Seafood Harvesting DIVING

SAFETY BEST PRACTICES

Version 1.1 – November 2024

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In Memoriam:

Andrew 'Connor' Brown was a 26-year-old fun, adventurous, loyal & loving son, brother, grandson, uncle, cousin and friend.

Connor was a red urchin diver with the vessel Diver City who drowned on October 16, 2018, one meter below the surface of the Hecate Strait, approximately 200 kilometres south of Prince Rupert, British Columbia.

Connor was a fully qualified diver and the only person on board the Diver City qualified to do the job assigned.

1.0 ORGANIZATIONAL COMMITMENT

1.1 Health and Safety Policy

Safety is the industries primary and over riding mandate.

Working underwater utilizing life support equipment comes with risks that are unique to the diving industry. It is mandatory that the vessel master and all contractors not only understand those risks, but also have the knowledge and ability to control those risks. The vessel master is dedicated to ensuring that all work performed, both above and below water, is done in such a way as to protect all involved from harm.

The vessel master will ensure that all safe dive procedures and OHSR are kept up to date and by following these established safe dive procedures, Occupational Health and Safety Regulations, through risk assessment and due diligence, all operations will be carried out in the safest possible manner to minimize risks to all dive and support personnel.

Vessel Master	Date

1.2 Roles and Responsibilities

To maintain a safe and healthy worksite, the owner, the vessel master, and the crew must accept and understand their individual responsibilities. The following outlines general responsibilities associated with each level of our organization.

1.2.1 Vessel Owners

Vessel Owners are responsible for ensuring all required equipment is in place until such time as the vessel is turned over to the Master, this includes:

- Ensure the vessel is seaworthy and that all equipment on board meets the requirements of Transport Canada (TC) and WorkSafeBC (WSBC) Regulation.
- Know and follow the health and safety requirements stated in the Workers Compensation Act (WCA) and Occupational Health and Safety (OHS) Regulations.
- All required first aid equipment is on board according to Schedule 3-A of the OHS Regulations.
- 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.

1.2.2 Master (Skipper)

The ultimate responsibility for all non-diving operations rests with the Master once they have taken control of the vessel. The Master will ensure that all levels of the operation contribute to safety by advising, inspecting, investigating, and following up.

Specific Duties:

- Provide a safe and healthy workplace/vessel, including ensuring that all rescue equipment is on board.
- Conduct daily informal inspections of the jobsite, tools, equipment, and facilities.
- Direct and instruct new crew in the safe performance of their duties.
- Ensure the vessel is capable of safe passage prior to leaving port, including safe stowage of all material/equipment and vessel safely ballasted.
- Ensure that all dive supervisors and crew are adequately trained in the safe performance of their duties and operations specific to the vessel.
- Cancel operations when the safety of the vessel and/or personnel would be at risk.
- Investigate all accidents and near misses.
- Ensure that the vessel and its equipment are regularly inspected and that all unsafe conditions are fixed.
- Provide first-aid equipment as required by the WorkSafeBC OHS Regulation.
- Ensure the proper personal protective equipment is available, such as PFD’s and lifejackets, and that it is being properly used and maintained.

- Ensure emergency procedures are established and duties are assigned to trained crew members for: crewmember overboard, vessel fire, vessel flooding, abandoning ship, and calling for help, and that drills for these procedures are held at the start of every trip or when a new crew member joins the boat.

1.2.3 Dive Supervisor

Dive Supervisors must ensure that safety is given the same importance as productivity. They are to analyze work activities and practices to ensure all work under their lead is done in compliance with the Workers Compensation Act, Occupational Health and Safety Regulations and these safe work procedures.

Specific Duties:

- Not allow a diver to dive if in their opinion the diver is incapable of functioning safely underwater. Some things that may impair a diver are physical/emotional fatigue or being under the influence of drugs and/or alcohol.
- Ensure all divers have the required training in CPR, oxygen (O_2) therapy, and diving accident management, from a person or agency approved by WorkSafeBC.
- Maintain a supervisor's log with the following information for each dive:
  (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).
- Ensure that each diver's medical certification is available at the dive site (required every year for divers 40 and over, every 2 years by divers under 40).
- Ensure that divers are competent to the requirements of CSA Standard Z275.4-97 and all diving equipment that will be used.
  - If a diver is new to the vessel they must be trained in the vessel's specific diving procedures, including recall signals, signals used to communicate with the tender, and the vessel's specific seafood harvesting procedures. The dive supervisor must quiz the diver to ensure they are confident with the level of training before the diver is allowed to enter the water – this should include specifics like how to dive in thick kelp, how to manage a heavy/full product bag, etc.. Record the completion of this quiz in the supervisor's logbook.
  - If a diver has no previous experience in seafood harvesting, then in-water mentoring must be provided by an experienced diver for a minimum of 2 full days or until the trainee is competent and comfortable with the work that is expected of them. Record all training in the dive supervisor's logbook.

- Ensure that compressed air used for diving meets CSA Standard Z275.2-92 and the dive compressor used has a valid annual air test.
- Conduct daily inspections of the boat and all diving equipment.
- Check diving conditions and complete a thorough risk assessment and dive plan prior to commencing the diving operations. Discuss any hazards (eg. kelp, surge/waves, traffic), and document the meetings on the daily **DIVE HAZARD ASSESSMENT** form.
- Brief the team on the job to be done, local hazards, recall signals, depth and time limits, and emergency procedures.
- Ensure no planned decompression diving, or diving in contaminated waters or near water intakes/pipes.
- Cancel diving operations when the safety of the vessel and/or personnel would be at risk.
- Follow up on all diving-related health and safety recommendations.
- Promptly record all diving-related injuries and promptly investigate accidents, incidents or near misses.

The Dive Supervisor will ensure that prior to a dive taking place, the following equipment will be available at the dive site:

- Current locations and contact information for emergency hyperbaric chambers and nearest hospitals.
- Equipment to provide voice communications with emergency services personnel.
- a first aid kit and an oxygen (O_2) therapy unit with sufficient capacity to reach emergency medical services.
- Complete set of acceptable dive tables and a copy of the WorkSafeBC Part 24 Regulations.
- Safe means of entry/exit from water, including means of rescuing an incapacitated diver.

1.2.4 Crew and Divers

All crew is to take an active part in this OHS Program. It is critical that all crew are familiar with the contents of this OHS Program including that they:

Specific Duties:

- Ensure they are fit, competent and comfortable for the planned dive operation.
- Ensure they keep their dive logs up to date and signed-off by a diving supervisor as required by regulation. The dive logs 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).

- Use or wear personal protective equipment as required by the safe work procedures and WorkSafeBC requirements.
- Ensure that their ability to work without risk to their health or safety, or to the health or safety of any other person, is not impaired by alcohol, drugs, or other causes.
- Report to the dive supervisor any situation where they feel another crew member is putting themselves at risk of injury or not following safe work procedures.
- Any diver or crew member may terminate a dive if a diver's safety is jeopardized.
    - If a crewmember on the surface feels there is a safety concern, they should immediately raise their concern with the dive supervisor. The dive supervisor may terminate the dive by recalling the diver using the established recall signal (eg. banging on the hull).
    - If a diver in the water feels conditions are unsafe, they should immediately surface (with their buddy if diving with one). They should discuss their concerns with the dive supervisor, who is responsible for making the final call on all diving operations. Note: all crew members have the right to refuse unsafe work (see section 2.1).
- Report any missing or broken PPE, dive equipment or device, or the existence of any other hazard, that they feel is likely to endanger themselves or any other person.
- Correct unsafe acts, practices, and conditions as they come upon them, then immediately report the event to a supervisor.
- Reporting all injuries (even the ones that appear to be insignificant), unsafe acts and near misses to the diving supervisor immediately.

1.2.5 Standby Diver

A Standby Diver, with all the qualifications and training required for the current dive site, must be on site and equipped with the ability to enter the water within 1 (one) minute if needed. When the dive will not exceed 18m (60 ft) and there are no appreciable hazards (e.g., entanglement, weather, current, poor visibility etc.) 2 divers in the water may act as each other's standby as long as they are trained to effectively rescue a diver in trouble, they are free swimming, they maintain constant visual contact with each other, and do not exceed the no-decompression limit. A standby diver on the surface may perform other duties provided such duties do not compromise the standby diver's ability to promptly render emergency assistance to the diver(s).

1.2.6 Dive Boat Operator

Prior to operating the dive boat, the vessel owner/master must ensure all vessel operators:

- carry at minimum a SVOP (*Small Vessel Operator Proficiency*) training certificate.
- have been instructed on the location and use of all vessel safety equipment (see section 4.1.5), engine room components and controls, radio(s), and firefighting equipment and escape routes.
- have been instructed on the use of all navigational equipment, deck equipment, rigging, and dive systems (compressor, intake, etc.)
- know the procedures for anchoring the vessel.

The vessel owner/master must log that the requirements above have been met.

When operating the dive vessel, the vessel operator must:

- Ensure that fuel supplies are adequate for the work planned.
- Check that all safety, radio, navigation, deck, and other required equipment is operational.
- Move the boat in order to render assistance to divers as required, in a safe manner.
- Post lookouts, hoist signals, and warn approaching vessels when necessary.
- Report all hazards, incidents, and injuries to the Dive Supervisor.

2.0 GENERAL SAFETY RULES

The following rules are designed to prevent accidents and injuries in the workplace. Failure to follow the rules will result in corrective action being taken, up to and including termination. Dive Supervisors will issue additional rules and instructions as the need arises. At the time of orientation, these rules need to be reviewed and signed off by new employees.

1. **Decompression diving** will not be planned or intentionally carried out in the Seafood Harvesting Industry.
2. All employees must wear **appropriate PPE**, as determined by their specific task(s).
3. No crew Is to engage in any **improper activity** or behavior that may cause or constitute a danger to themselves or others. This includes fighting, theft, vandalism, etc.
4. No employee is to **damage, disable or interfere** with safety, firefighting or first aid equipment.
5. The vessel master will not permit the safety of its crew, the public or the environment, to be compromised by the use or distribution of **alcohol or controlled and/or prohibited substances** at the workplace.
6. **Crew shall report all accidents and injuries as soon as practicable**, no matter how slight, to the vessel master (or dive supervisor in the case of diving-related incidents or injuries).
7. All crew shall attend Toolbox Talks and **safety meetings** as required.

2.1 Refusal of Unsafe Work

WorkSafeBC provides all workers with 3 basic rights. ***The Right to Know***, ***The Right to Participate*** and ***The Right to Refuse Unsafe Work***. The duty to refuse unsafe work overrides any rights contained in a contract or collective agreement.

General

1. No crew member will carry out or cause to be carried out any work activity if they have reasonable cause to believe it would create an undue hazard to the health and safety of the crew member or anyone else on the vessel.
2. An employee who is unable to carry out a work activity as a result of (1) will immediately:
   a. Rectify the suspected hazard if within their capabilities/training; or
   b. Report the suspected hazard to their site supervisor.
3. The site supervisor receiving a report of a suspected hazard will immediately investigate the matter and if in their opinion the report is:
   a. Not valid, will inform the crew member who made the report; or
   b. Valid, will fully address the issue in accordance with established procedures.

Non-Resolution

1. If the matter is not resolved and the crew member continues to refuse the work activity, the supervisor must investigate the matter in the presence of the crew who made the report ***and*** a worker representative from the Joint Occupational Health and Safety Committee.
2. If the investigation described above does not resolve the matter and the crew member continues to refuse the work activity, a WorkSafeBC officer shall be notified.

Discriminatory Action

Any crew member who refuses work in accordance with this procedure will not be subject to any form of discriminatory action.

Process of Right to Refuse Unsafe Work

1. Worker refuses to do unsafe work (requires reasonable cause).
2. Worker reports problem to employer or supervisor.
3. Supervisor or employer investigates and either corrects problem or advises worker that the report is not valid.
4. If no resolution, the supervisor or employer must investigate again, in presence of worker, a worker selected by the Workers, or a worker selected by the complainant.
5. If no resolution the employer and worker will notify WorkSafeBC. An officer will investigate and may issue necessary orders.

2.2 Drug and Alcohol Policy

The vessel master will not permit the safety of its crew, the public or the environment to be compromised by the use of alcohol or controlled and/or prohibited substances onboard. See the Drug and Alcohol Policy for more information.

3.0 KEY PROGRAM ELEMENTS

3.1 Bullying and Harassment

Bullying and harassment is not acceptable or tolerated. All crew will be treated in a fair and respectful manner.

Bullying and Harassment Definition:

1. Includes any inappropriate conduct or comment by a person towards a worker that the person knew or reasonably ought to have known would cause that worker to be humiliated or intimidated, but
2. Excludes any reasonable action taken by an employer or supervisor relating to the management and direction of workers or the place of employment.

Workers must not engage in the bullying and harassment of other workers. If bullying and harassment does occur, workers are required to report the incident with as much information as possible. The incident will then be investigated, either by an internal investigator or an external one, and report produced.

3.1.1 Investigations will:

- Be undertaken promptly, diligently and be as thorough as necessary.
- Be fair and impartial, providing both the complainant and respondent equal treatment in evaluating the allegations.
- Be sensitive to the interests of all parties involved and maintain confidentiality.
- Be focused on finding facts and evidence, including interviews of the complainant, respondent, and any witnesses.
- Incorporate, where appropriate, any need or request from the complainant or respondent for assistance during the investigation process.
- Include interviews with the alleged target, the alleged bully, and any witnesses. If the alleged target and the alleged bully agree on what happened, then [The Company] will not investigate any further, and will determine what corrective action to take, if necessary.
- Follow up with appropriate corrective actions taken within a reasonable time frame.

Workers are expected to cooperate with investigators and provide any details of incidents they have experienced or witnessed. The vessel master or owner expects that workers will keep written accounts of incidents to submit with any reports. The employer will keep a written record of investigations, including the findings.

3.2 Personal Floatation Devices (PFD)

- When working on deck, all crew are required to wear a PFD, or life jacket.
- When working alone, the PFD or life jacket must have at least 93 Newtons (21 pounds) of buoyancy and be self-righting.
- PFD’s that are not inherently buoyant must have self-inflating mechanisms.
- All PFD’s and life jackets must have white or silver retroreflective material on the surfaces that normally remain above the water.

- 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.

