occupant to disconnect or shear the primary lifting cable and the umbilical bundle in an emergency, and

(l) in addition to the primary lifting cable, a tag rope or secondary lifting method so designed that in the event of the primary cable breaking during an air water interface transfer, the tag rope or secondary method will permit the ADS to descend only to a calm area immediately below the turbulent wave zone.

24.60 Secondary means of surfacing

(1) The employer must ensure that atmospheric diving operations are not conducted unless the atmospheric diving system is provided with a secondary means of returning to the surface in the event the main lifting gear fails.

(2) If use of the secondary means involves shedding weights, the controls for shedding weights must be operable from within and must incorporate a means to prevent the weights from being shed inadvertently.

24.61 Secondary lifting equipment

An ADS must be provided with

(a) a secondary lifting eye or similar device that is of at least the same strength as the primary lifting eye, and

(b) a secondary lifting cable that is readily available and of at least the same strength as the primary lifting cable, and is compatible with the secondary lifting eye or device.

24.62 General procedures

(1) The diving supervisor must ensure that altitude diving operations are conducted in accordance with acceptable altitude diving tables.

(2) Altitude diving procedures must address

(a) acclimatization at the dive site to reduce the diver's nitrogen load caused by the reduced atmospheric pressure at the increased altitude,

(b) the equivalent ocean depth in order to select the appropriate tables at the altitude,

(c) accurate methods of calculating the diver's actual depth of dive,

(d) calculation of the reduction in ascent rate due to the increase in altitude, and

(e) post dive travel considerations.

24.63 Hazardous mechanisms

Before a diver enters the water all hazardous mechanisms must be

(a) secured against inadvertent movement, and

(b) locked out as required by Part 10 (De-energization and Lockout).

24.64 Intakes, pipes and tunnels

(1) If a diver is required to approach or enter the intake of any pipe, tunnel, duct, or similar installation the diver must be provided with the means to distinguish the specific intake from any others in the vicinity.

(2) A diver must not enter the water until flow through the intake is stopped and the intake mechanism is locked out, and the flow must not be restarted until the diver has left the water.

(3) If divers are required to approach a hazardous mechanism, a pressure differential structure, or the intake of any pipe, tunnel, duct or similar installation, the divers must use only surface-tethered diving equipment with effective two-way voice communication with the surface; if required to enter, they must use only surface supplied diving equipment with effective two-way voice communication with the surface.

24.65 Exceptional hazards

Additional dive team members with independent equipment and capable of effecting rescue must be on the dive site whenever diving operations incur exceptional risk of entrapment of a diver or loss of the diver's life support system.

24.66 Contaminated environments

(1) Before diving commences in a contaminated environment, an operational plan must be devised that is available at the dive site and provides for

(a) identification of the contaminants,

(b) special clothing or equipment to be used,

(c) potential adverse health effects to persons and special medical precautionary measures,

(d) identification of the exclusion zone, contamination reduction zone and the support zone, and protective clothing and equipment to be used in them,

(e) measures to be followed by personnel when moving from one zone to another,

(f) special first aid measures associated with exposure to the specific contaminants, and

(g) emergency telephone numbers to secure qualified assistance within adequate response times.

(2) The diving supervisor must ensure that

(a) emergency breathing apparatus is provided for surface support personnel if there is risk of inhaling dangerous contaminants during the diving operations,

(b) suitable apparel and equipment is worn by surface support personnel to prevent exposure to contaminants,

(c) an appropriate means of safely decontaminating personnel is available at the dive site,

(d) the dive site has the means and facilities to safely dispose of contaminated clothing and equipment,

(e) all diving systems and equipment exposed to the contaminant are inspected for deterioration before each dive,

(f) diaphragms of the first and second regulators and associated exhaust valves are inspected for deterioration before each dive, and

(g) contaminated diving systems and equipment are not removed from the dive site unless authorized by the diving supervisor, and are not used in any subsequent diving operation unless found free of all contaminants.

