

# CODE OF PRACTICE

## FOR THE

## TASMANIAN ABALONE INDUSTRY

DECEMBER 2002

#### WHAT IS A CODE OF PRACTICE?

The term 'Code of Practice' has a particular meaning under the Tasmanian *Workplace Health and Safety Act* 1995 (the Act). In particular, Section 22 (2) states:

"A code of practice may consist of any code, standard, rule, specification, or provision relating to workplace health and safety formulated, prepared or adopted by the Director and may apply, incorporate or refer to any document formulated or published by any body or authority as in force at the time the code of practice is approved or as amended, formulated or published from time to time."

Other codes of practice, such as the codes developed by the National Occupational Health and Safety Commission (NOHSC) or Standards Australia, voluntary codes agreed by industry, or codes adopted by other states or countries, do not come within the meaning of the term used in the Act unless called up as an approved code of practice. Section 22 (1) of the Act provides for Codes of Practice to be approved by the Minister for the purpose of providing practical guidance to employees, employers and any other persons on whom a duty of care is imposed under the Act.

Compliance with the provisions of a code approved by the Minister constitutes compliance with the provisions of the Act or a regulation to which the code is giving practical guidance. The provisions in a code are, however, not mandatory. That is, a person may choose to comply with the relevant provision of the Act or regulation in some other way, provided that the alternative method used also fulfils the requirements of the Act or regulations.

A Code of Practice approved by the Minister comes into effect when notice of approval is published in the Government Gazette. A Code of Practice does not have the same legal force as Regulations. Contravention of, or failure to comply with, Regulations made under the Act, is an offence under the Act. Failure to observe a provision of an approved Code of Practice is not, in itself, a breach of the Act, however, an approved code of practice is admissible as evidence in legal proceedings in which it is alleged that a person with a duty of care under the Act has failed to comply with the Act. A court may hold that a failure to comply with an approved Code of Practice constitutes proof of a breach of the duty of care responsibility, unless it can be shown that the actions taken were at least equal to, or better than, the approved code of practice.

An Inspector can cite an approved Code of Practice as a means of remedying non-compliance when issuing an Improvement Notice or Prohibition Notice under the Act.

#### LANGUAGE IN A CODE OF PRACTICE

In a Code of Practice, certain words are used that determine the level of choice available to the user.

To assist in clarifying this specific word usage, the following definitions and examples are provided:

#### MUST

Where a clause contains the word **must**, then the requirement is contained within the *Workplace Health and Safety Act 1995* (the Act) or the **Workplace Health and Safety Regulations 1998.** This means that you have no other option than to do what the clause requires.

#### Example:

Cylinders used for compressed air must be tested in accordance with the relevant State requirements or legislation.

#### **IS TO/ARE TO**

If a clause says a person **is to**, or persons **are to**, do something, then you are being instructed to do it, but in these situations you have a choice. This situation is unique to codes of practice approved under s.22 of the Act.

Codes provide flexibility in this instance to allow practical and innovative solutions to be developed in the workplace. When an alternative solution is developed to that contained in the code, you will need to conduct a risk assessment to determine if what you have done is *equal to or better than* the instruction, and you could be required to prove it.

#### Example:

Every SSBA diver is to be tended by a diver's tender.

#### SHOULD

When **should** is used in a clause, you are being advised to do something but it is up to you whether you do it or not. If you decide not to adopt the advice, then you need to have conducted a risk assessment to support your decision.

#### Example:

Records of equipment maintenance and testing should be kept.

Some clauses in a code of practice refer to other documents, such as Australian Standards. If this occurs, then the application of the specific provision of the Standard is determined by the words used in the particular referencing clause of the code of practice.

- If the code says you **must** comply with the Standard, then you interpret the standard just like the code. 'Must', 'is to' and 'should' have exactly the meanings shown above.
- If the code requires that the Standard **is to** be complied with, then a reference in the Standard to **must** is to be read as **is to** in the Standard.
- If the code says a Standard should be complied with or used as guidance, then you may treat every provision contained in the Standard as a **should** provision.

## **IMMUNITY FROM LIABILITY**

The Tasmanian Abalone Industry Code of Practice has been developed by the Tasmanian Abalone Council Ltd to foster safe working practices in the industry. The information contained in the Code is given in good faith and is based on the knowledge and experience in the Tasmanian Abalone Industry.