3.2.1 Immersion Suits

Vessel Masters are required to ensure that for every person on board there is:

- Transport Canada approved Immersion Suit.
- Conduct emergency drills with the Immersion Suits at least annually or with the addition of any new crew member.
- Ensure that all on board know where their immersion suit is, how to wear it and regularly inspect its condition.

4.0 SAFE DIVING PRACTICES

These safe diving procedures/practices must be updated on an as-needed basis for any new equipment and processes used. This shall be considered a "living document", updated as needed, and is intended to keep workers safe in the performance of their job tasks. The dive supervisor is responsible for ensuring safe work procedures are followed.

Safe Work Practices and Procedures are closely related but differ in their degree of specificity. Practices offer guidelines, and do's and don'ts, whereas procedures are step-by-step instructions that explain how to safely complete a job from start to finish - they are very specific. The intention is that by following the specified procedure, even someone not trained in that specific task can understand how to complete the task safely. This is need-to-know information that should be provided to all employees during the training process and as a refresher and comprises part of the company's due diligence.

4.1 General Safe Diving Procedures

4.1.1 Risk Assessment

Prior to diving, the dive supervisor must carry out a 'Risk Assessment'. The supervisor must assess all the hazards that may apply to the operation and what steps have been taken to minimize these hazards.

- These hazards and prevention steps are required to be documented using a Dive Hazard Assessment (FLHA) or Toolbox Talk found in the appendix.

4.1.2 Safety Stops

Safety stops are simulated decompression stops that are not required for decompression purposes but are recommended when divers are diving deeper than 60 feet (20 meters). They must not be used as a means to avoid emergency decompression stops or extend allowable bottom time. For these dives the safety stop is recommended as stopping at 15 feet (4.5 meters) for a period of three minutes. The best diving advice from diving physiologists suggest that safety stops after dives deeper than 60 feet are good and prudent practice.

All diving must be conducted in strict accordance with acceptable dive tables. Divers must be advised that safety stops are not mandatory, and they should proceed directly to the surface when the air supply is low or there are any other circumstances that require a quick exit from the water.

4.1.3 Potential Marine Hazards

When dealing with hazards, the Dive Supervisor is required to assess each situation and determine if it is safe to dive.

Environmental Hazards:

- **Weather:** Obtain weather reports prior to the diving operations and consider postponing the diving operations if extreme weather is closing in. It can be very dangerous diving in conditions of surf or heavy seas, significantly increasing chance of injury.
- **Tides & Currents:** Check tide and current tables and conduct dives during periods of slack waters or low current if possible. High current (i.e., more than 1 knot or 55cm/s) is

extremely difficult to work in, placing excessive stress on divers which increases the possibility of entanglement, exhaustion, missing divers, and hypothermia.

- **Low Visibility:** Extra care should be taken in situations of low visibility. Stay with a dive buddy, use diver held lights, lifelines, or other means of increasing detection and/or communication.
- **Thermal considerations:** Cold water diving requires consideration of hypothermia for the divers, equipment modifications and post-dive rewarming facilities. All diving operations in local waters (cold water diving) are to be completed in a dry suit as wetsuits are unacceptable.
- **Vessel Traffic:** Divers should be cautious when surfacing in areas where multiple vessels are harvesting. Tenders must be diligent to identify the location of their divers to other vessels should they be working in the area or transiting through. Ensure the dive vessel is displaying the correct flags (see section 4.1.5).

Biological Hazards:

- **Marine animals:** Although most marine animals flee from or are harmless to divers, many animals will attack if threatened or cornered. Conduct risk assessments for larger animals and consider having treatment for jellyfish stings or urchin spines in the first aid kit.
  - If animals are behaving in a threatening manner towards a diver, the diver should exit the water. The diver may return to the water if:
    - The animal has moved on; or
    - The boat moves to a new dive site.
- **Contaminated Environments:** Divers are ***not permitted*** to dive in areas of sewage outfalls, effluent run-off, septic fields, wild and domestic animal used waters and other biologically polluted waters as contaminated. E. Coli, Hepatitis, Salmonella, Giardia and many more bacteria all can cause major health concerns to diver exposed to them. Dives in these environments require special considerations and equipment to protect the divers. Scuba is NOT the proper equipment choice for contaminated environments.

Mechanical Hazards:

- **Overhead environments:** The scuba diver must work in areas where a direct ascent to the surface is possible. Diving is not to take place an area where there are overhead obstacles (e.g., docks, ships, barges, ramps, etc.).
- **Entanglement:** Kelp and/or rope can quickly and easily entangle a diver. Precautions should be taken when diving around kelp or lines. Divers must carry a knife which is easily accessible with one hand and above the waistline and should consider diving with a buddy where there is an increased risk of entanglement.
- **Pinch Points:** Pinch points are areas where the diver can get caught or crushed between two objects.
- **Tripping and falling:** Efforts must be taken to prevent falls by using handrails or barricades to protect workers. All walkways must be kept clear and slip free. Keep holds closed when divers are on deck.

4.1.4 Dive Equipment

Dive supervisors must ensure that all divers:

- Ensure their equipment is being used for its intended and designed use and is regularly serviced according to manufacturer and regulatory requirements.
- Maintain and properly store all dive equipment after its use.

Each diver must be equipped with the following:

- Dive mask.
- Depth and Pressure gauges.
- Diver watch or submersible timing device.
- Quick release dive weights.
- Drysuit.
- Dive Knife.

SCUBA Only

- Buoyancy Compensating Device (BCD).
- Regulator with extra 2nd stage.
- Fins.
- Surface sound signalling device – Dive Alert pneumatic signal devices work great but only if there is pressure in your SCUBA bottle, a pea-less whistle must be carried as a secondary signal.
- A surface marker buoy is recommended in poor conditions to help the dive tender see a diver at the surface.

Surface Supply Only

- Bail-out bottle.
- Non-return Valve.
- A full-face mask with audio communications is highly recommended.

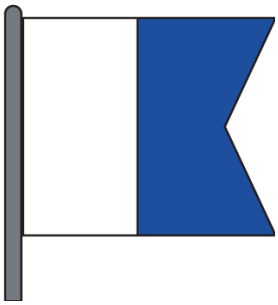
NO DIVING SHALL TAKE PLACE WITH EQUIPMENT KNOWN TO BE FAULTY OR MISSING

4.1.5 Dive Boats/Sites

All dive boats/sites must have a current list of facilities with hyperbaric chambers capable of providing emergency treatment and the locations and phone numbers of the nearest hospital and emergency services. Live-boat diving operations must be conducted during daylight hours, in appropriate weather, current and sea conditions, and from a vessel with the necessary maneuverability to ensure a diver's safety and which is under the control of a competent operator. Dive boats must be equipped with specific equipment based on the length of the vessel and the planned voyage; refer to the Small Vessel Compliance Program for your specific vessel/voyage. This equipment must include:

- Medical Oxygen equipment and spare cylinders sufficient to reach the nearest hospital.
- First Aid Kit as determined by the First Aid Assessment.

- VHF Radio and/or other equipment to provide voice communication with emergency personnel.
- Marine pyrotechnic distress signals approved by Transport Canada that are less than 4 years old (based on date of manufacture).
- An CSA approved PDF for each person onboard
- Buoyant Heaving line (Throw Bag).
- Anchoring system (boats).
- Stricken diver retrieval or re-boarding system.
- Marker buoys and warning devices that identify the dive area.
- Dive Flags



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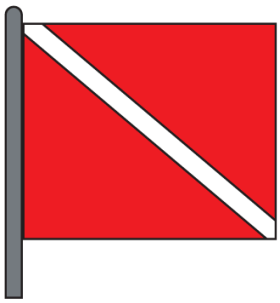


Recreational Dive Flag

- A complete set of dive tables and a copy of the WorkSafeBC Part 24 Diving Regulations.
- Other safety equipment as required by the Small Vessel Compliance Program specific to the size of vessel and voyage being undertaken (e.g., EPIRB, life raft, immersion suits in cold water, etc.).

4.1.6 Dive Tanks and Compressors

Only tanks with current hydrostatic and visual tests may be used. Each scuba cylinder must be hydrostatically tested at least once every 5 years and visually inspected internally at least once a year. All tanks must be filled using a certified dive compressor with a valid and current air test. A copy of air quality test results, meeting all applicable standards, must be obtained showing a pass within the past 12 months. All service and testing records should be entered in a maintenance log.

If using a portable compressor, the intake must be placed so it draws clean, pollution free air, away from all exhaust sources. Operators must ensure that the intake hose is secure and prevent the chance of the end of the intake hose being submerged in water.

Compressors:

- Must be fitted with breathing air filters.
- Must be oiled only with certified breathing air oil.
- Should be fitted with air quality monitors which monitor for humidity and CO contamination.

For Surface Supplied Diving

- 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 no-return valve on the inlet side, a pressure gauge, an over pressure relief valve, and a drain cock capable of draining any fluids.
- Compressors supplying a volume tank must automatic, be capable of developing a pressure at least 25% greater that the anticipated pressure requirement and be capable of maintaining a supply of air equal to at least double the volume of air required.

4.2 Diver Communications

There are several methods from a diver to maintain communication with the dive supervisor (the vessel) and other divers. These methods will differ depending on if SCUBA (refer to 4.3.2) or surface supplied diving (refer to 4.4.2) operations are taking place. In all cases it is critical that the diver be able to communicate with the boat and vice versa.

4.3 SCUBA Diving Procedures

SCUBA diving operations must meet certain standards as defined in Part 24 of the Occupational Health and Safety Regulations. SCUBA must NOT be used in operations where the diver may be entrapped, does not have free access to the surface, or may be exposed to a contaminated environment. Due to the practice of live-boating, SCUBA is primarily used for urchin and sea cucumber harvesting.

4.3.1 Pre-Dive Procedures

All divers must ensure they have all the equipment listed in 24.38 and it is serviced and in good working order.

- The dive tender will assist the diver, as needed, in donning their equipment.
- The dive tender will perform a pre-dive check of the diver to ensure:
  - Drysuit zipper is in good condition and is fully closed,
  - All equipment is properly secure, straps are tightened, mask seals are clear and effective,
  - Dive weights are free from obstruction and can be ditched, if necessary,
  - The diver's knife is secure and can be reached above the waist in case of entanglement,
  - Tank valve is on and there is sufficient air in the tank to complete the work,
  - Ensure that both the diver and the tender understand the work plan and communications to be used (diver recall, signal for a new bag, signal for assistance, etc.).
- The dive tender will perform a pre-dive check of the work area to ensure:
  - The deck is clear and free of tripping hazards for the diver to enter the water safely,
  - The ladder is secure and clear of obstructions for the diver to enter/exit the water safely,
  - There are no immediate hazards in the water, and it is safe for the diver to enter (sufficient water depth, no entanglement hazards such as kelp, no obstructions such a logs or other divers, the boat is out of gear and there is no risk of injury from the propeller).

4.3.2 Diver Communications (SCUBA)

Each diver on SCUBA must employ the buddy system whereby 2 divers remain in constant visual or physical contact, be identified by a surface float, or be in constant audio communication with the dive vessel. Being tethered to the vessel with a lifeline is NOT acceptable when live boating a harvester on SCUBA.

A commonly used practice in the sea cucumber and sea urchin fisheries is the use of the buddy system. Both divers must work together and be in constant visual communication to be able to assist one another in case of an emergency. Hand signals between the divers or between the divers and the vessel/tender must be agreed upon before the diving commences. If at any time the divers lose contact with one another they are to complete a brief 360° visual sweep (including above and below), and immediately surface to re-establish contact if required.

An excellent way for the dive tender to keep track of any diver's position is to have a float tied to the urchin or cuke pick bag. The vessel operator will be able to easily see where the diver(s) is working, and the diver can bob the float to communicate with the tender. Having the float line attached to the product bag and not the diver increases safety in case the float line gets entangled in the propellor or in kelp.

Wireless comms are available but are rarely used due to the limitations of range and battery life. If they are to be used, they must be tested as soon as the diver enters the water.

4.3.3 Dive Procedures

The following are best practices for SCUBA diving in the seafood harvesting industry:

1. If conditions are suitable for working the vessel travels to the harvesting grounds
2. Once on site complete a site assessment and review the dive plan. Discuss:
    a. Depth and time limits. (within no-decompression limits)
    b. Communication to be used (in order of preference):
        i. In-water comms. Not all divers or vessels will have the equipment for wireless communications; all crew must be fully trained in their use and be aware of their limitations (battery, range, etc.).
        ii. Buddy system – safest; if you run into an issue your buddy is there to help. Must always maintain visual contact with your dive buddy.
        iii. Identifiable float – this is a good option providing there is no risk of entanglement from kelp or live boating. The float must be connected to the pick bag in case of entanglement with a boat propellor while live boating. If there are two divers in the water with floats the floats should be marked to identify each diver.
        iv. Lifeline – this is NOT acceptable for live-boating or diving in thick kelp.
    c. Direction along the shore/site the harvester will work.
    d. Divers to stay in view of each other while harvesting.
3. Each diver will check their dive gear.
4. Dive tender / dive supervisor will check dive equipment on deck (dive compressor, tanks, dive ladder, etc.).
5. Diver(s) will don their SCUBA equipment.