(3) A minimum crew of 4 workers must be present at a diving operation in a contaminated environment, one of whom must be a diver, one a diving supervisor, one a diver's tender, and one a standby diver.

(4) The diving supervisor must ensure that scuba is not used for diving operations in a contaminated environment.

(5) For dives in contaminated environments, the diving supervisor must ensure that divers use surface supply equipment including

(a) a surface supply diving helmet designed and suitable for such work,

(b) a totally enclosed diving suit, made of nonabsorbent material which mates to the helmet with a positive seal and locking device,

(c) a two-way voice communication system, and

(d) protective devices, where practicable, to minimize contaminant exposure to diving equipment.

(6) For dives in contaminated environments, the following zones must be established on site:

(a) a dedicated contamination reduction zone with suitable means to decontaminate personnel;

(b) a dedicated support zone with suitable means to decontaminate or dispose of apparel and equipment;

(c) a dedicated exclusion zone to handle the contaminant, accessible only to authorized and protected personnel.

(7) For dives in contaminated environments,

(a) workers entering the exclusion zone must wear appropriate personal protective equipment,

(b) workers must enter and leave the exclusion zone only through the contamination reduction zone, and

(c) no food, drink, or tobacco may be taken into the exclusion zone or the contamination zone.

24.67 General requirements

Live boating diving operations must be conducted only

(a) during daylight hours,

(b) in appropriate weather, current and sea conditions,

(c) from a vessel with the necessary maneuverability to ensure the diver's safety, and which is under the control of a competent master, and

(d) within the no-decompression limits.

24.68 Procedures

The diving supervisor must ensure that

(a) a procedure or device is in place that will prevent the diver's lifeline or umbilical bundle from becoming entangled in the boat's propulsion system,

(b) the diver's tender is in a position of unobstructed view to the vessel master and the diving supervisor,

(c) the propulsion system is disengaged when the diver enters or leaves the water,

(d) the diver's umbilical or lifeline is monitored, hands on, by a diver's tender,

(e) there is continuous voice communication,

(f) no more than 70% of the diver's umbilical or lifeline is deployed during the diving operation,

(g) the vessel master is competent to perform live boating operations and is under the direct control of the diving supervisor during diving operations, and

(h) all dive crew members are familiar with their duties and responsibilities with respect to the diver's safety, and they may terminate the dive if the diver's safety is jeopardized.

24.69 Application

(1) Sections 8.26 and 8.28 do not apply to a crewmember of a fishing vessel.

(2) Section 8.29 does not apply to an owner or master of a fishing vessel.

(3) Sections 8.27 and 8.30 do not apply to a personal flotation device (PFD) or lifejacket used on a fishing vessel.

[Enacted by B.C. Reg. 14/2019, effective June 3, 2019.]

24.70 Compliance with standards

All fishing vessels must

(a) be maintained in seaworthy condition, and

(b) be built in accordance with the applicable regulations under the *Canada Shipping Act, 2001*.

[Amended by B.C. Reg. 222/2021, effective December 1, 2021.]

24.71 Owner and master responsibilities

(1) An owner of a fishing vessel must ensure that all machinery and equipment on board a fishing vessel is capable of safely performing the functions for which it is used.

(2) The owner must ensure that major modifications to a fishing vessel do not adversely affect the stability of the vessel.

(3) The master of a fishing vessel must ensure that

(a) machinery and equipment is properly maintained and functions safely during the voyage, and

(b) any replacement equipment meets the requirements of this Part.

24.72 Documentation

The owner of every fishing vessel must provide documentation on board, readily accessible to crewmembers, which describes

(a) engine room instructions,

(b) vessel characteristics, including stability,

(c) the location and use of firefighting equipment, and

(d) the location and use of emergency equipment, including radio equipment.

24.73 Instruction

(1) Before the start of each fishing season, the master must ensure that each crewmember is instructed in the operational characteristics of the fishing vessel including

(a) the location and use of safety equipment, engine room components and controls,

(b) deck equipment and rigging,

(c) navigation equipment and electronic aids,

(d) fishing equipment and its use, including safe work practices for each fishery the vessel will be engaged in,

(e) procedures for anchoring the vessel,

(f) the location and use of emergency equipment, including firefighting and radio equipment, and

(g) escape routes in the event of fire.