"The Tasmanian Abalone Council Ltd shall not be liable for any loss, damages or other claim in respect of or arising from any death of or injury to or damage to property of any person which may occur while any person is diving in reliance upon this Tasmanian Abalone Industry Code of Practice and it is expressly stated and brought to the reader's attention:

- (a) This Tasmanian Abalone Industry Code of Practice is not and is not intended to be a substitute for nor to abrogate diminish or otherwise affect the responsibility of the employer of any diver to provide a safe system of work and their other responsibilities as an employer, whether pursuant to the Workplace Health and Safety Act 1995, the Living Marine Resources Management Act 1995 or any other Act (whether Federal or State) or at common law; and
- (b) Each diver is assumed in the context of this Standard to be voluntarily performing activities for which he/she assumes all risks, consequences and potential."

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## 1 SCOPE

- 1.1 This Code applies to diving operations using Surface Supplied Breathing Apparatus within the Tasmanian Abalone Industry. The Code will provide the basis for uniformity of practice throughout the Tasmanian Abalone Industry. This Code does not apply to diving deeper than 30 metres, to mixed gas diving or to recreational diving.
- 1.2 This Code contains diving guidelines and provides information on equipment and the compressed air supply to be used. Also included are Appendices on the following subject matters:

Appendix A:	Medical Practitioners with Training in Diving Medicine and Specialist Medical Advice
Appendix B:	Approved Decompression Tables and Repetitive Dive Schedules and Dive Computer Guidelines
Appendix C:	Standard for SSBA
Appendix D:	Decompression Sickness - Procedures
Appendix E:	Diving Hose Signals
Appendix F:	Underwater Communications Signals
Appendix G:	Minimum Qualifications for New Entrant Divers
Appendix H:	First Aid for Diving
Appendix I:	First Aid Kit for Diving
Appendix J:	Log Book
Appendix K:	Sending and Receiving Abalone Net Bags by Diver and Tender

#### **2 DEFINITIONS**

- 2.1 *Abalone Diver*: A person who is at least 18 years of age and who is licensed to dive commercially for abalone in accordance with the *Living Marine Resources Management Act, 1995*.
- 2.2 *Abalone Diving*: Diving operations carried out as part of a licensed Abalone fishing operation under the Living Marine Resources Management Act, 1995.
- 2.3 Air Supply
  Primary Air supplied through the SSBA, as defined in 2.20
  Secondary Air supplied through the SSBA, as defined in 2.20
  Emergency The air supply which a diver utilised in the event of a primary/secondary air supply failure. The cylinder capacity must be capable of supplying the diver with sufficient air to reach the surface from the working depth.
- 2.4 *Bail Out Cylinder* See *Air Supply - Emergency* as defined in 2.3.
- 2.5 *Competent Abalone Diver:* A person who has been engaged as an abalone diver for at least 100 hours and has passed the Abalone Industry Assessment. It is also a person who has not been engaged as an abalone diver for at least 100 hours but who has passed the Abalone Industry Training Course.
- 2.6 *Decompression Schedule:* Schedule of prescribed routine ascent rates, and of stoppages at specific depths to be followed by diver(s) during ascent to the surface, after being subjected to pressure.
- 2.7 *Diver's Tender*: A person responsible for the diver(s) and controlling boat operations while a diver(s) is in the water duties and responsibilities are as outlined in Section 3 hereunder.
- 2.8 *Diving Hose:* The hose connecting the diver to the surface supply of compressed air.
- 2.9 *Diving Operation:* One or more dives that are related by purpose, place or time to form a series.