6. Dive tender to provide buddy check of gear (equipment secured, quick release dive belt free of obstruction, air is on and sufficient, product bag ready).
7. Review signals:
    a. In case of diver emergency
    b. Diver Recall
    c. Need a new bag
    d. Last bag
    e. Coming back onboard
8. Safely enter the water (in order of preference: climb down ladder, giant stride, back roll)
9. Begin harvesting:
    a. SEA URCHINS
        i. Diver(s) will pick red urchins (RSU) using an urchin rake and green urchins (GSU) using over-gloves.
        ii. Each diver will have the rake on one hand and carry the pick bag in the other. The pick bag is not attached to the diver.
        iii. Urchins are swept into a pick bag with the rake (RSU) or their hand (GSU)
        iv. A lift bag is attached to the pick bag to carry the weight of the harvested urchins. The diver can add or remove air to neutralize the bag.
        v. Once the pick bag is full the diver will swim to the surface with the bag or bob a surface float to signal to the dive tender.
        vi. Diver tender will maneuver the vessel to retrieve the full bag and hand off an empty bag.
        vii. Diver will descend and continue harvesting until low on air (500 psi min) or until they are done harvesting.
        viii. When the diver needs to return to the boat they will signal the dive tender, who will maneuver the boat to pick the diver up.

    b. SEA CUCUMBERS (Cukes)
        i. Diver(s) will harvest cukes with their hands.
        ii. Cukes are placed in a pick bag. A best practice is that the pick bag is held in the diver's hand and is not attached.
        iii. Once the bag is full the diver will swim to the surface with the bag or bob a surface float to signal to the dive tender.
        iv. Diver will signal the dive tender to maneuver the vessel to pick up the full bag and hand off an empty bag.
        v. Diver will descend and continue harvesting until low on air (500 psi min) or until they are done harvesting.
        vi. When the diver needs to return to the boat they will signal the dive tender, who will maneuver the boat to pick the diver up.
10. Once harvesting is completed the diver will signal the dive tender to come pick them up. The diver will climb up the dive ladder; the dive tender should be there to assist if necessary.
11. After diving is completed and the product is secured on deck for travel by the dive tender then a dive debrief should take place.
    a. Discuss how the diving went, including any challenges.

b. Discuss what could be done differently to address any challenges.
c. If any equipment needs to be repaired notify the dive supervisor; the equipment must be removed from service until repairs are made.

12. Once the vessel has arrived at the dock or the packer the crew should assist in securing the vessel (i.e. tie it up) to begin offloading.

4.3.4 Post-Dive Procedures

Once a diver has surfaced and completed a dive the diver's tender must assist by safely maneuvering the vessel to recover the diver, ensure the dive ladder is secure and free of obstructions, and should assist the diver up the ladder if required. Once the vessel is in safe water the tender shall assist the diver in the removal of their equipment as required.

Once all diving operations have been completed the Diving Supervisor must lead the crew through a dive debrief to discuss any challenges with the work, any safety concerns, and any ways to improve the work practices for next time.

4.4 Surface Supply Diving

Surface supplied diving operations must meet certain standards as defined in Part 24 of the Occupational Health and Safety Regulations. Surface supply diving is primarily used for geoduck harvesting, where the boat is anchored.

- Each diver must have their own hands-on tender unless audio communication is used.
- Non-return valves must be used and checked prior to use.
- Compressors used must provide at least double the volume required and at least 25% greater pressure than the expected dive.
- Volume tanks used must meet Part 24.44 of the OHSR and be fitted with breathing air filters.
- Breathing air lines must be guarded against damage and fitted with a gauge showing the pressure it is delivering.

4.4.1 Pre-Dive Procedures

All surface supply divers must ensure they have all the equipment listed in 24.42 and it is serviced annually and in good working order.

- The dive tender will assist the diver, as needed, in donning their equipment.
- The dive tender will perform a pre-dive check of the diver to ensure:
  - Drysuit zipper is in good condition and is fully closed,
  - All equipment is properly secure, straps are tightened, mask seals are clear and effective,
  - Dive weights are free from obstruction and can be ditched, if necessary,
  - The diver's knife is secure and can be reached above the waist in case of entanglement,
  - The airline is properly connected to the diver's facemask and is secured to the diver's pack,
  - Sufficient supply/pressure in the bailout bottle and the valve is on,
  - Ensure that both the diver and the tender understand the work plan and communications to be used (diver recall, signal for a new bag, signal for assistance, etc.).
- The dive tender will perform a pre-dive check of the work area to ensure:

- The deck is clear and free of tripping hazards for the diver to enter the water safely,
- The ladder is secure and clear of obstructions for the diver to enter/exit the water safely,
- There are no immediate hazards in the water, and it is safe for the diver to enter (sufficient water depth, no entanglement hazards such as the waterline, airline, or kelp, and no obstructions such a logs).

4.4.2 Diver Communications (Surface Supply)

All surface supply harvesters should wear a full facemask and have constant audio communications with the vessel, this is typically done with wired comms where a communication wire is in the diver's umbilical and connects from a speaker and microphone on the diver with a speaker and microphone onboard the vessel. These are two-way systems and typically the diver's mic is always hot – meaning the tender can always hear the diver. This is ideal as the tender can hear changes in the harvester's breathing to identify possible problems with the diver.

Wireless comms are also available; these use a transducer to wirelessly communicate between the vessel and a diver's speaker and microphone. Wireless systems are typically push-to-talk, so the tender is not able to monitor the diver's breathing.

Whether using a wired or wireless system, both need to be tested. Wired systems can be tested while the diver is still onboard before diving commences; wireless systems can only be tested once the diver is in the water.

If voice communications are unavailable or are not working, then the dive tender must tend the diver's umbilical in order that line-pull signals can be used to communicate. Line-pull signals must be established before the dive so there is no confusion – eg. 2 pulls from the diver means a bag is on the downline, 3 pulls means diver coming up, 5 pulls means there is an emergency and the diver will be pulled in (slowly) by the tender, etc..

4.4.3 Dive Procedures

The following are best practices for surface supply diving in the seafood harvesting industry:

1. If conditions are suitable for working the vessel travels to the harvesting grounds
2. Once on site, and anchored, complete a site assessment and review the dive plan. Discuss:
    a. Depth and time limits. (within no-decompression limits)
    b. Communication to be used (in order of preference):
        i. Wired comms – all surface supplied divers should have wired comms. This is the safest option for harvesting on hose gear.
        ii. Wireless Comms – some boats may have wireless communications. Ensure the batteries are good and the transducer is in the water and working effectively.
        iii. Hands-on tending – if no comms are available then the tender must tend the diver's umbilical for line pull signals.
3. Each diver will check their dive gear.
4. Dive tender / dive supervisor will check dive equipment on deck (diver umbilical, dive compressor and volume tank, waterline, dive ladder, etc.).

5. The dive tender will get the waterline in the water (keeping the stinger onboard) and run the water pump to blow out all the air and untangle the hose if needed. The tender will also clip an empty product bag to the downline down and lowers it to the bottom.
6. The diver will don their diving equipment.
7. Dive tender to provide buddy check of gear (equipment secured, umbilical connected and secured, air is on and volume tank full, product bag ready).
8. Safely enter the water by climbing down the ladder. The tender should hand the stinger to the diver while they are on the dive ladder. The diver may use the down-line to control descent rate when heading to the bottom.
9. Begin harvesting:
    a. GEODUCKS
        i. Divers harvest geoducks by liquefying the substrate using pressurized seawater to extract the geoduck clam.
        ii. Harvested geoducks are placed in a product bag that is clipped off at the diver's hip.
        iii. The diver runs along the seafloor pulling the waterline, which terminates with the stinger, looking for geoduck to harvest.
        iv. When a geoduck show is identified the diver plunges the stinger into the ground around the geoduck to liquify the substrate, then the diver reaches into the liquified ground and pulls out the geoduck and places it into the product bag.
        v. When the diver has a full bag they follow their waterline back to the downline, remove the empty bag that is clipped to the downline and clip on the full bag.
        vi. The tender should wait until the diver is clear of the downline and must lift the bag slowly to prevent the diver from becoming entangled.
10. Once harvesting is completed the diver will return to the downline and clip-off the product bag. The diver will pull himself up the downline and climb up the dive ladder; the dive tender should be there to assist if necessary.
11. After diving is completed, all hoses (water and airline) are back onboard, and the product is secured on deck for travel by the dive tender then a dive debrief should take place.
    a. Discuss how the diving went, including any challenges.
    b. Discuss what could be done differently to address any challenges.
    c. If any equipment needs to be repaired notify the dive supervisor; the equipment must be removed from service until repairs are made.
12. Once the vessel has arrived at the dock or the packer the crew should assist in securing the vessel (i.e. tie it up) to begin offloading.

4.4.4 Post-Dive Procedures

Once a diver has surfaced and completed a dive the diver's tender must ensure the dive ladder is secure and free of obstructions, then assist the diver up the ladder to ensure the umbilical doesn't get entangled. The dive tender shall assist the diver in the removal of their equipment as required.

Once all diving operations have been completed the Diving Supervisor must lead the crew through a dive debrief to discuss any challenges with the work, any safety concerns, and any ways to improve the work practices for next time.

5.0 EMERGENCY RESPONSE

An emergency is an unplanned or imminent event of a short duration that affects or threatens the health, safety, or welfare of people, property, and infrastructure. The vessel master must take appropriate measures to respond to emergencies swiftly and effectively, with the foremost goals of preserving life, protecting the vessel and equipment, and restoring operations as quickly as possible.

General:

1. All crew must be trained in emergency preparedness and response.
2. All fuel and power shut-offs will be clearly marked and kept free of obstructions.
3. Appropriate emergency communication devices will be kept readily available as a means of:
    a. Alerting crew;
    b. Contacting outside assistance.

Emergency Equipment

The following emergency equipment will be available on site:

- A current list of facilities with hyperbaric chambers capable of providing emergency treatment and the locations and phone numbers of the nearest hospital and available emergency assistance.
- A Level 1 first aid kit (at minimum – see Schedule 3-A, section 3.16 of the OHS Regulations)
- Oxygen kit with enough O_2 to reach emergency medical services.
- External communications (for requesting assistance from local authorities): Telephone and/or VHF radio.
- Spill control equipment, adequate for site conditions/equipment.
- Fire control equipment: smoke detectors, fire extinguishers, fire pump (eg. deck hose).

Medical Emergencies

1. In the event of an injury or illness to a crewmember requiring immediate medical attention, the following will occur:
    a. Notify the Master (providing it is not them in distress)
    b. Recall any divers that may still be in the water.
    c. Contact, on Ch. 16 or satellite phone, the Coast Guard and describe the injury.
    d. Administer appropriate CPR/First Aid as necessary, as directed by the First Aid Attendant or the Coast Guard.
    e. See section 5.2.4 *Evacuation Procedures*
        i. Secure the injured/ill for travel, securing the vessel as conditions dictate.
        ii. Package the patient for transfer to the attending Coast Guard resource.
            1. If the injured is a diver showing signs of DCS, the dive supervisor should accompany the diver if practical.

5.1 Emergency Response Protocols

The vessel 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. Vessel specific procedures must be developed as per regulation and be available to all crew. The master must keep a record of all emergency drills conducted with the crew.

5.1.1 Calling for Help

If there is an emergency and help is required, it is best to call early, and stand-down emergency resources then wait until it is too late. Contact Coast Guard Radio on VHF Ch 16, or dial *16 or 9-1-1 on a cell phone to reach emergency services. For major incidents involving evacuation the Joint Rescue Coordination Center (JRCC) can be reached at 1-800-567-5111.

Procedure for issuing a Mayday:

If there is grave and imminent danger to a person or the vessel then issue a mayday call by doing the following:

1. Ensure the radio is on
2. Open cover over red distress button
3. Press and hold the red distress button for 5 seconds
4. Broadcast the following message on Ch. 16:

MAYDAY, MAYDAY, MADAY

THIS IS _____, _____, _____

(vessel name spoken 3 times)

MY POSITION IS _____

(provide latitude and longitude or position relative to charted object – eg. point, inlet, etc.)

WE _____

(state nature of distress – i.e. sinking, fire, man overboard, etc.)

I REQUIRE IMMEDIATE ASSISTANCE

WE HAVE _____ PERSONS ONBOARD

[can provide vessel description of other relevant information]

OVER

If there is potential for danger but it is no immediate then issue a PAN-PAN. Broadcast the same message as above but substitute PAN-PAN instead of MAYDAY.

5.1.2 Person Overboard

If anyone is seen falling overboard the following actions must be taken immediately:

- The witness must shout “Man Overboard” in a loud clear voice.
- The witness should throw a buoyant object (buoyant heaving line, throw bag, life ring, bumper, or inflated BCD) to assist the person and mark the position.
- The spotter should maintain visual contact with the person in the water and point with an outstretched arm in their direction.
- The helmsman must immediately bring the vessel around and proceed in the direction of the individual.
- Contact Coast Guard Radio on VHF 16, issue a MAYDAY if the person isn’t recovered immediately.
- If possibly approach the person in the water heading into the predominant conditions (wind, current, or swell).

- Put the throttles into neutral when the person is alongside. Do not touch the throttles until the person is onboard or well past and clear of the engine(s).
- All available crew should assist in the retrieval. Use a re-boarding device if necessary. Persons in distress have pulled would-be rescuer into the water, keep your center of gravity inside the boat.
- Once onboard, the patient should be treated for hypothermia and any other injuries suffered.
- If it is necessary for someone to enter the water to rescue a person overboard, see the water rescue section (5.1.4) below.

5.1.3 Vessel Collision

In the event of collision with another vessel or structure:

- All crew must be accounted for.
- Life Jackets are to be distributed.
- Contact Coast Guard Radio as soon as possible.
- Once hazards are addressed, injuries should be assessed and treated.
- Treat injuries in order of severity from life threatening to minor.
- Other crews should be attended to only after our crew is taken care of.

5.1.4 Water Rescue

In situations where we need to rescue a diver in distress there are some important considerations we must make before we 'jump in'.

1. Rescuer self-preservation:
    a. The rescuer must not attempt a rescue unless they are confident, they are able to without compounding the situation by becoming a second victim. The rescuer will always assume some risk in conducting a rescue, but we must minimize this risk as much as possible.
2. Alert others:
    a. When we see a diver in distress, we must ensure that others on the team know to come and assist. In this way, if the rescuer succumbs to problems, others are on the way to help.
3. Water Rescue Protocol:
    a. The Royal Life Saving Society (R.L.S.S.) teaches the use of the motto **"Reach, Throw, Row, Go, Tow."** and dive team members must follow this protocol for all water rescues.
        i. Reach:

        Our first effort should be to try to reach the victim from the safety of the boat or dock. Use a reaching assist such as a pole, rope, ladder or throwing line.

        ii. Throw:

        Throw a floating object to the victim to help them stay afloat. A life ring, life jacket, boat fender, inflated BCD, empty fuel can, etc.

iii. Row:

Can you move a boat or other floating platform to the victim? It is always safer for the rescuer to work from a boat.

iv. Go:

When the above methods are not practical, the rescuer may decide to swim out to the victim to conduct the rescue. Some considerations here are:

1. Call for help: Let someone know you're entering the water for rescue.
2. Select your equipment: If the victim is in danger of sinking, go with full scuba gear. If you think you can reach them in time, just fins may be faster.
3. Throwing/floating aid: Take a floatation device to pass to the victim.
4. Call to the victim: Instruct them to inflate their BCD or drop their weights. Let them know that help is on the way.
5. Heads up approach: Use a head up entry and approach so you can keep your site on the victim.
6. Call to the victim on the way: This reassures the victim and may help them hold on a bit longer.
7. Stop before contact with the victim: Take a moment to rest and to assess the situation. Notice position of victim's weights and BCD inflator. Reassure the victim and give them instructions if possible.