(2) The master must ensure as far as is reasonably practicable, that the instruction required by subsection (1) results in each crewmember being able to apply the information as needed to protect the crewmember's health and safety.

(3) New crewmembers joining the vessel must be instructed in accordance with the requirements of this section at the time that they join the vessel.

24.74 Emergency procedures

(1) The master must establish procedures and assign responsibilities to each crewmember to cover all emergencies including

(a) crewmember overboard,

(b) fire on board,

(c) flooding of the vessel,

(d) abandoning ship, and

(e) calling for help.

(2) The master must ensure that drills are conducted at the start of each fishing season, when there is a change of crew, and at periodic intervals to ensure that crewmembers are familiar with emergency procedures.

24.75 Crewmember responsibility

Crewmembers must take all reasonable precautions necessary to ensure the health and safety of themselves and other persons on board the fishing vessel.

24.76 Vessel preparation

Before leaving on a voyage the master must ensure that the fishing vessel is capable of safely making the passage, due consideration being given to

(a) the seaworthiness of the vessel,

(b) the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies,

(c) ballasting, and

(d) present and forecast weather conditions.

24.77 Reporting injuries

(1) Crewmembers must report all injuries to the master, without delay.

(2) The master must report to the owner of the fishing vessel all injuries that required medical aid and record all injuries in the vessel log book.

24.78 Unsafe conditions

(1) A crewmember who observes an unsafe or harmful condition or situation must immediately report it to the master.

(2) The master must ensure that action is taken, without delay, to correct an unsafe or harmful condition or situation.

24.79 First aid

Repealed. [B.C. Reg. 348/2003, effective March 30, 2004.]

24.80 Slipping and tripping hazards

(1) All work areas must be kept

(a) clear of unnecessary obstructions, and

(b) free of slipping and tripping hazards.

(2) Decks must have non-skid surfaces except in those locations where a smooth deck is required for handling fish.

(3) Tools and equipment must be securely stowed when not in use.

24.81 Guarding of equipment

The owner of a fishing vessel must ensure that moving parts of power operated equipment are, where practicable, fitted with effective guards if such parts constitute a danger to crewmembers.

24.82 Inspection of rigging

The master must ensure that all rigging is maintained and inspected regularly to ensure that it is able to safely carry out the work for which it was

designed.

24.83 Access and egress

Every portable ladder or gangway between a fishing vessel and shore, between vessels, or when used on board a vessel must be designed and rigged to provide safe access and egress.

24.84 Protection from falling

(1) Crewmembers must be protected from falling overboard by means of grabrails, siderails, handrails, guardrails or personal fall protection equipment.

(2) Crewmembers working aloft or on deck during adverse weather conditions must tie off to a lifeline to prevent falling.

24.85 Deck openings

(1) Deck openings and hatches on a fishing vessel must be

(a) equipped with an effective means of securing them, and

(b) closed and secured when it is not essential to the fishing operation that they be open.

(2) When deck openings and hatches are required to be open for ventilation or other purposes, they must be marked and guarded.

24.86 De-energization

(1) The maintenance and repair of machinery or equipment on board a fishing vessel must only be carried out when the power source has been de-energized and effectively secured to prevent inadvertent startup.

(2) If it is essential that equipment remain operational during the maintenance process, the master must establish a procedure to prevent injury from contact with moving or energized parts.

(3) The main engine must be shut off whenever a diver is conducting work underwater in proximity to the vessel.

24.87 Equipment control devices

(1) Winches, drums, capstans, and similar equipment on board a fishing vessel must have at least one master on/off control that is readily accessible on deck.

(2) Drum pedals and other types of hold-to-run controls must not be bypassed or otherwise rendered ineffective.

24.88 Braking devices

Winches and drums capable of freewheeling must be fitted with an effective braking device.