#### **DEFINITIONS (Cont.)**

- 2.10 *Diving Partner* : A member of a diving team who is licensed as an abalone diver in accordance with *the Living Marine Resources Management Act, 1995.*
- 2.11 *Diving Team:* Divers operating together in or under water.
- 2.12 *Float Line:* A buoyant line, of not less than 8mm diameter attached to a float on the surface.
- 2.13 *Is to/are to*: If a clause says a person **is to** or persons **are to** do something, then you are instructed to do so, but in these situations you have a choice. However, the choice made must be equal to or better than that stated in the Code.
- 2.14 *Mother Vessel:* A mother vessel which carries one or more tender vessels which are used for abalone diving.
- 2.15 *Must:* Where a clause contains the word **must** then the requirement is contained within the *Workplace Health & Safety Act 1995.* There is no other option than to comply.
- 2.16 *Quick Release:* Able to be immediately released from the secured position by a single operation of one hand but which is designed to minimise the risk of accidental release.
- 2.17 *Recompression Chamber:* A chamber situated at the surface in which persons may be subjected to pressures equivalent to or greater than those experienced when underwater.
- 2.18 *Reserve Air Supply:* That quantity of air that will enable a diver to safely return to the surface.
- 2.19 *Should:* When should is used in a clause, you are being advised to do something, but it is up to you whether you do it or not.
- 2.20 *SSBA:* (Surface Supplied Breathing Apparatus). *Primary Air* - A low pressure compressor with air reservoir and set of filters, or alternatively, an air bank/storage system and adjustable regulator supplying compressed air to a diver through a diver's hose. (see Appendix C). *Secondary Air* - A system of air delivery contained within the SSBA primary air system.

#### **3 DIVER'S TENDER**

- 3.1 A diver's tender must be present on every boat from which diving is undertaken.
- 3.2 The diver's tender must be responsible to the diver in relation to diving operations.
- 3.3 The diver's tender must be familiar with the procedures used in diving, in first aid (refer Appendix H) and in diving hand and hose signals.
- 3.4 The diver's tender must maintain a vigil during a dive, for the diver surfacing at a distance from the boat and constantly monitor conditions at the dive site.
- 3.5 The diver's tender is to:
  - (a) have a working knowledge of diving, and of the system of hose and hand signals set out in Appendix E and Appendix F.
  - (b) while tending a diving hose ensure that it is kept free from propellers by positioning the boat appropriately.
  - (c) while tending a diving hose maintain the ability to communicate with the diver by means of the hose.
  - (d) give all necessary attention to tending the diver while he/she is in the water and surfacing at a distance from the boat.
  - (e) if a compressor is in use, operate same and ensure that all equipment necessary to provide an adequate supply of safe breathing-quality air to the diver is in good working order.
  - (f) hold a limited coxswain certificate or higher qualification.
  - (g) hold a St Johns or Red Cross diving first aid certificate which includes an oxygen therapy course.

### 4 EMERGENCY SERVICES

- 4.1 The diver and tender must identify the location of the nearest emergency medical and hyperbaric facility and are to make appropriate plans for notification as soon as practicable of an accident and transport of an injured person to such facility.
- 4.2 The diver must ensure that at or close to every dive-site there are adequate means of prompt communication day or night in the event of an emergency.
- 4.3 The diver emergency service phone contact number should be prominently displayed by the vessel's radio. It should be known by all persons working or living with an abalone diver. The number is 000 or alternatively 1800 088 200 or appropriate HF,VHF or UHF emergency channel.

### **5 DECOMPRESSION SCHEDULES**

- 5.1 Diving including multiple dives is to be carried out in accordance with one of the recognised decompression tables in Appendix B, Part 1 or as per 5.3 below.
- 5.2 No dive must be planned or undertaken for a period of time that requires a decompression schedule except in accordance with Section 8.
- 5.3 Divers who use a dive computer are to follow the guidelines in Appendix B, Part 2.

#### 6 SSBA DIVING

- 6.1 No dive on SSBA is to be carried out at depths below 30m.
- 6.2 Every SSBA diver is to be tended by a diver's tender (see Section 3).
- 6.3 The diver should include a safety decompression stop between 3-6 metres for 3-5 minutes on the last dive of the day as an added margin of safety.
- 6.4 Due consideration should be given to reduction in atmospheric pressure with altitude after diving if intending to travel, eg flying or travelling by car through "hilly" terrain.

### 7 BOATS

- 7.1 Every boat from which diving operations are conducted:
  - (a) must be safe and suitable for the purpose.
  - (b) must have suitable means appropriate to the type of boat, by which a diver can enter, leave or be removed from the water;
  - (c) must display a replica of the International Code Flag A.
  - (d) must comply with the requirements of Marine and Safety Tasmania (MAST).