NOTE: If a diver is in distress the dive supervisor should have the standby diver proceed to render assistance immediately, providing the standby diver is not risking their safety by entering the water.

v. Tow:

Make the victim and yourself buoyant. Weights can always be recovered later. Be careful to not fully inflate the victim's BCD as it can get tight and restrict the victims breathing. Use a tow method that is comfortable and efficient. Once to the boat or shore, assist the victim out of the water.

5.1.5 Tired / Exhausted Diver

Over-exertion is one of the most common problems a diver can face. It is caused when the diver is working beyond the capability of the cardio-pulmonary system. In other words, working harder than his heart and lungs can keep up. Contributing factors can include:

- Swimming against a current.
- Inefficient breathing.
- Inefficient finning or kicking.
- Poorly performing regulators.
- Tight drysuit or B.C.D. across chest.
- Tight drysuit neck seal (Carotid sinus reflex).
- Stress or panic.
- Hard work with insufficient rest.
- CO_2 build up in full face masks.

Signs of a tired or exhausted diver can include:

- Increased flow of exhaust bubbles coming from mouthpiece.
- Trying to swim with a very inefficient kick.
- Panting for air at the surface, may call for help.

The situation also results in the diver retaining too much CO2 in their system, causing Hypercapnia. With over-exertion, the diver experiences headaches and nausea, hunger for air, and an overall distress or uncomfortable feeling which could lead to panic. To prevent the situation from worsening, the diver should:

- Stop all activity, hold onto the bottom or some stationary object.
- Take a couple of deep breaths, relax as much as possible.
- Get to the surface and make themselves buoyant, this may include dropping their bag of product or dive weights (at the surface only).
- Don't fight the current, drift with it. The boat will pick you up.

The standby diver should be prepared to render assistance in any way practical.

5.1.6 Panicked Diver

Once a diver has panicked, he/she has lost control and the ability to think rationally. This can be the most dangerous victim for the rescuer because the panicked diver will crawl or climb onto the rescue diver in the interest of self-preservation. A panicked diver can be recognized by:

- Thrashing movements, like climbing a ladder.
- Wide, unfocused, unseeing eyes.
- Little or inefficient leg movement (kicking).
- Mask off or on forehead.

Rescue considerations:

- Approach the panicked diver with extreme caution! A panicked diver may try to climb onto their rescuer.
- Note the position of their weight release and inflator.
- Keep your regulator in your mouth, get behind them and make them buoyant.
- Consider swimming underwater to release their weights when the diver is at the surface.
- If the diver is underwater get them to drop their equipment (product bag, rake, etc.) and lay on the bottom or hold onto a rock until they can catch their breath and calm down.
- If it appears too dangerous to contact the panicked diver, wait until they collapse from exhaustion and then begin your rescue.
- Once they are buoyant, let them calm down and you rest before towing them in. Be cautious as they may go into panic again.

5.1.7 Unconscious Diver

An unconscious diver must be taken to the surface as quickly as safely possible, following a safe ascent rate. Once on the surface, we must ensure an open airway and start A.R. if necessary.

If you encounter an unconscious diver under water:

- If the regulator is still in the diver's mouth, then place your hand over the regulator holding it in their mouth. If the regulator is out, leave it out.
- Bring victim to surface at a controlled emergency ascent rate.

- If the unconscious diver is ascending too fast, let them go and re-establish contact at the surface.
- Upon reaching the surface, drop their weight belt and then drop your own. Tilt their head back and check for breathing. If the patient is not breathing give them two breaths.
- Call for assistance and tow them to the nearest shore or platform as fast as reasonably possible.
- You may begin removing your equipment and the unconscious diver's equipment as long as you can maintain an open airway.

DO NOT disassemble the victim's equipment or bleed any gas in the system. A WorkSafe BC officer may inspect the equipment as part of their investigation into the incident.

5.1.8 Missing "Buddy"

When utilizing the buddy system, divers must maintain visual or physical contact with their dive buddy. If separated, buddies must re-establish contact as soon as possible.

- If a diver loses visual contact with their buddy, the diver must:
  - Begin by doing a visual scan in a circle around their position (remembering to look in all directions, including upwards and downwards).
  - Surface immediately if the buddy is not observed during the visual scan.
  - If both divers follow this procedure, they should re-establish contact at the surface shortly after having been separated.
- If a diver surfaces but their buddy does not, the diver must:
  - Signal the dive supervisor and inform them of the situation.
  - The dive supervisor must begin procedures for a "Missing Diver" below (5.1.9).

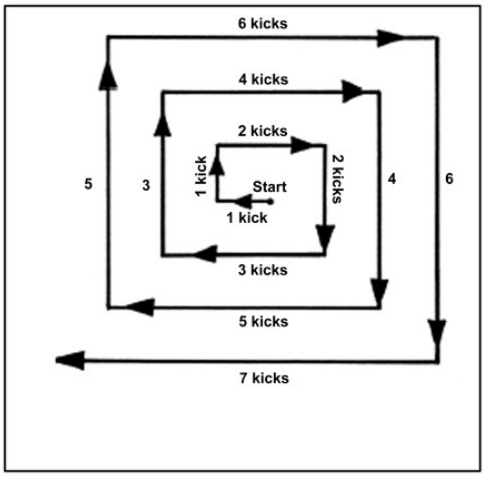
5.1.9 Missing Diver

A missing diver is considered an emergency and requires immediate action.

- Cease diving operations, recall remaining divers in the water by deploying a diver recall pyrotechnic or by banging on the hull or the dive ladder with something hard (eg. hammer or wrench).
- Place a waypoint on the GPS.
- Begin a surface search. Have all hands searching, looking for bubbles or signs. Concentrate in the area of highest probability, taking into account last known position and effect of currents, but do not restrict your search to there.
- Deploy a datum marker buoy (eg. fender with a dive weight hanging from it to simulate a person sitting low in the water) at the last known position to determine drift – record the position the DMB went in and again 10 minutes later. Give the coordinates to Coast Guard radio so they can calculate the drift to help narrow down the area of highest probability.
- Contact the Coast Guard and report an 'overdue diver' or 'missing diver' depending on how certain you feel about the situation. It is better to call the Coast Guard early and get them on their way. They will not mind being stood down if the diver is found. Provide the CG with

last know position (LAT/LONG), a description of the vessel and a description of the diver (eg. diver has a red hood)

- If required, the rescue diver should begin an underwater search using an 'expanding square' search pattern (see below). Be sure the rescue diver has a float to mark their position at the surface and has sufficient air and no-decompression bottom time before commencing the search.



- Divers in a search must not subject themselves to risks, such as decompression illness.

5.1.10 Low Air Event

When a diver notices that they are getting low on air (<500 psi) the procedure will be as follows:

- Immediately notify their buddy if diving with one. Both divers need to surface together.
- Prepare to leave the bottom immediately.
- Begin ascent, controlling buoyancy and breathing normally.
- Upon reaching surface, inflate BCD and establish positive buoyancy.
- Signal the dive tender that you need help using the established emergency signal (eg. waving your arms or blowing your whistle) to get picked up immediately.

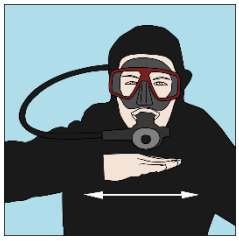
If the situation deteriorates, then follow the procedures for an "Out of Air Event" below.

5.1.11 Out of air Event

Divers must always attempt to prevent an "Out of Air Event" by monitoring their air supply and terminating the dive when the air supply falls below 500 psi. If, through extenuating circumstances, the diver finds themselves "Out of Air" the procedure will be as follows:

- Normal Ascent:
  - Attempt to signal buddy and make a normal ascent. Upon ascending, air will be made available to the diver through normal volume expansion and reduction in ambient pressure.
  - Upon reaching the surface, establish positive buoyancy.

- Alternate Air Source:
  - If the diver finds themselves in a situation where they are out of air and cannot make a normal ascent, then the option of next choice is to share air from their buddy with the use of their alternate air source (octopus, Air 2, etc.). The procedure is as follows:
    - Signal the buddy with the “out of air” signal (a hand slashing across the throat).
    - Both buddies should swim towards each other with the donor buddy locating their alternate second stage and holding it out in front of the ‘out of air’ diver.
    - The out of air diver should put the mouthpiece of the alternate second stage in their mouth and clear or purge the regulator before breathing from it.



    - Both buddies should face each other and lock arms to maintain contact.
    - Each buddy should then signal each other to ascend (a thumbs up sign) and then swim together to the surface.
    - Upon reaching the surface, the divers should make themselves positively buoyant before separating. Signal the dive tender and wait for the boat or swim to shore.
    - The dive must be debriefed with the dive supervisor to determine how the situation could have been prevented.
- Buddy Breathing:
  - Buddy breathing (sharing the same second stage) is a dangerous practice but may be the only option in certain situations. In this technique both divers hold a single second stage regulator and each diver alternates taking 2 breaths at a time.
  - In semi-calm situations, this method can be very effective.
  - In near panic situations, this technique may prove fatal to both divers.
  - In near panic situations, it is advised that the diver performs an emergency swimming ascent instead.
- Emergency swimming ascent:
  - If an out of air diver can not perform a normal ascent or contact their buddy to conduct an alternate air source ascent, the following steps should be taken:
    - The diver must keep the regulator in their mouth as air will be made available through normal volume expansion and reduction in ambient pressure.
    - Take care to ensure that the diver is free from any line or entanglements.
    - Look up to the surface, reach up with one hand and swim up. Be sure to make your first few fin kicks strong to get off the bottom and establish upward momentum.
    - Be sure to exhale upon ascent. As the diver ascends, they will be able to take shallow sips of air from the regulator.
    - Control buoyancy with the BCD and drysuit exhaust valve.
    - Upon reaching the surface, establish positive buoyancy.
    - Signal the surface tender.

- Emergency Buoyant Ascent:
    - Under certain circumstances it may not be possible for the out of air diver to do any of the above methods of ascent. As a last resort the diver may opt to drop his weights in order to get immediate positive buoyancy and get to the surface. This technique has the most risk as the diver loses control of their buoyancy / ascent speed. In this situation the following steps should be taken:
        - The diver must keep the regulator in their mouth as air will be made available through normal volume expansion and reduction in ambient pressure.
        - The diver must prepare to release their weight and take a moment to make sure the weights are clear of the diver's body before complete release.
        - When the weights are released, the diver will begin a rapid ascent.
        - The diver should attempt to dump expanding air from the BCD and drysuit and may attempt to flair out to slow the ascent.
        - Upon reaching the surface the diver should signal for assistance and rest until rescued.
        - Upon rescue the diver should be treated for a "blow up".

5.1.12 Blow Up

A blow up is a condition where the diver has made a rapid, uncontrolled ascent to the surface. This may be caused by one of the following:

- BCD or drysuit inflator valve stuck open.
- Drysuit exhaust valve stuck closed.
- Weight belt fell off or integrated weights fell out.
- Air trapped in the legs/feet of a drysuit and diver unable to right themself.
- Diver drops heavy object being dragged (product bag).
- Upwelling current sweeps diver to surface.
- Diver panics and rushes to the surface.

Diver procedures:

If the diver suddenly feels a rapid increase in buoyancy, they should try to determine the source:

- If an inflator valve is stuck:
    - The diver should attempt to disconnect the inflator whip and dump any excess air from their suit to slow the ascent.
- If the weight system has fallen off and is in reach:
    - The diver should swim hard to the belt and attempt to hold onto it. The belt can be reinstalled on the bottom or carried to the surface for reinstallation.
- If the weight system has fallen off and is out of reach the diver will be forced to the surface:
    - Keep the regulator in your mouth and exhale upon the ascent.
    - Dump air from the drysuit and BCD as required.
    - Look up to keep the airway open and watch for overhead obstructions.
    - The diver may flare out to slow the ascent.
    - The diver must remain on the surface for at least one hour to watch for signs of DCI.

Topside procedures:

- The blown up diver must be removed from the water as soon as possible and observed for signs of decompression illness.
- The diver should be given a 5-minute neurological exam (see appendix) every 15 mins over the period of one hour.
- If there are no signs of DCI after one hour, the diver may be allowed to re-enter the water.
- If the diver shows any signs of DCI, we must assume the worst and evacuate the diver to a recompression chamber.

5.1.13 Entangled Diver

Underwater there are a multitude of potential entanglement hazards, the most common being kelp. Divers should always keep a look out for entanglement hazards and should keep all equipment secure and close to the body to prevent getting tangled.

If entangled it is important to:

- ***Stay Calm!*** Twisting and struggling will only make it worse.
- Stop, take a deep breath, and think before you act.
- Signal your buddy to assist you.
- Attempt to untangle yourself slowly and calmly.
- If necessary, use your knife to cut yourself free. Be certain you can always see what you are cutting. Cutting behind your back may result in cutting an air hose or yourself.
- If tangled from behind, slowly and methodically remove your BCD while keeping your regulator in your mouth. Untangle the hazard and replace your BCD.
- Do not drop your weights, this will only make you more buoyant and extremely difficult or impossible to untangle yourself.
- Do not risk your life to save the product in your bag – drop it if necessary!
- As a last resort, if the tank and/or BCD are severely tangled, the diver can remove the BCD and attempt a free ascent to the surface. Be advised that this is an extremely risky maneuver and should only be done in the most desperate scenario.
- If your buddy is tangled and signals you for assistance, remember to not endanger yourself as well. If you get tangled there will be no one to help. Ensure the diver has sufficient air and devise a plan before attempting to untangle them.