24.89 Illumination

All work areas on board a fishing vessel must be sufficiently illuminated to enable work to be done safely.

24.90 Ventilation

All crew spaces on fishing vessels must be provided with an adequate supply of fresh air either by passive or mechanical means.

24.91 Propane installations

Propane, liquefied petroleum gas (LPG) and compressed natural gas (CNG) installations, used for appliances on fishing vessels must be in conformity with the *NFPA Standard 302-1989, Fire Protection Standard for Pleasure and Commercial Motor Craft*.

24.92 Galley requirements

(1) Galley stoves on fishing vessels must be fitted with rails or other means to restrain the movement of cooking utensils, and to prevent inadvertent contact by crewmembers.

(2) Stove fuel supply tanks and lines must

(a) be fitted with a shutoff valve at the tank, and

(b) not be located directly above the stove.

(3) Galley stoves must

(a) be secured to prevent movement, and

(b) have sufficient clearance to permit the effective cleanup of oil and grease.

24.93 Requirements for sensors and alarms

(1) An owner of a fishing vessel must ensure that a heat sensor, connected to an alarm system, is installed

(a) above the galley stove or near the stove pipe, and

(b) in proximity to the engine exhaust.

(2) The owner must ensure that a water level sensor, connected to an alarm system, is installed

(a) in the machinery space bilges, and

(b) in the shaft log or lazarette.

(3) The owner must ensure that main engines are fitted with low oil pressure and high temperature sensors connected to an alarm system.

(4) The owner must ensure that a sensor and alarm system is installed if the Board considers this necessary to detect leaks of potentially explosive fuel used in engines or appliances.

(5) The owner must ensure that an audible marine grade carbon monoxide sensor, connected to an alarm system where practicable, is installed in crew quarters.

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

24.94 Confined spaces

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

24.95 Controlled products

Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

24.96 Protection against cold

Crewmembers working in freezers must wear clothing, including headgear, footwear and gloves, that provides adequate protection against cold.

24.96.1 When crewmember must wear a personal flotation device (PFD) or lifejacket

A crewmember must wear a personal flotation device (PFD) or lifejacket on a fishing vessel if the crewmember is

(a) on board the fishing vessel, in the case of a fishing vessel that has no deck or deck structure, or

(b) on the deck or in the cockpit of the fishing vessel, in the case of a fishing vessel that has a deck or deck structure.

[Enacted by B.C. Reg. 14/2019, effective June 3, 2019.]

24.96.2 Crewmember working alone

If a crewmember is working alone on a fishing vessel, the crewmember must wear a lifejacket that

(a) has a minimum buoyancy of 93 N (21 lbs), and

(b) is inherently buoyant or automatically inflatable.

[Enacted by B.C. Reg. 14/2019, effective June 3, 2019.]

24.96.3 Record of inspection and maintenance

If crewmembers use inflatable personal flotation devices (PFDs) or automatically inflatable lifejackets on a fishing vessel, the owner or the master must keep a record of all inspections made and maintenance performed on those PFDs or automatically inflatable lifejackets.

[Enacted by B.C. Reg. 14/2019, effective June 3, 2019.]

24.97 Crewmember overboard

(1) Every fishing vessel must carry, for each crewmember, one immersion suit meeting standards acceptable to the Board.

(2) The master of a vessel must ensure that there is suitable equipment on board and that procedures have been developed which will enable the prompt recovery of a crewmember overboard.

24.98 Davits

The owner of a fishing vessel must ensure that all moveable davits are fitted with an effective locking device.

24.99 Communication

The master must ensure that effective procedures are developed to communicate between the bridge and all work areas on the vessel.

24.100 Ozone generators

The owner of a fishing vessel must ensure that ozone generating equipment is installed and operated in accordance with standards acceptable to the Board.

24.101 Loading and offloading

The master of a fishing vessel carrying fish or cargo must establish safe procedures for the loading and offloading of fish and cargo.

24.102 Work areas and operations

All work areas must be arranged and operations organized to minimize the potential for injury to crewmembers, including strains and sprains.