#### 8 **DECOMPRESSION DIVING**

Extreme care should be taken when undertaking decompression diving as the following provisions apply:

- 8.1 No dive is to be carried out for a period of time that requires a decompression schedule unless:
  - (a) each diver carries an independent reserve air supply equivalent to the amount required for the decompression plus at least 25% extra as a safety margin.
  - (b) Oxygen is carried on the vessel.
- 8.2 Each member of the diving team must know the capabilities and limitations of the diving equipment he/she uses. The diver must select the type of equipment to be used according to the conditions and the dive plan. Equipment must not be altered, modified, or changed in any way that might impair its safe and efficient operation.

#### 9 MAINTENANCE

- 9.1 All diving equipment, including cylinders, regulators and all accessories necessary for the safe conduct of the diving operation is to be:
  - (a) of suitable design, sound construction, adequate strength, free from patent defect, and maintained in a condition that will ensure its continued operation for the purposes and depths for which it was originally designed or subsequently used; and
  - (b) examined, tested, overhauled and repaired in accordance with the manufacturer's recommended procedures.
- 9.2 Records of equipment maintenance and testing should be kept. (see Appendix J)

## 10 CHECKING OF GAUGES AND METERING EQUIPMENT

- 10.1 Regulators, gauges and metering equipment are to be serviced on a regular basis or at a minimum annually or whenever a discrepancy is indicated.
- 10.2 Gauges and metering equipment are to be checked for accuracy 6 months after each servicing. Any malfunction must be rectified without delay.
- 10.3 If gauges and metering equipment are removed from service due to defects, such equipment are to be clearly marked as having a malfunction.

## 11 COMPRESSORS AND COMPRESSED AIR SYSTEM REQUIREMENTS

- 11.1 Air Compressors, Air Reservoirs, Diving hoses, fixtures and fittings are to meet the requirements of Appendix C.
- 11.2 Cylinders used for compressed air must be tested in accordance with the relevant State requirements or legislation.

## **12 DIVING EQUIPMENT**

- 12.1 The diver's equipment must include:
  - (a) face mask;
  - (b) swimming fins;
  - (c) suitable knife;
  - (d) weight belt or jacket, with quick release closures;
  - (e) wetsuit protective clothing appropriate for the conditions of work and temperature of the water;
  - (f) diver's watch with elapsed time indicator; and
  - (g) diver's depth gauge which should incorporate a maximum depth indicator.

The diver's equipment should also include:

- (h) except as for (i) it is recommended that bail out cylinder is included for depths greater than 6 metres;
- (i) a bail-out cylinder is to be used for depths greater than 15 metres and it should be fitted with a contents gauge;
- (j) an appropriate oxygen delivery system for all mother vessels and all dives greater than 15 metres;
- (k) dive computer (optional); and
- (l) Bail Out Cylinder optional for less than 15 metres, must be fitted with a contents gauge.

## **13 MEDICAL EQUIPMENT**

- 13.1 A diver's first aid kit conforming with Appendix I is to be available.
- 13.2 It is advisable that oxygen should be available at every dive operation. However, an oxygen delivery system must be provided at every dive site deeper than 15 metres. The system must be capable of providing an inspired oxygen concentration of 100% to a patient who is either breathing spontaneously or requiring artificial ventilation. Sufficient oxygen should be provided to supply the delivery system, taking into account the location of the dive site and access to medical facilities.

All mother vessels are to carry oxygen equipment.

NB Oxygen is highly dangerous especially when stored near hydro-carbons, eg petrol, petrol vapour, oil, grease. Extreme care must be taken to ensure that there is no leakage of oxygen.

#### 14 CERTIFICATION BY MEDICAL PRACTITIONER

14.1 A diver must not enter the abalone industry unless that person has been examined and certified as fit for diving by a medical practitioner as per the Diving Medical required by the Department of Primary Industries, Water and Environment. This certification must be done on an annual basis.

#### **15 FITNESS TO DIVE**

- 15.1 Every diver involved in a diving operation must ensure that he/she is fit to dive. Fitness is maintained by exercise and regular diving. Any noticeable variation in normal feeling of health and fitness must be promptly reported to a medical practitioner if the variation persists.
- 15.2 Diving is not to be undertaken by a diver with a cold or influenza or within 8 hours of consuming intoxicants, or if under the influence of any drugs that may impair his/her mental or physical capacities.