5.1.14 Leak in Drysuit

A leak in the drysuit may be as a result of a tear in the suit material or by the parting of the waterproof zipper. The leak will result in both the diver getting extremely cold, and a major loss in buoyancy. Procedure:

- Inform your buddy and return to the surface.
- Keep the leak down at the lowest point to trap the air (unless zipper is parted).
- Use BCD for buoyancy control.
- Treat diver for hypothermia if necessary.

5.1.15 Contaminated Air

On rare occasions, a diver's air may be contaminated with Carbon monoxide (CO) or other toxic/poisonous gases. Symptoms may include headache, nausea, dizziness, confusion and flu-like symptoms. Upon the onset of any of these symptoms, the diver must immediately inform his buddy and return to the surface.

Divers must abort the dive if they feel any of the following:

- Headache, nausea, body aches or flu-like feelings.
- Dizziness, loss of focus, unusual fatigue.
- Mental confusion, loss of co-ordination.
- Any symptoms of distress.

The most common cause for contaminated air on dive boats is exhaust from the vessel's main engine or from a gas-powered dive compressor entering the air intake of the dive compressor. The air intake for a dive compressor should be located forward of any exhaust sources, in an area that receives fresh air. Ensure the intake cannot fall in the water as this will damage the compressor. The vessel operator must be conscious that the wind is not blowing exhaust towards the intake.

In-line visual indicators for moisture and CO, like the one shown above, should be installed on all dive compressors, and should be inspected regularly.

5.1.16 Fire

Fires can start anywhere and at any time; know the locations of all fire extinguishers on the boat.

A few key points to maintain:

1. Good Housekeeping is essential in the prevention of fires.
2. Always store flammables in safe locations, clear of work areas.
3. Immediately report any fires or fire damage to the vessel master.
4. CO_2, Halon and other gas type extinguishers are not permitted inside the boat.
5. The type and number of extinguishers needed aboard a vessel must meet the requirements of Transport Canada based on the length of the vessel.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers must be properly maintained.

There are four general classes of fires and fire extinguishers specific to the type of fire they are appropriate for.
They are:

1. *Class "A" Fires* - fires occurring in materials such as rags, paper, wood, and trash;

2. *Class "B" Fires* - fires arising from the vapor-air mixtures found with flammable liquids such as gasoline, oil, grease, paints, and thinners;
3. *Class "C" Fires* - electrical fires or fires occurring in or near electrical equipment, thereby presenting the additional hazard of electrical shock;
4. *Class "D" Fires* - fires that involve combustible materials such as sodium and magnesium.

Prevention is the best method to fight fire; all steps should be taken to prevent a fire onboard. If a fire does occur:

Follow FIRE

Find	• Find the fire
Inform	• Inform the Master; immediately muster all crew • Send a distress call on VHF 16 to the Coast Guard and any nearby vessels
Restrict	• Restrict air supply to the fire – close hatches, ports, etc. • Shut off fuel supply (main fuel, propane, etc.) • Maneuver vessel to minimize effect of wind on the fire and blow smoke away from crew
Extinguish	• Extinguish the fire • Determine the class of fire, appropriate equipment, extinguishing agent, and method of attack • Account for all crew and set up a re-flash watch
IF UNABLE TO CONTROL THE FIRE, PREPARE TO ABANDON THE VESSEL	

To operate an extinguisher, remember the PASS Procedure:

1. Pull the pin;
2. Aim nozzle at base of fire;
3. Squeeze the handle;
4. Sweep nozzle side to side.

5.1.16.1 Fire Safety Plans

Each vessel is required to develop a fire safety plan.

5.1.17 Sinking

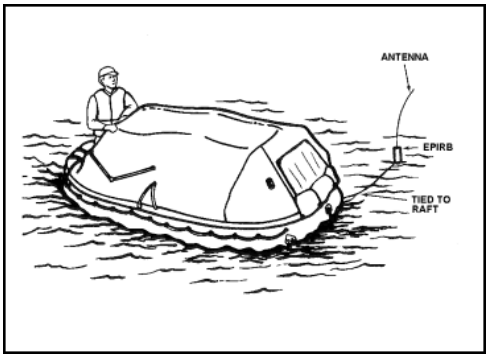
If the vessel is taking on water:

- Have all crew suit up in dive suits and life jackets.
- Attempt to stop or slow the leak by using plugs, dams, or any other means.
- Assign crew to man the bilge pump and/or bailers.
- If necessary, contact Coast Guard Radio on VHF 16 or *16 on a cell phone.
- Elevate the batteries to prevent them from shorting out in the salt water.
- If necessary, attempt to beach the boat.
- Abandon ship if necessary (see 5.1.18).

5.1.18 Abandon Ship Procedures

If the vessel is on fire, sinking, or capsized and cannot be saved, then all hands must abandon ship.

- Every attempt should be made to don dive suits or survival suits, AND life jackets whenever there is a possibility of an abandon ship order.
- Every attempt should be made to issue a "MAY DAY" distress call.
- Ensure everyone is accounted for.
- If possible, take flares, portable VHF, EPIRB, and/or any other distress signaling devices available.
- Attempt to use a dive skiff if abandoning a support vessel or launch a life raft if available.
- If in the water, all crew should remain within arm's reach of each other, or physically hold onto each other if conditions dictate.
- If safe to do so, crew should remain with the abandoned vessel or the largest piece of debris to increase their ability to be spotted by a rescue crew.



- Swimming for shore should not be attempted unless shore is extremely close and obviously the best solution.
- The crew must remain together and await rescue.

5.2 First Aid

5.2.1 Minimum Levels of First Aid

The vessel master must ensure that, prior to departure, all crews have the minimum level of first aid coverage as required by WorkSafeBC.

5.2.2 Neurological Assessments

Instructions:

1. If a diver has undergone any of the following, they must undergo a neurological examination:
   - **a.** Blow up, rapid ascent, panic ascent or other uncontrolled ascent.
   - **b.** Omitted decompression.
   - **c.** Symptoms of pain in joints or muscles.
   - **d.** Symptoms of dizziness, fainting, or tingling.
   - **e.** Symptoms of fatigue or abdominal cramps.
   - **f.** Symptoms of personality or mood change.
   - **g.** Any symptoms that lack apparent cause.
2. The procedures for this neurological exam can be done in as little as 5 minutes. The time the exam is given should be noted and the exam repeated every 15 minutes for the first hour after the event.

3. Follow the questions / prompts on the Neurological Assessment form.
4. Note any unusual answers or responses.
5. Note the patient's voice and speech.
6. Any unusual sign, answer, reaction or response must be noted. If there is any response that is not normal, we must assume the worst and have the patient evacuated to a recompression chamber for treatment.

5.2.3 Patient Positioning

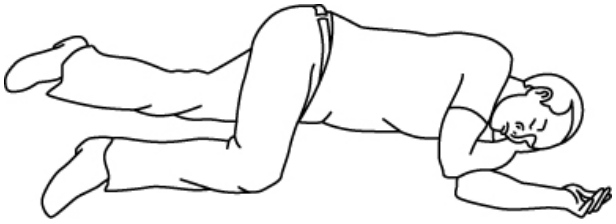
How we position our patient for treatment is very important.

For Conscious patients:

- In general, conscious patients are allowed to assume their most comfortable position as long as they are at rest and not in danger of falling.
- Patients with pneumothorax will probably not want to lie down but will assume a sitting position and want to clutch their injured side.
- Patients with either a heart attack or mediastinal emphysema will want to assume a sitting position with their knees up to their chest.
- Patients with CNS (central nervous system) problems should be made to lie down in the recovery position (3/4 prone).
- Whatever position is used, an open airway must be maintained.

For Unconscious patients:

- Unconscious patients can be kept in one of the two following positions:
  - The recovery position (3/4 prone) is the best as it allows the first aider mobility to move around and care for the patient.
  - If a spinal injury is suspected use the Supine position, with the patient lying on their back. Do NOT raise the patient's legs. In this position, the airway must always be monitored by the first aider.



Recovery position

5.2.4 Evacuation Procedures:

Upon stabilization of the patient, on determination that they require further medical assistance, the patient must be evacuated to a medical facility.

If the injury is deemed minor in nature:

- The divers can simply be recalled and have the vessel make way for the nearest port.

- Upon reaching the port, the patient can be taken to the nearest emergency medical facility for treatment.

If the injury is minor, however the patient is unable to walk or is otherwise incapacitated:

- Upon reaching the port, Emergency Health Services (9-1-1) or the Coast Guard can be contacted for assistance.

If the injury is deemed major:

- The Coast Guard should be called and they will instruct on evacuation procedures.

Evacuation:

- Follow JRCC (Joint Rescue Coordination Center) instructions.
- Prepare patient for transport.
- Continue monitoring patient.
- Dive Supervisor prepares to go with patient.

Items to go with patient:

- The Diver's personal logbook.
- The Diver's dive computer or information about the day's dives.
- The Diver's vital signs (recorded).
- Any Diver's medical information.
- The Diving Supervisor or designate who was involved in caring for the diver.

Diver's Equipment:

- WorkSafeBC will want to investigate the accident and see if there were equipment issues.
- Do not disassemble any of the diver's equipment.
- Simply close the tank valve to prevent any air from escaping and note how many turns the tank valve was open.
- Do not disassemble, repair, modify or tamper with the equipment.
- Collect all divers gear in one place and put it in a secure area.
- Hold equipment for pick up by an investigating officer.

Record Keeping:

- If possible, designate a record keeper to log all important information.
    - Log and track:
        - Patient vitals and times.
        - Emergency agencies contacted and response times.
        - Weather, sea state conditions.
        - Any dive data.
        - Time treatments were administered (O2, etc.).
        - Witnesses, names and contact info.

- Any other information concerning the accident.

Dive Supervisor:

- The dive supervisor or designate must accompany the diver to medical services so they can:
  - Relay all the pertinent dive data to the doctors.
  - Provide specific dive information.
  - Inform medical services that hyperbaric treatment is necessary.
  - Be an advocate for the diver.
  - Inform of diver's medical history.
  - Contact the diver's family.
  - Deal with the authorities.
  - Provide emotional support for the diver.

Medivac Protocol:

- Allow the authorities to do their job and only provide assistance when needed.
  - The medics will need to know vitals and description of accident.
  - Most JRCC personnel know that diving accidents may require recompression, but many doctors do not know this.
  - Learn Helicopter procedures (do not grab the down line until it is grounded), or clarify procedures over the radio with the coordinating emergency services.
  - Have everything ready to go with the diver.
  - Leave the diver's gear assembled and prepare to pass it on to investigators.
  - Have a member of the dive crew (supervisor) go with the patient.
  - Don't worry about oxygen kit and blankets as they will be returned.
  - Prescribe altitude restrictions to pilots such as considering mountain passes in evacuation route.

6.0 HAZARD IDENTIFICATION, ASSESSMENT AND CONTROL

Workplace hazards must be identified both prior to performing work activities as well as on an ongoing basis through inspections, investigations, tours, or audits. Once a hazard has been identified, the level of risk must then be assessed, and controls put in place to eliminate the risk or minimize it to an acceptable level. Risk assessments should be completed regularly as part of [The Company]'s Toolbox Talks.

6.1 Inspections

The purpose of these safety inspections is to:

- Identify all unsafe practices and conditions that could cause injury; and
- Take appropriate corrective action.

The following is what should be inspected:

- Vessels;
- Breathing apparatus (prior to use);
- Compressors (annually);
- Gauges and meters (every 6 months and after incidents);
- Cylinders (visual once per year with hydrostatic every 5 years);
- Tools, equipment, and machinery; and
- Work methods and practices.

6.2 Hazard Identification and Risk Assessment Process

1. *Identify the hazards* – ask yourself 'what could hurt me if something goes wrong?'.
2. *Assess the risk* – in terms of severity and probability, determine if the risk is high, moderate, or low (refer to the Risk Matrix below).
3. *Minimize the risk* – by implementing controls.
4. List the non-critical and critical tasks and ensure appropriate permits and controls are in place.
5. Safe Work Procedures must be written if they are not available for the work.

[The Company] workers will utilize the Dive Hazard Assessment form in order to identify the hazards/risks related to diving at each site. These assessments will consider the tasks and associated hazards and will recommend controls to minimize the risk of employee injury. Whenever a new hazard has been identified as the work is progressing, the risk assessment must be updated to assess the level of risk and minimize it by implementing controls.

7.0 TRAINING, EDUCATION AND CERTIFICATION

[The Company] believes worker education and training is integral to the success of their Occupational Health and Safety program. As such, all new workers will be informed of the need for safety and will have sufficient training to ensure a safe vessel.

7.1 New Crew Orientation

Orientations are required for all new crew prior to the commencement of work.

New - means any crew who is:

- New to the boat;
- Returning to the boat where the hazards have changed during the worker's absence;
- Affected by a change in the hazards of a workplace.

Orientations:

- Will only be conducted by an experienced company representative.
- Each person being oriented will be encouraged and given the opportunity to ask questions or review a specific topic in more detail.
- Will require that when the worker understands what has been presented, they will sign the Orientation Checklist.

7.2 Crew Training

It is essential that crew are properly trained in vessel operations to prevent accidents and injuries. The Master must, prior to the start of the fishing season, instruct the crew on:

- The location of safety equipment such as immersion suits and life rafts.
- The location of engine room components and controls.
- Proper use of deck equipment.
- Safe work procedures for all fishing equipment that will be used during the current operations.
- Procedures and controls for anchoring.
- Location of all emergency equipment.
- Escape routes from enclosed areas like crew quarters and the engine room.

7.3 Training - Divers

A diver must not dive unless they have been thoroughly trained, by a person or agency acceptable to the Board, in the theory and use of the diving apparatus that the diver will be using.

All divers, diving supervisors and divers' tenders must be trained in:

- Diving Accident Management.
- Oxygen (O_2) Therapy.
- CPR.

The employer and diving supervisor must ensure that all divers meet the minimum requirements of CSA Standard Z275.4-97 Competency Standard for Diving Operations. A certified copy of competency documents for each diver must be available for inspection on site by a WorkSafeBC officer.

The dive supervisor must also ensure all divers are trained for the work they are to perform – if the diver is new to the vessel or new to seafood harvesting then they should be accompanied by an experienced diver who knows the vessel's procedures to ensure the new diver is properly mentored. This mentorship should be a minimum of two full days, or until the dive supervisor is comfortable that the diver has been properly trained.