24.103 Proper lifting

The master must ensure that crewmembers are instructed in and use proper lifting techniques.

Salmon

24.104 Drums

The owner of a gillnet vessel must ensure that drums are fitted with

(a) an effective ratchet device for picking up the net under heavy strain,

(b) an effective brake to maintain control when setting out the net, and

(c) a hold-to-run control.

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

24.105 Pin rollers

(1) The owner must ensure that pin rollers are of a design to prevent their inadvertent lifting.

(2) The master must ensure that pin rollers are maintained to prevent their inadvertent lifting.

Herring

24.106 Work areas and safeguarding

(1) Work areas on herring skiffs and punts must be arranged to prevent contact with moving equipment such as beaters and live rollers.

(2) The owner of a herring gillnet vessel must ensure that drums are fitted with

(a) an effective ratchet device for picking up the net under heavy strain and an effective brake to maintain control when setting out the net, and

(b) a hold-to-run control or other equally effective safeguard to stop the drums if a worker becomes entangled in the net or lines being wound in by the drum.

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

24.107 Fouled propellers

The master of a herring skiff or punt must develop safe work procedures to direct crewmembers in how to clear fouled propellers.

24.108 Hauling net anchors

The owner must ensure that, when required by fishing conditions, herring skiffs and punts are fitted with mechanical means for hauling net anchors.

24.109 Brailers

Crewmembers must keep clear of brailers when unloading herring.

24.110 Towing skiffs

The master of a fishing vessel that will tow a skiff or punt must develop safe procedures for towing in all weather conditions including

(a) a means of self bailing,

(b) the use of tow line shock absorbers, and

(c) the use of drogue devices to prevent sheering and overtaking.

24.111 Gloves

Crewmembers must wear hand protection acceptable to the Board when handlining.

24.112 Setting procedures

The master must establish safe procedures for setting gear to prevent crewmembers being caught by hooks and other gear.

24.113 Knives

Each setting and hauling station must be equipped with a knife capable of cutting the gear.

24.114 Guarding

Drums and automated systems using longlines with hooks attached must be guarded or shielded to prevent inadvertent contact with hooks.

24.115 Hoisting device

If there is a potential for injury to crewmembers, a hoisting device must be provided and used to lift large fish.

General Requirements

24.116 Hairpins and ringstrippers

(1) Seiners built after January 1, 1995 must be fitted with ringstrippers.

(2) The owner of a seiner must ensure that hairpins or ringstrippers on the vessel are designed and constructed so that crewmembers will not be endangered by their use.

(3) The master of a seiner must, if applicable, develop safe hairpin or ringstripper operating procedures which include

(a) consideration of sea and tide conditions,

(b) crew coordination,

(c) communication,

(d) spooling gear,

(e) drumming, and

(f) hoisting and securing.

24.117 Spooling gear

(1) The owner of a seiner must ensure that pursing winches and leads are positioned to permit proper spooling.

(2) Crewmembers must keep clear of the stern spooling gear while it is in operation.

24.118 Lifting the bag

(1) Whenever drawing the bag over the stern presents a risk of equipment failure or vessel instability, alternate procedures such as splitting the lift or brailing must be developed and used.

(2) Crewmembers must stay clear of the bag when it is brought over the stern roller.

24.119 Drum operation

Crewmembers operating the drum must not leave the controls while the drum is turning.

24.120 Brailing

The master of a seiner carrying a brailer must ensure that crewmembers are instructed in safe brailing procedures.

24.121 Purse rings

Purse rings on all seine nets must be secured to the middle of the ring strap to prevent rings from falling when fleeting the net through the power block.

24.122 Pumps

(1) The owner of a seiner carrying pumping gear must ensure that it is capable of pumping fish from the bottom of the bunt while on a set.

(2) If 2 or more fishing vessels are working in a team, the pumping gear may be shared between the vessels.

24.123 Drying up

The master of a seiner must establish a safe drying up procedure which includes

(a) communication on deck and between vessels,

(b) coordination of activities,

(c) securing the net,

(d) hoisting fleets, and

(e) the means of jettisoning the set should the vessel become endangered.