## **APPENDIX A**

#### MEDICAL PRACTITIONERS WITH TRAINING IN DIVE MEDICINE

A list of medical practitioners with training in diving medicine is maintained by the South Pacific Underwater Medical Society and is published periodically in their journal.

Contact:	The Secretary SPUMS C/- Australian College of Occupational Medicine PO Box 2090 ST KILDA WEST Vic 3182
DES/DAN =	Diver Emergency Service/Diver Alert Network Phone 1800 088 200

### **APPENDIX B - Part 1**

#### INTERNATIONALLY RECOGNISED DECOMPRESSION TABLES

Recognised decompression tables:

- A. Defence and Civil Institute of Environmental Medicine (DCIEM) Canada.
- B. Royal Australian Navy
- C. Royal Navy
- D. United States Navy including repetitive dive procedures

#### **APPENDIX B - Part 2**

#### **DIVE COMPUTER (D.C.) GUIDELINES**

- (a) The nature of diving is often multi level diving. The dive computer therefore is a useful tool for the diver to maximise his dive time because it is constantly updating the theoretical nitrogen levels in the body based on actual depth and time at the various depths. This system is in contrast to the dive tables which are based on a maximum depth and time for the whole dive.
- (b) The diver must be familiar with the operation and symbology used in the D.C. and must remain within the limits or parameters applicable to the D.C. model being used.
- (c) The diver is to use the same D.C. for multi dive/day dives as some D.C.'s have long, 24 hours plus, out-gas periods for the "slower tissue" compartments.
- (d) The diver is to ascend at the rate specified for the D.C. model being used as this ascent rate is often part of the decompression calculations.
- (e) The diver is to dive on the conservative side of the limits set by the D.C. to allow for other factors that could predispose a diver to decompression sickness (D.C.S.).
- (f) The diver is to not turn the D.C. off at the end of a days diving if the out-gassing memory is lost by doing so. This is to allow any residual nitrogen to be calculated into the following days diving. *Note:* It is recommended that only D.C.'s that are self activating be used in this industry.
- (g) The diver is to ensure that he turns the D.C. on prior to entering the water if appropriate for that model D.C. is some D.C.'s require time to run through its automatic start up program and sense the atmospheric pressure prior to descending.

- (h) The diver is to plan his dive so that the deepest part of the dive is made first. In multi dive days the deepest dive should be made first.
- (i) If the D.C. fails during a dive the diver is to ascend slowly, at the recommended rate, to the surface.
  - (a) If the dive/dives have been square profiles and been logged after each dive, the diver may transpose the profiles to a "table" based system and continue the dive day with a margin of conservatism.
  - (b) If the dive/dives have been multi level profiles then the diver is to cease diving for that day.
- (j) The diver is to include a decompression stop between 3 to 6 metres for 3 to 5 minutes on the last dive of the day as an added margin of safety.
- (k) The diver should not fly after diving until the D.C. indicates it is theoretically safe, though it is recommended that 24 hours be allowed prior to flying. Due consideration should be given to reduction in atmospheric pressure with altitude after diving if intending to travel, eg flying or travelling by car through "hilly" terrain.
- (1) The diver should log the details of each dive including surface interval after each dive. This then acts as a reference if the dive computer fails during a dive day.
- (m) The following rules should be observed by the diver when using a dive computer:
  - (i) A dive should be planned with the deepest part of the dive first and the same principle applied to a multidive day, ie 1st dive deepest.
  - (ii) A dive should not have repeated ascents and descents (ie taking shell bags to the surface when full).
  - (iii) If a dive goes into decompression time the subsequent surface interval is not to be less than 2 hours.
- (n) It is recommended that quarterly, the diver take two dive computers, that are completely out-gassed, ie not been used for 48 hours, one being his own, to compare the depths and limits shown on his D.C. This will show up any discrepancies and indicate if the D.C.'s need testing.

## APPENDIX C SURFACE SUPPLIED BREATHING APPARATUS (SSBA)

SSBA for use in the abalone industry is to be capable of delivering air meeting the following quality specifications:

- 1. Have no objectionable or nauseous odour.
- 2. Contain no less than 20% and not more than 22% by volume of oxygen.
- 3. Contain no more than 11mg per cubic metre of carbon monoxide at 15°C and 100kPa (10ppm by volume)
- 4. Contain no more than 900mg per cubic metre of carbon dioxide at 15°C and 100kPa (480ppm by volume)
- 5. Contain no more than 100mg per cubic metre of water at 15°C and 100kPa when sampled from a cylinder filled to a pressure of at least 12MPa (130ppm by volume)
- 6. Contain no more than 1mg of oil per cubic metre of air at 15°C and 100kPa when sampled from a cylinder filled to a pressure of at least 12MPa.
- 7. Where supplied from a compressor, the purity should be tested every six months of use.