7.4 Transport Canada Training Requirements

Prior to departure, the Vessel Master must ensure that there are at least the minimum certifications and crewing standards onboard. This may require an assessment of vessel size and the distance the voyage will be from shore.

The *Marine Personnel Regulations* (MPR) require the master and crew on watch on any fishing vessel to hold:

- a Small Vessel Operator Proficiency (SVOP) training certificate;
- a Pleasure Craft Operator Card (PCOC); or
- a Fishing Master IV ticket or a declaration of at least seven fishing seasons as master of a fishing vessel of up to 15 gross tonnage or not more than 12 meters in length overall.

On-board Familiarization and Safety Training

The Master of a fishing vessel must make sure that all persons with an assigned function on your vessel receive on-board familiarization and safety training before they start to work on board.

8.0 PRE-DIVE MEETINGS

8.1 Pre-Dive Meeting & Toolbox Talks

Pre-Dive Meetings are considered essential to maintaining crew awareness of the hazards we face in our work. Supervisors are responsible for ensuring toolbox talks occur as required. The following guidelines will be observed:

- Crew reviews the scope of work for the day ahead and discusses the associated hazards and best practices.
- These discussions will be documented using a Dive Hazard Assessment (FLHA) found in the appendix.
- In addition to the above, a meeting will be conducted whenever significant changes to worksite conditions or work processes occur or are planned.
- All site visitors will be required to review and sign onto the day's FLHA, offering an opportunity to ask questions regarding the hazards associated with the work, and any they are likely to encounter.
- The FLHA will be completed and any outstanding issues/concerns will be brought to the attention of the dive supervisor.

8.1.1 Pre-Dive Meeting

Prior to a dive taking place, the Dive Supervisor will hold a pre-dive meeting with all workers involved. This meeting will include:

- Evaluation of hazards which may be encountered and the controls in place to protect divers.
- The depth and time limits of the dive.
- Location of other divers.
- Work and tasks to be completed.
- Specific recall signal.
- Enter water with sufficient air (i.e., do not enter with less than 1500 lb pressure).
- Leave bottom together, with minimum 500 lb pressure.
- Procedures to be followed in the event of an emergency.

The Dive Supervisor will ensure that all equipment required for the dive is in place prior to divers entering the water. For the duration of the dive the Dive Supervisor or qualified designate will remain within the dive area and will terminate the dive if conditions become unsafe.

8.1.2 Post-Dive Meeting

After the dive, the crew will hold a 'debriefing' where the team members have a chance to compare experiences and risks and note any improvements which can be made for future dives. Items for discussion can include:

- Outcome of the job.
- Methods to improve work.
- Risks encountered on the dives.
- Methods to reduce or eliminate risks.
- Physical condition of divers and rest of team.

- Divers with potential symptoms of a dive injury or a topside injury (minor or serious) should report their injury or concerns to the crew and supervisor immediately.
- Equipment condition (need for inspection or servicing).
- Additional equipment required for similar operations.

9.0 INCIDENT INVESTIGATION AND PREVENTION

The focus of investigating a past incident is to determine the root cause(s) and find ways of preventing future similar accidents. Information taken from an investigation can be used in the training of crew. If a crew is injured the skipper must be notified. The following sections provide basic guidance on the reporting and investigation of incidents that occur.

9.1 Definitions

Accident - an event or sequence of events that resulted in any injury, illness, or property damage.

Incident - includes an accident or other occurrence which resulted in or had the potential for causing an injury or occupational disease.

Near Miss - an event or sequence of events that had the potential to cause serious injury, ill-health or property damage.

9.2 Injury Prevention

Special precautions must be taken when diving before and after travel (by car or airplane) or after decompression sickness:

- When diving after travel, the diver should have adequate rest before undertaking any diving operations.
- When travelling after diving, minimum delay time should be observed according to the chart below. Altitude exposure after diving is a potent precipitator of decompression illness.
- After decompression illness, a diver must not be exposed to greater than 300 m altitude until cleared for travel to altitude by a medical practitioner with specialist training in underwater medicine.

Altitude (m)	Time after last dive (in hours)		
	Category of Dive (see legend)		
	1	2	3
0 – 150	nil	nil	2
150 – 300	nil	2	4
300 – 600	2	12	24
600 – 2400*	12	24	48
>2400	24	48	72

*Note: In pressurized aircraft, the altitude referred to is the effective altitude within the cabin. Commercial aircraft are usually pressurised to an effective cabin pressure of 2400m or less.

LEGEND:

Category 1

- Single dive to ≤50% of no-decompression limits, with no decompression or repetitive dives in previous few days.

Category 2

- Routine no-decompression diving and single decompression dives.

Category 3

- Multiple decompression dives.
- Extreme exposures.
- Omitted decompressions.
- Other adverse events.

The recommendations in this table are for routine diving operations. The risk of decompression illness varies substantially with differing dive profiles, and data regarding the risks associated with altitude exposure after diving is limited. The advice of a medical practitioner appropriately trained in underwater medicine is recommended where altitude exposure after diving is required.

9.2.1 Medic Alert

As per section 24 of the WorkSafeBC Occupational Health and Safety Regulations, all divers must wear, for 24 hours after a dive, a medical alert necklace or bracelet that indicates the possibility of decompression illness. These can be obtained from the Dive Supervisor.

9.3 Incident Reporting

1. Employees must report incidents immediately after they occur, or as soon as practicable.
2. Supervisors will inform management of any accident or high potential "near miss".
3. An accident report form will be completed by supervisors and management to determine the cause and any required future considerations.
4. All incidents involving injury or treatment by first aid shall be followed by the completion of the appropriate form by the supervisor and submitted to management.
5. All work-related injuries and illnesses shall be documented.
6. All incidents must be investigated.
7. Contributing factors and root causes must be documented.

General

1. All workers employed will:
   a. Immediately report to the dive supervisor anytime an incident occurs.
   b. Immediately report to the acting first aid attendant or to the nearest first aid facility anytime an injury occurs.
2. Injured employees who leave the vessel without reporting and/or completing required documentation will be considered absent from work and:
   a. Will not receive pay for any missed time;
   b. May be subject to disciplinary action;

   c. May have a formal objection filed with WorkSafeBC against any claims for compensation benefits.
3. The employer or representative will ensure all serious incidents that caused or had the potential to cause worker hospitalization or fatality are reported and handled in accordance with the Workers Compensation Act — Section 68.

9.4 Investigation Process

When to Investigate?

According to the Workers Compensation Act (69), employers are required to immediately investigate any incident that involves the following:

1. **Serious injury to or death of a crewmember.**
2. **A major structural failure or collapse.**
3. **A major release of a hazardous substance.**
4. **Fire or explosion with potential for serious injury.**
5. A diving incident, such as convulsions, impairment, decompression illness, lung over pressurization or when such incident was a possibility.
6. Minor injury or no injury but had potential for causing serious injury.
7. Injury requiring medical treatment beyond first aid.

Note: For the first four types of incidents, you must also notify WorkSafeBC immediately. Call toll-free 1.888.621.7233. After hours call 1.866.922.4357.

The Dive supervisor will complete the Incident Investigation Report; and if necessary complete the Employers Report of Injury or Occupational Disease (Form 7), and submit to WorkSafeBC within 72 hours. Section 72 of the Workers Compensation Act requires [The Company] to submit a full investigation report to WorkSafeBC within 30 days of a reportable incident.

   a. Reports may be submitted by fax to (604)276-3247 (Greater Vancouver), toll-free fax 1-866-.240-1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do NOT submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

10.0 APPENDICES

10.1 Glossary of Terms

A

Acclimation – physical processes of the body adjusting to the environment over a period of time.

Adverse health effect – an acute or chronic injury, acute or chronic disease, or death.

B

Bailout Bottle – means an independent breathing gas supply carried by the diver, of sufficient quantity to return the diver to the surface in the event of a malfunction of the primary breathing gas supply.

Biohazardous Material – pathogenic organisms that may cause disease in humans.

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.

C

Canister or cartridge – a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Cold Stress – response of the body to cold temperatures resulting from heat loss from a portion of a body such as feet, hands, limbs, or head.

Compressed gas – a substance which meets the criteria for WHMIS Class A compressed gas.

Confined Space (BC) – an area, other than an underground working, that meets all four of the following parts:

1. **L** – Large enough that workers could enter to perform work;
2. **E** – Enclosed or partially enclosed;
    a. And is 4 feet deep or greater;
3. **A** – Access/egress is limited which would complicate rescue in any of the four types of emergency response:
    a. First aid – i.e., cannot lay a worker down to provide CPR;
    b. Rescue – i.e., two workers would not be able to carry an injured worker out on a stretcher;
    c. Evacuation – i.e., quick exit from space of entire workforce;
    d. Other emergency response – i.e., access for firefighting would be difficult and restricted.
4. **N** – Not designed or intended for continuous human occupancy.

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.

Contractor – includes a contractor, subcontractor, utility worker, government agency or a service providing/assigning workers and/or services/equipment within the workplace.

Crewmember – for the purposes of sections 24.69 to 24.143, means any person who is working on a fishing vessel.

D

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.

F

Fatigue – the progressive decline in alertness and performance that results in sleep.

Fishing vessel – means any commercial vessel used in catching fish or collecting or transporting fish for landing.

Flammable gas – a substance which meets the criteria for WHMIS Class B Division 1 flammable gas, (a compressed gas with an upper flammable limit of 13% or less or with an explosive range of 12% or more).

H

Hazard – any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work.

Hazard information – information on the proper and safe use, storage and handling of a controlled product and includes information related to its toxicological properties.

Heat Stress – general name for several medical conditions such as heat exhaustion, heat cramps (or spasms) and heat stroke caused by working in hot areas.

L

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);

Live Boating – means the support of a surface supplied diver from a vessel under way.

M

Master – for the purposes of 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.

N

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.

O

Owner – for the purposes of sections 24.69 to 24.143, means the person who holds legal title to a fishing vessel.

P

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).

Preventive Maintenance (PM) – refers to systematic inspection, detection, and correction of minor failures or deterioration before they develop into major failure or repairs. PM includes inspection, tests, measurements, adjustments, and parts replacement, performed specifically to prevent faults from occurring.

R

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.

S

Scuba – means self-contained underwater breathing apparatus.

Sleep Debt – cumulative sleep loss or lost sleep over repeated days accumulates a sleep debt.

Surface Supply Diving – means supplying air or a mixture of gases to a diver through a hose from the surface.

U

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.

V

Violence – the attempted or actual exercise by a person, other than a worker, of any physical force so as to cause injury to a worker, and includes any threatening statement or behavior which gives a worker reasonable cause to believe that the worker is at risk of injury.

W

Worker – a person who has entered into or works under a contract of service or apprenticeship, written or oral, express or implied, whether by way of manual labor or otherwise. For the purposes of this program, that includes, workers of [The Company], as well as any sub-contractors onsite.

Working Alone – to work in circumstances where assistance would not be readily available to the worker in the case of an emergency such as if a crewmember fell overboard.

Workplace Violence – the attempted or actual exercise by a person, other than a worker, of any physical force so as to cause injury to a worker, and includes any threatening statement or behavior which gives a worker reasonable cause to believe that they is at risk of injury.

10.2 Defective Tool Record

Date:

Tool ID (be specific):	**Description:**
Hours:	**Tagged: Yes ☐ No ☐**
Description of Problem:	

Repairs Made:
Repaired by:

Completed by:
Tag removed by:
Item reintroduced to service (date/ time):

10.3 Due Diligence Checklist

This checklist is a guideline and is to be used to ensure that both [The Company] and their contractors are keeping up their due diligence. Following it will help employers determine if they have sufficient documentation of an effective OHS Program.

Workplace (specify):

The *standard* of Due Diligence
Taking all reasonable care to protect the well-being of all crew.

The *defense* of Due Diligence.
Showing that all reasonable precautions to comply were taken in the circumstances.

The *test* of Due Diligence
Documentation of an effective Occupational Health and Safety Program, this includes:

- A written OHS Program that has been implemented.
- An employer that takes steps to control or eliminate specific hazards.
- Written safe work procedures that are understood and followed by workers.
- Workers who are provided with adequate instruction, training, supervision, and discipline to work safely.

Part 1: Does the employer keep the following records or documents?	
☐ Worker orientation records.	☐ Records of worker/supervisor training showing the date, time, names of attendees and topics covered.
☐ Inspection reports and records of corrective action taken to solve problems.	☐ Incident/Accident investigation reports and records.
☐ Records of meetings and crew talks where safety issues are discussed.	☐ Supervisor's notes and logs of safety contacts with workers.
☐ Records of progressive discipline to enforce safety rules and written safe work procedures.	☐ Equipment logbooks and maintenance records.
☐ First aid records and medical certificates.	☐ Forms and checklists showing the employer requires workers to follow safe work procedures.
☐ Sampling and monitoring records of exposures to harmful substances.	☐ Emergency response plan and record of drills and any resulting improvements.