24.124 Power blocks

(1) Power block haul lines must be minimum 25 mm (1 in) diameter double braid nylon or equivalent.

(2) The master must ensure that power block haul lines are inspected frequently and maintained in safe condition.

(3) Haul lines must be shackled to the power block.

(4) A power block must be equipped with an effective safety line when suspended above the deck.

Seine Skiffs

24.125 Communication

The master of a seiner must ensure there is an effective means of communication between the vessel and the skiff during towing operations.

24.126 Skiff design

(1) Decks and floors of skiffs must be non-skid.

(2) Rails and sides of skiffs must be maintained free of protrusions that could snag the net.

24.127 Equipment stowage

Lines and other necessary equipment in skiffs must be securely stowed to prevent slipping and tripping.

24.128 Personal flotation devices (PFDs)

Repealed. [B.C. Reg. 14/2019, effective June 3, 2019.]

24.129 Engine exhaust

The owner must ensure that the exhaust system for an engine in a powered skiff

(a) directs the exhaust away from crewmembers, and

(b) is shielded to prevent burns.

24.130 Capsize protection

(1) Towposts in skiffs must be designed and installed to minimize the potential for capsizing.

(2) Power skiffs must be operated in a manner that eliminates the danger of capsizing from backlash in the net.

Beachline Operations

24.131 Instruction

(1) The master of a salmon seiner must ensure that only trained and adequately supervised crewmembers are permitted to tie up to the beach during fishing operations.

(2) The training required in subsection (1) includes instruction in

(a) proper knots,

(b) assessing the tie-up,

(c) beachline straps,

(d) communication,

(e) tying and untying procedures, and

(f) cutting the strap.

24.132 Tie-up sites

Beach tie-up sites must be selected with due regard for the health and safety of crewmembers, consideration being given to terrain, wind and sea conditions.

24.133 Personal protective equipment

Crewmembers engaged in beach tie-ups must

(a) wear appropriate gloves and footwear meeting the requirements of the Board, and

(b) carry a knife capable of cutting the beachline or strap.

24.134 Night operations

The master of a salmon seiner must not conduct beach operations during darkness unless

(a) crewmembers are properly trained in night-time procedures,

(b) crewmembers in the skiff wear high visibility apparel,

(c) the vessel has the capability of adequately illuminating the work area, and

(d) an effective means of communication is established between the skiff and the seiner.

24.135 Master's responsibility

The master must ensure that the stability of the fishing vessel is not compromised by

(a) the number of traps loaded on the vessel, and

(b) the manner in which the traps are loaded.

24.136 Securing traps

Traps must be secured to prevent inadvertent swinging or other movement during setting and hauling.

24.137 Lifelines

Crewmembers working on the stern setting black cod traps must be tied off with a safety belt or harness, and lifeline, both meeting standards acceptable to the Board.

24.138 Safe work procedures

(1) The master must establish safe work procedures for shooting and hauling trawls.

(2) When shooting the trawl, crewmembers must stay clear of the net once the cod end is overboard.

(3) When hooking up and unhooking trawl doors on the davits, crewmembers must stay clear of pinch points.

(4) The master must establish a safe fleeting procedure.

24.139 Securing areas and equipment

(1) Open stern ramps must be roped off or otherwise guarded except when the area must be open for trawling operations.

(2) Beams must be secured to prevent inadvertent movement when attaching or detaching plumb staffs.

(3) Trawl doors and otter boards must be secured to davits when not in use.

(4) Shrimp and fish boxes must be secured to prevent inadvertent movement.

24.140 Splitting straps

All trawl cod ends must be fitted with splitting straps.

24.141 Trolling poles

Trolling poles and stabilizer poles must be fitted with safety straps or other devices to limit their downward travel and to lock them in the down position.

24.142 Gurdy brakes

Gurdy braking devices must be maintained in good working order.

24.143 Cockpit covers

Cockpits must be equipped with covers and an adequate means to secure them in adverse weather.