NB: Above figures need to be verified/altered to suit low pressure systems.

#### The compressor is to have fitted:

- (a) a low pressure contents gauge;
- (b) a non-return valve fitted between the compressor air output and air receiver to be located as close as practicable to the air receiver;
- (c) suitable air filters/dryers to achieve the following standard of air quality; and
- (d) a reservoir fitted with an automatic pressure relief valve. In addition, a manually operated purge valve shall be also fitted to the air reservoir to facilitate the expulsion of any moisture building up. The purge valve should be fitted at the lowest possible point of the reservoir.

If using a compressor as your primary air supply, a secondary air supply is available via that compressor frame and/or reservoir. This facility is to have a contents gauge if the diver is working at a depth of over 15 metres unless he carries an emergency bail out cylinder.

The secondary air supply is to enable the diver to be brought back to the surface taking into account any decompression schedule required.

#### NOTE:

- 1. The compressor is to be capable of maintaining a minimum pressure of 700kpa (100psi) or enough pressure to supply adequate air relative to the depth.
- 2. The positioning of the compressor air intake is to be such as to prevent exhaust gases from the motor being drawn into the air supply. The air intake pipe or hose must be of sufficient internal diameter to prevent intake volumetric restriction. (Refer to Appendix K advisory notes.)
- 3. Oils used should be as recommended by manufacturers for diving use.
- 4. The gauges and valves must be arranged so that they can be easily and rapidly observed and operated.

#### Storage cylinder as primary or secondary air supply.

When a storage cylinder(s) at the surface provides the primary or secondary air supply to divers through a first stage regulator and hose, the following requirements apply:

- (a) cylinders must be tested and certified in accordance with the relevant State requirements/legislation;
- (b) the cylinder pressure is to be reduced by a first stage regulator;
- (c) in the case of a secondary air supply, an on-off one way valve is to be fitted to by-pass the primary cylinder; and
- (d) the capacity of the air cylinder is not to be less than 2000 litres (70 cu ft).

#### **SSBA Hose and Equipment**

All breathing systems are to include a non-return valve fitted adjacent to the demand valve.

The hose fittings are to be made of non corrosive material and must be of a quick release design but should incorporate a safety lock to prevent accidental disconnection.

The diver is to wear a harness to secure the SSBA hose to him/her.

The SSBA hose is to comply with the following specifications:

Burst Pressure
Longitudinal load
Minimum internal bore diameter

1.7mpa (250psi) 220n (50lot) 8mm (5/16")

## APPENDIX D DECOMPRESSION SICKNESS

#### General:

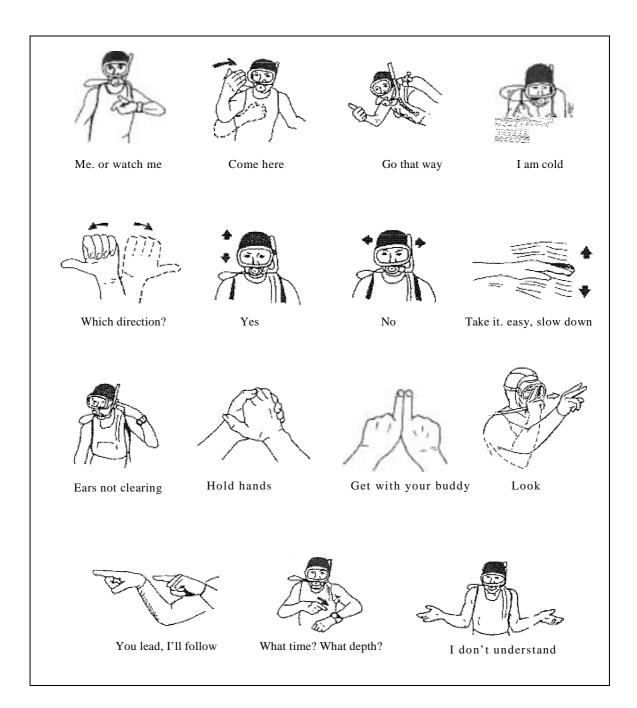
If the diver surfaces from a dive showing signs of decompression sickness, the following action should be taken without delay: First Aid is to be administered and then therapeutic treatment is to be sought at the nearest Hyperbaric Unit.