Part 2: Do the employers records and documents show an effective OH&S Program?	
Do the records and documents indicate that the employer/management:	
1. State and communicate a clear workplace OH&S policy?	Yes ☐ No ☐
2. Assign responsibility and resources for implementing OHS Program to identified person(s)?	Yes ☐ No ☐
3. Require contractors to conform to OH&S Regulations?	Yes ☐ No ☐
4. Ensure that records are maintained (See Part 1)?	Yes ☐ No ☐
5. Review accident/incident/injury/illness frequency/severity statistics trends over time?	Yes ☐ No ☐
6. Assign responsibility for identifying hazards and conducting risk assessments?	Yes ☐ No ☐
7. Implement appropriate controls (engineering/administrative/PPE) for identified hazards (e.g. lockout, confined space, falls from height, chemical hazards, MSI etc.)?	Yes ☐ No ☐
8. Implement a preventative maintenance schedule as required by manufacturers' and industry recommended standards?	Yes ☐ No ☐
9. Address Joint Health and Safety Committee/Representative recommendations?	Yes ☐ No ☐
10. Review OHS Program activities on a regular basis (e.g, yearly) and make improvements as needed?	Yes ☐ No ☐

Do records and documents indicate that supervisors:	
1. Receive training to perform their health and safety responsibilities?	Yes ☐ No ☐
2. Give crew talks and conduct safety meetings?	Yes ☐ No ☐
3. Participate in inspections?	Yes ☐ No ☐
4. Conduct incident/accident investigations?	Yes ☐ No ☐
5. Take action to correct reported hazards?	Yes ☐ No ☐
6. Conduct orientations for new/young workers?	Yes ☐ No ☐
7. Conduct on-the-job training?	Yes ☐ No ☐
8. Evaluate training to ensure it is effective?	Yes ☐ No ☐
9. Monitor work conditions and practices in areas where they have responsibility?	Yes ☐ No ☐
10. Correct employees who are not following rules and procedures?	Yes ☐ No ☐
11. Keep records of progressive discipline?	Yes ☐ No ☐
12. Have OHS considered as an element in their performance evaluation?	Yes ☐ No ☐
Do records and documents indicate that workers:	
1. Receive an orientation?	Yes ☐ No ☐
2. Receive specific job instruction?	Yes ☐ No ☐
3. Receive health and safety training (e.g., responsibilities, hazards, controls, procedures etc.)?	Yes ☐ No ☐
4. Demonstrate the skills/knowledge necessary to perform their job safely?	Yes ☐ No ☐
5. Report injuries and hazards?	Yes ☐ No ☐
6. Participate in inspections?	Yes ☐ No ☐
7. Participate in incident/accident investigations?	Yes ☐ No ☐
When dealing with disciplinary procedures for workers, supervisors and managers who don't follow safety rules or safe work procedures:	
1. Are there disciplinary procedures in place?	Yes ☐ No ☐
2. Are workers/supervisors/managers aware of them?	Yes ☐ No ☐
3. Are disciplinary procedures used effectively?	Yes ☐ No ☐
4. Are they monitored by the Joint Health and Safety Committee/Representative?	Yes ☐ No ☐
5. Are good records kept of progressive discipline used to enforce safety rules/procedures?	Yes ☐ No ☐

Checklist completed by:	Date:

Part 3: Employers Action Plan				
Item	Action Required (details)	Action Required By (Name)	Target Date	Completed
1	Enter details.	Enter name.	Enter Date.	☐
2				☐
3				☐
4				☐
5				☐
6				☐
7				☐

10.4 Emergency Contact Information

In the event of an emergency, the following may be notified.

	Name/Organization	Position	Phone Number	Radio / Notes
1	Canadian Coast Guard		Cellular Phone: *16	VHF Radio Channel 16 (156.8)
2	Rescue Coordination Center (JRCC)		Telephone: 1-800-567-5111 Cellular Phone: *311	
3	Emergency Health Services		911	
4	Divers Alert Network (DAN)		1-919-684-9111	
5	BC Hyperbaric Facilities (Recompression Chambers)	Vancouver General Hospital (VGH)	1-604-875-4111	Ask for a “Hyperbaric Referral”
		Fleet Diving Unit (CFB Esquimalt, Victoria)	1-250-363-2000	Base Operator

10.5 Emergency Response Plan

General:

Worksite:	Date:
Address:	
Manager:	Phone #:

Emergency Contact Information:

Service	Address/ Details	Phone
Ambulance/ Fire/ Police		911
WorkSafe BC		1-888-621-7233
BC Hazmat		1-250-656-3382
BC Ministry of Environment		250-751-3100
Nearest Hospital		
Nearest Medical Clinic		
First Aid Attendant	Name:	Phone:

Emergency Contacts:

Contact	Address/ Details	Phone

Key Locations:

	Location
Location of 1st aid equipment	
Location of fire extinguishers	
Evacuation Muster Station A	
Evacuation Muster Station B	
Other:	

10.6 First Aid Assessment Worksheet

Date: _____ **Prepared by:** _____

Name of workplace:		
Hazard rating on Assigned Hazard Rating List:	☐ Low ☐ Moderate ☐ High	
Are job functions, work processes, and tools typical of the industry? If not, describe:		☐ Yes ☐ No
Are the types of injuries that can occur typical of the industry? If not, describe:		☐ Yes ☐ No
Overall workplace hazard rating:		☐ L ☐ M ☐ H
Surface travel time to hospital:	☐ Greater than 20 minutes ☐ 20 minutes or less	
Total number of workers per shift: *(including dispatched workers and workers in lodgings)*		
Barriers to first aid:		
Assessment Results *(different shifts may require different first aid services)* Supplies/equipment/facilities required:		
Number and level of first aid attendants:		
Transportation needs:		

10.7 First Aid Report

WORK SAFE BC

Occupational First Aid
Patient Assessment

Date of illness/injury (yyyy-mm-dd)	Time of illness/injury AM PM	Date reported to first aid (yyyy-mm-dd)	Time reported to first aid AM PM
Time of arrival at first aid (walk in) AM PM	Time on scene (if applicable) AM PM	Employee's name	Date of birth (yyyy-mm-dd)
Employer's name	Employee's doctor	Contact person	

AVPU
- **A** – Alert
- **V** – Responds to voice
- **P** – Responds to pain
- **U** – Unresponsive

GCS

Eye opening response	Best verbal response	Best motor response
4 Spontaneously	**5** Orientated	**6** Obeys commands
3 To speech	**4** Confused	**5** Localizes pain
2 To pain	**3** Inappropriate words	**4** Withdraws from pain
1 No response	**2** Incomprehensible sounds	**3** Flexes to pain (decorticate)
	1 No response	**2** Extends to pain (decerebrate)
		1 No response

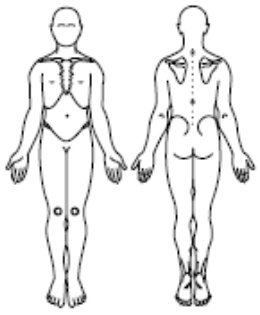
Chief complaint

P	R
p	S
Q	T
R	

AVPU (circle)	A V P U	A V P U	A V P U	A V P U
GCS LOC	Total E V M	Total E V M	Total E V M	Total E V M
Vital signs	Time	Time	Time	Time
Resp.				
SPO2				
Pulse				
Pupils = / +				
Skin				

Mechanism of injury/history of illness

Please mark injured or exposed areas



Physical findings

Changes in patient's condition (specify)

Allergies

Medications

Interventions
- ☐ Airway cleared ☐ Maintained ☐ OPA ☐ Suction
- ☐ Ventilated ☐ PKT mask ☐ BVM ☐ Control bleed
- ☐ Tourniquet applied (time) _____
- ☐ Oxygen applied (time _____ LPM _____

Definitive treatment
- ☐ Spinal motion restriction ☐ Immobilized ☐ Splinted
- ☐ Additional treatment (please specify)

Recommendations
- ☐ First aid followup ☐ RTW
- ☐ Medical aid

Transport
- ☐ ETV ☐ Industrial ambulance ☐ BC ambulance
- ☐ Air evacuation ☐ Other (please specify)

F.A.A. name	F.A.A. signature	OFA certification no.	OFA level ☐ 1 ☐ TE ☐ 2 ☐ 3
Name of witness (please print)		Employer's mailing address	
Employee's signature		City/town	Postal code

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10.8 Investigation Form

Please refer to the companion quick guide for assistance completing the investigation and this form.

1. Employer's information

Employer's name (legal name and trade name)		Operating location number	WorkSafeBC account number
Employer's head office address			
City		Province	Postal code
Employer's representative's name	Email address	Phone number (include area code)	

2. Injured persons

Last name	First name	Job title
a)		
b)		
c)		
d)		

3. Place, date, and time of incident

Location where incident occurred (street address or GPS coordinates)		
City (nearest)	Province	Postal code
Date of incident (yyyy-mm-dd)	Time of incident	☐ a.m. ☐ p.m.

4. Type of occurrence (select all that apply)

- ☐ Death of a worker
- ☐ Serious injury to a worker
- ☐ Major structural failure or collapse
- ☐ Major release of hazardous substance
- ☐ Blasting accident causing personal injury
- ☐ Dangerous incident involving explosives other than blasting incident
- ☐ Diving incident, as defined by regulation
- ☐ Incident of fire or explosion with potential for serious injury
- ☐ Minor injury or no injury but had potential for causing serious injury
- ☐ Injury requiring medical treatment beyond first aid

An incident investigation report is NOT required under the *Workers Compensation Act* if none of the above applies or if this incident is a vehicle accident occurring on a public street or highway.

5. Report type (select all that apply) If this is a revised version of a previous report, please check here ☐.

☐ Preliminary Investigation Report If requested only, provide a copy to WorkSafeBC.	☐ Interim Corrective Action Report	☐ Full Investigation Report **Must be provided** to WorkSafeBC within 30 days* Fax 1.866.240.1434	☐ Full Corrective Action Report
Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)	Report date (yyyy-mm-dd)
Officer's name		Date sent (yyyy-mm-dd)	

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6. Witnesses

Last name	First name	Job title
a)		
b)		
c)		

7. Other persons whose presence might be necessary for proper investigation

Last name	First name	Job title
a)		
b)		

8. Sequence of events that preceded the incident

Required in Preliminary Report. Update in Full Report if necessary. Describe events earlier that day or even in previous years that led up to the incident. Examples may include events such as training given or changes in equipment, procedures, or company management.

9. Unsafe conditions, acts, or procedures that significantly contributed to the incident

Required in all reports. Describe anything, or the absence of anything, that contributed to the hazard such as poor housekeeping or poor visibility, using equipment without guards, or the lack of safe work procedures.

10. Nature of the serious injury **(optional – complete only if there has been a serious injury)**

- ☐ Life threatening or resulting in loss of consciousness
- ☐ Major broken bones in head, spine, pelvis, arms, or legs
- ☐ Major crush injuries
- ☐ Major cut with severe bleeding
- ☐ Amputation of arm, leg, or large part of hand or foot
- ☐ Major penetrating injuries to eye, head, or body
- ☐ Severe (third-degree) burns
- ☐ Punctured lung or other serious respiratory condition
- ☐ Injury to internal organ or internal bleeding
- ☐ Injury likely to result in loss of sight, hearing, or touch
- ☐ Injury requiring CPR or other critical intervention
- ☐ Diving illness such as decompression sickness or near drowning
- ☐ Serious chemical or heat/cold stress exposure
- ☐ Other (specify)

11. Brief description of the incident

Required in Preliminary Report. Briefly, summarize the sequence of events, the unsafe factors, and the resulting injury, if any.

12. Corrective actions identified and taken to prevent recurrence of similar incidents

Action (Required in Preliminary Report and Interim Corrective Action Report. Update in Full Report, if necessary.)	**Action assigned to** (name and job title)	**Expected completion date** (yyyy-mm-dd)	**Completed date** (yyyy-mm-dd)
a)			
b)			
c)			
d)			
e)			

13. Explanation of blank areas on this Preliminary Report, if any

If there are blank areas, describe the circumstances beyond your control that explain this lack of information.

14. Persons who carried out or participated in the preliminary investigation

Representative	**Name**	**Job title**	**Signature** (optional)	**Date signed** (yyyy-mm-dd)
Employer representative				
Worker representative				
Other				
Other				

End of report

Completing all the sections above satisfies the requirements for a Preliminary Investigation Report and an Interim Corrective Action Report.

Note: If this was a simple investigation and **all needed corrective actions have been completed within 48 hours**, the Preliminary and Full Investigation portions of the report can be completed at the same time. If so, you can check both the Preliminary Investigation Report and the Full Investigation Report boxes in section 5 on page 1.

Copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

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15. Determination of causes of incident

Required in Full Report. Analyze the facts and circumstances of the incident to identify underlying factors that led to the incident. Underlying factors include factors that made the unsafe conditions, acts, or procedures in the Preliminary Report possible. Update items from section 9, if needed.

16. Full description of the incident

Required in Full Report. Use the brief description from the Preliminary Report and update it, if necessary.

17. Additional corrective actions necessary to prevent recurrence of similar incidents

Additional corrective action (Required in Full Report and Full Corrective Action Report.)	Action assigned to (name and job title)	Expected completion date (yyyy-mm-dd)	Completed date (yyyy-mm-dd)
a)			
b)			
c)			
d)			
e)			

18. Persons who carried out or participated in the full investigation

Representative	Name	Job title	Signature (optional)	Date signed (yyyy-mm-dd)
Employer representative				
Worker representative				
Other				
Other				

19. Other relevant workplace parties

Company name	Contact person	Contact number or email address
a)		
b)		

End of report

Completing all the sections above satisfies the requirements for a Full Investigation Report and a Full Corrective Action Report.

Employers are required to submit **full** investigation reports to WorkSafeBC **within 30 days* of the incident.** Reports may be submitted by fax to 604.276.3247 (Greater Vancouver), toll-free fax 1.866.240.1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do **NOT** submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

* Employers can request an extension from a WorkSafeBC officer, **if the full investigation cannot be completed within 30 days.**

Copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

10.9 Injury – Form 7 Employer Report

As an employer, the *Workers Compensation Act* requires you to submit this report **within three days** of an injury to one of your workers, even if you disagree with the claim. By submitting your report promptly, you avoid penalties and delays in the adjudication of the claim. Please report using one of the following options:

1. **Online — The quickest and easiest option**: The online screen application customizes questions to the worker's injury. You can save your report and update it later with new information. Once submitted, you can follow the status of the claim online. Go to **worksafebc.com** and select "Report injury or illness."
2. **Fillable PDF form**: Type in your details online, print the form, and submit it by **fax** or **mail**. Go to **worksafebc.com** and select "Report injury or illness."
3. **Paper form**: Clearly **print** details, sign the form, and submit it by **fax** or **mail**.
   Fax: 604.233.9777 in Greater Vancouver or **toll-free** within BC at **1.888.922.8807**
   Mail: WorkSafeBC, PO Box 4700 Stn Terminal, Vancouver BC V6B 1J1

RESET

Employer information

Employer's name (as registered with WorkSafeBC)				WorkSafeBC claim number (if known) Type of business
WorkSafeBC account number		Classification unit number		Operating location number
Employer address line 1 (mailing)		Employer contact last name		First name
Employer address line 2 (mailing)		Employer contact telephone (and area code)	Extension	Employer contact fax (and area code)
City	Province/state	Employer payroll contact last name		First name
Country (if not Canada)	Postal code/zip	Employer payroll contact telephone (and area code)	Extension	Employer payroll contact fax (and area code)

Worker information

Worker last name	First name	Middle initial	Gender ☐ M ☐ F
Date of birth (yyyy-mm-dd) - -	Home phone number (include area code)	Social insurance number	
Address line 1		Address line 2	
City	Province/state	Country (if not Canada)	Postal code/zip

1. What is the worker's occupation?	2. Has the worker been employed by this firm for less than 12 months? ☐ Yes ☐ No	3. If yes, start date (yyyy-mm-dd)

4. At the time of injury, was the worker (check all that apply)

☐ Permanent	☐ Apprentice	☐ Self-employed	☐ Casual
☐ Temporary	☐ Volunteer	☐ Principal/partner or relative of employer	☐ Other (specify)
☐ Full time	☐ Student	☐ Fisher	
☐ Part time	☐ New entrant to workforce	☐ Hired on a contract basis	

Incident information

5. Date of incident (yyyy-mm-dd) - -	Time of incident (hh:mm) ☐ am ☐ pm **OR**	6. Period of exposure resulting in occupational disease (yyyy-mm-dd) From To
7. Did worker report injury or exposure to employer? ☐ Yes ☐ No ▶	8. The injury or disease was first reported to employer on (yyyy-mm-dd)	(please check one) To: ☐ First aid ☐ Supervisor ☐ Office ☐ Other (specify)
9. Name of person reported to		
10. Describe how the incident happened	11. Describe the injury in detail (what part of the body was injured)	
	12. Side of body injured ☐ Left ☐ Right ☐ Both ☐ Not applicable	
13. Describe the work incident location (address, city, province) and where incident occurred (e.g. shop floor, lunchroom, parking lot)		
14. Did the injury(ies) or exposure result from a specific incident? ☐ Yes ☐ No		

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If faxing form, please complete this section and fax both sides of page. Missing pages may result in delays in processing.

Worker last name	First name	Middle initial	WorkSafeBC claim number (If known)

Social insurance number	Personal health number (CareCard)	Date of incident (yyyy-mm-dd)	Date of birth (yyyy-mm-dd)
		- -	- -

15. Contributing factors — select **at least one**, and as many as applicable

- ☐ Lifting ☐ lb ☐ kg
- ☐ Overexertion
- ☐ Repetitive (activity repeated over and over again)
- ☐ Slip or trip
- ☐ Twist
- ☐ Fall
- ☐ Struck
- ☐ Crush
- ☐ Sharp edge
- ☐ Fire or explosion
- ☐ Harmful substances in the work environment
- ☐ Animal bite
- ☐ Assault
- ☐ Motor vehicle accident
- ☐ Unsure/other (please explain below)

16. Were there any witnesses? ☐ Yes ☐ No	17. Did the incident occur in British Columbia? ☐ Yes ☐ No
18. Were the worker's actions at time of injury for the purpose of your business? ☐ Yes ☐ No	19. Did the incident occur on employer's premises or an authorized worksite? ☐ Yes ☐ No
20. Did the incident happen during the worker's normal shift? ☐ Yes ☐ No	21. Was the worker performing their regular duties at the time of the incident? ☐ Yes ☐ No
22. Did the worker receive first aid? ☐ Yes ☐ No Date (yyyy-mm-dd) ▶	If yes, please provide first aid attendant name (If known)
23. Did the worker go to hospital, clinic, or visit a physician or qualified practitioner? ☐ Yes ☐ No Date (yyyy-mm-dd) ▶	If yes, please provide provider name (If known)
If yes, please provide provider address (If known)	
24. Are you aware of any recent pain or disability in the area of the worker's reported injury? ☐ Yes ☐ No	
25. Do you have any objections to the claim being allowed? ☐ Yes ☐ No ▶	If yes, please explain

Wage information

26. Did the worker miss any time from work beyond the date of injury or exposure? ☐ Yes ☐ No

If **no work was missed** and **no change** to duties/pay, proceed to bottom of page to sign, date, and submit this report.
If **work was missed** or if duties/pay have been **modified**, please answer **all** questions on this form.

27. Provide the **base salary** amount for this employment position at the time of injury
$ ☐ Hourly ☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly

28. Does worker receive other amounts of compensation in addition to **base salary**? ☐ Yes ☐ No
Does worker receive vacation pay on every cheque? ☐ Yes ☐ No
If yes, vacation pay _____%

Please select check boxes for any of the following amounts worker receives in addition to **base salary** AND provide the amount for each:
- ☐ Tips and gratuities $_____ ☐ Room and board $_____
- ☐ Shift differential $_____ ☐ Other $_____
- ☐ Overtime $_____

29. If worker is disabled from work, will you continue to pay:
Base salary? ☐ Yes ☐ No
Other amounts of compensation in addition to **base salary**? ☐ Yes ☐ No
Will worker receive vacation pay on every cheque? ☐ Yes ☐ No
If yes, vacation pay _____%

Please select check boxes for any of the following amounts worker will continue to receive in addition to **base salary** AND provide the amount for each:
- ☐ Tips and gratuities $_____ ☐ Room and board $_____
- ☐ Shift differential $_____ ☐ Other $_____
- ☐ Overtime $_____

30. Provide the amount of **gross** earnings for the past 3 months or 12 weeks prior to the date of injury or exposure
$ ☐ 3 months ☐ 12 weeks

31. Does the worker have a fixed-shift rotation? ☐ Yes ☐ No

32. If no, please explain

33. If yes, show the normal work week by entering the paid hours

Sun	Mon	Tues	Wed	Thu	Fri	Sat

34. Did the worker continue to work past day of injury? ☐ Yes ☐ No	35. Last day worked (yyyy-mm-dd)	
36. Number of hours scheduled to work on last day worked	37. Number of hours worked on last day	38. Number of hours paid by employer on last day worked

If faxing form, please complete this section and fax both sides of page. Missing pages may result in delays in processing.

Worker last name	First name	Middle initial	WorkSafeBC claim number (if known)

Social insurance number	Personal health number (CareCard)	Date of incident (yyyy-mm-dd)	Date of birth (yyyy-mm-dd)
		- -	- -

Return-to-work information

39. Has the worker returned to work?
☐ Yes ☐ No

40. If **Yes**: Date (yyyy-mm-dd)
Since the return to work, have the worker's duties, hours of work, work schedule, and/or rate of pay changed? ☐ Yes ☐ No

41. If **No**: Do you have any modified or transitional duties available? ☐ Yes ☐ No Have the modified or transitional duties been offered to the worker? ▶ ☐ Yes ☐ No	42. If yes, please describe modified or transitional duties

Signature and report date

43. Employer signature	44. Employer title	45. Date of report (yyyy-mm-dd)

For assistance, please call our Claims Call Centre at 604.231.8888 or toll-free within Canada at 1.888.967.5377, M–F, 8:00 a.m. to 6:00 p.m.

Please note: If you have concerns with this claim, please contact the officer handling the claim at the WorkSafeBC office to make known your objections or you may submit a letter detailing your specific concerns. **Impartial advice on WorkSafeBC claims** — To ensure you have an opportunity to obtain impartial advice on WorkSafeBC claims matters, the BC legislature has provided impartial advisers. **Employers' Advisers** are available to provide independent advice or clarification on a WorkSafeBC claim related to your firm. For additional information on the Employers' Advisers, please refer to their website at www.labour.gov.bc.ca/eao/.

Lower Mainland
604.713.0303 (Richmond)
Toll-free within Canada 1.800.925.2233

Abbotsford, Kamloops, Kelowna, Nanaimo, Trail, Prince George, Victoria
Toll-free within Canada 1.800.925.2233

WorkSafeBC collects information on this form for the purposes of administering and enforcing the *Workers Compensation Act*. That Act, along with the *Freedom of Information and Protection of Privacy Act*, constitutes the authority to collect such information. To learn more about the collection of personal information, contact WorkSafeBC's freedom of information coordinator at PO Box 2310 Stn Terminal, Vancouver BC, V6B 3W5, or call 604.279.8171.

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10.10 Orientation Form

Crew Name: _____ Crew Position: _____

Vessel Name: _____ Supervisor: _____

Date Hired: _____ Date of Orientation: _____

Person providing orientation (name and position): _____

Topic	OHSR #	Initials (trainer)	Initials (worker)	Comments
1 Contact Information: **a** Supervisor: _____ Telephone #: _____ email: _____ **b** Vessel Owner: _____ Telephone #: _____ email: _____ **c** Vessel Master: _____ Telephone #: _____ email: _____	3.23(2)(a)			
2 Rights and responsibilities **a** General duties of employers, workers, and supervisors (Employers - WCA Sec 21).	3.23(2)(b)			
b Worker right to refuse unsafe work and procedure for doing so (Workers – WCA Sec 22): **i** requirements (OHSR 3.10); **ii** reasonable cause/undue hazard; **iii** process required by (OHSR 3.12).	3.23 (2)(b)			
c Worker responsibility to report hazards and procedure for doing so.	3.23 (2)(b)			
d Supervisors (WCA Sec 23).	3.23 (2)(b)			
3 Workplace health and safety rules: **a** General site rules. **b** Housekeeping rules and material storage. **c** Vessel discipline policy and process. **d** Location of toolbox meeting minutes and inspection records. **e** PFD, Life Jacket and Immersion Suit requirements. **f** Other (e.g. operating equipment safely).	3.23 (2) (c)			
4 Known hazards and how to deal with them: **a** Pinch Points **b** Squeeze	3.23 (2) (d)			

Topic	OHSR #	Initials (trainer)	Initials (worker)	Comments
c Decompression Illness **d** Falls from heights (fall protection requirements) **e** Cold Water Immersion **f** Equipment specific hazards **g** Other hazards: **h** _____ **i** _____ **j** _____ **k** _____ **l** _____				
5 Safe work procedures for carrying out tasks: **a** Review all procedures that apply to the job. **b** Review where all procedures are stored. **c** Engine Room Controls. **d** Deck equipment and rigging. **e** Standby Divers. **f** Person Overboard. **g** Missing Buddy. **h** Entangled Diver. **i** Other: _____ **j** _____	3.23 (2) (c)			
6 Procedures for working alone or in isolation: **a** Procedures and check in system required (OHSR 4.21).	3.23 (2) (e)			
7 Measures to reduce the risk of violence in the workplace and procedures for dealing with violent situations: **a** Definition (OHSR 4.27). **b** Instruction of policies and procedures (OHSR 4.30). **c** Advice to consult physician (OHSR 4.31).	3.23 (2) (f)			
8 Personal protective equipment (PPE) and safety equipment – what to use, when to use it, and where to find it: **a** Responsibility to provide (OHSR 8.21). **b** Selection, use and maintenance (OHSR 8.3).	3.23 (2) (g)			

Topic	OHSR #	Initials (trainer)	Initials (worker)	Comments
c Instruction to worker (OHSR 8.7). **d** Supervisor responsibilities (OHSR 8.9). **e** Worker responsibilities (OHSR 8.9). **f** Personal clothing (OHSR 8.10). **g** PFD / Immersion Suits (instruction on use). **h** Lift Rafts – deployment and boarding. **i** EPIRB's **j** Person Overboard Retrieval Apparatus.				
9 First aid: **a** First aid attendant name and contact information.	3.23 (2) (h)			
b Locations of first aid kits and eye wash facilities.				
c How to report an illness, injury, or other accident (including near misses).				
d Reporting requirements.				
e Company Procedures.				
10 Emergency Procedures: **a** Types of emergencies.	3.23 (2) (i)			
b Emergency procedures - locations of emergency exits and meeting points (OHSR 4.14).				
c Drills (OHSR 4.14), including: **i** Person Overboard **ii** Fire **iii** Abandon Ship **iv** Flooding or Damage Control **v** Calling for Help				
d Locations of fire extinguishers and fire alarms.				
e Fire Extinguishers – location and use.				
f What to do in an emergency situation.				
11 Instruction and demonstration (task or work process).	3.23 (2) (j)			
12 Where applicable, basic contents of the occupational health and safety program: **a** Policy statement (OHSR 3.3(a)). **b** Inspections (OHSR 3.3(b)). **c** Written instructions [OHSR 3.3(c)].				

Topic	OHSR #	Initials (trainer)	Initials (worker)	Comments
d Management meetings [OHSR 3.3(d)]. **e** Incident/accident investigations [OHSR 3.3(e)]. **f** Record and statistics [OHSR 3.3(f)]. **g** Instruction and supervision [OHSR 3.3(g)].				
13 Hazardous materials and WHMIS. **a** Worker education (OHSR 5.6). **b** Worker training (OHSR 5.7).	3.23 (2) (l)			
c What hazardous materials are in the workplace?				
d Purpose and significance of hazard information on product labels.				
e Location, purpose and significance of safety data sheets (SDSs).				
f How to handle, use, store and dispose of hazardous materials safely.				
g Procedures for an emergency involving hazardous materials, including clean-up of spills.				
14 Where applicable, contact information for the occupational health and safety committee or the worker health and safety representative.	3.23 (2)(m)			
15 Disciplinary Program.				
16 Additional orientation and training must be provided to a young/new worker if workplace observation reveals the need and/or if requested by the young or new worker.	3.24 (a&b)			
Notes: An employer must keep records of all orientation and training provided under OHSR sections 3.23 and 3.24 (3.25).				

Other things for consideration:

☐ Valid Drivers License / Class	☐ Safety Rep:
☐ Location of Washrooms	☐ Radio ID # Emergency use
☐ Smoking Areas	☐ Allergies / Medical Conditions
☐ Standard Work Procedures	☐

Safety and Training

☐ Reporting Hazards	☐ Reporting Injuries and Accidents

☐ How to get First Aid and Location	☐ WHIMS & SDS Location / Use
☐ Fire Prevention	☐ Emergency Exits / Evacuations

Safety & Training Rep Signature

Employee's Signature

Date

Dive Supervisors Signature

10.11 Toolbox Talk Meeting Record

Project: _____ Address: _____

Date: _____ Time: _____

Supervisor: _____

(Name – Print) (Signature)

Topics Discussed:

Attendance Record:			
Name: (Please Print)		Signature:	Company:
1			
2			
3			
4			

Project: _____ Address: _____

Date: _____ Time: _____

Supervisor: _____

(Name – Print) (Signature)

Topics Discussed:

Attendance Record:			
Name: (Please Print)		Signature:	Company:
1			
2			
3			
4			