## APPENDIX E DIVING HOSE SIGNALS

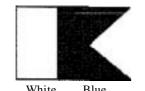
	Tender to Diver	Diver to Tender
1 pull	Are you all right?	I am all right
2 pulls	Go down!	Give me slack!
3 pulls	Stand-by to come up!	Take in my slack!
4 pulls	Come up!	Haul me up!

## APPENDIX F UNDERWATER COMMUNICATION SIGNALS

The diver must be capable of demonstrating the following minimum set of underwater signals as illustrated on the following pages







White Blue International Code Flag "A" Must be displayed by all vessels operating in international waters. Flag A means that the maneuverability of the vessel is restricted. "My maneuverability is restricted because I have a diver down; keep well clear at low speed."

## APPENDIX G MINIMUM QUALIFICATIONS FOR DIVING

- (a) Existing divers with 100 hours or more of logged diving experience are, under the Code of Practice, to pass the Abalone Industry Assessment to be accredited as a competent Abalone Diver.
- (b) New divers are to undergo and pass the Abalone Industry Training Course.

## APPENDIX H FIRST AID FOR DIVING

The diver's tender must be able to recognise the symptoms of and be able to provide first aid treatment for the following:

Bleeding, shock, asphyxia, cardiac and/or pulmonary arrest, hypothermia, air embolism and decompression sickness.

## APPENDIX I FIRST AID KIT

- Oxygen, a size D or larger cylinder. (for depths greater than 15 metres and for mother vessels). The size of the cylinder(s) should be of sufficient capacity to take into account the location of the dive(s) site.
- Fluids for treatment of D.C.S. (2 litres or more of water, fruit juice, lucozade etc.)
- Vinegar large bottle for treating nematocyst stings.
- Local anaesthetic ointment for pain relief from stings.
- Topical antibiotic ointment or Topical "Betadine" (iodine) paint - for coral cuts/grazes in order to prevent or treat infection.
- Ear drops for external ear infections
- Sea sickness tablets
- Paracetamol, codeine, aspirin
- Systemic decongestants for relief from congestion
- Topical decongestants used as above
- Eye wash/eye glass to remove foreign body from eyes
- Magnesium sulphate, glycerin paste for removing sea urchin spines and splinters
- Three elastic bandages 10cm x 150cm long as pressure bandages for blue ringed octopus, sea snake and cone shell injuries
- Pressure bandages/pads to control severe bleeding
- Swabs, crepe bandages, adhesive plaster, "bandaids"
- Scissors, tweezers/forceps, sharp knife, needle
- Blankets, heat packs, cold packs
- Pen and paper for recording details of first aid.

## APPENDIX J LOG BOOK

Logs must be completed for all dive operations. The diver shall be responsible for ensuring that logs are completed correctly and signed.

At all times the log entries are to be current to the last day's diving and include the following details:

Dive details Date of dive Start time of dive Bottom time (time from start of descent to beginning of ascent) Decompression dive time and depths Surface interval The time from actual exit from the water to the start of the next descent.

## APPENDIX K SENDING AND RECEIVING ABALONE NET BAGS BY DIVER AND TENDER

Apart from intended exit from the water, a diver should not accompany abalone net bags to the surface. Similarly, when requiring an abalone net bag, the diver should not go to the surface to get one.

The sending and receiving of abalone net bags should be carried out by one of the following two methods:

1. Bags are sent and received by being attached to a rope with a weight and suitable clip.

OR

2. The bag should be sent down to the diver by the tender placing a suitable weight inside the parachute and preventing the weight from falling out by use of velcro fastening on parachute.

The diver should send the bag up to the tender by inflating the parachute.

#### Lifting Abalone Net Bag into Boat

Lifting of bags must be done in accordance with the National Standard for Manual Handling (1990) published by the National Occupational Health and Safety Commission.

The size and subsequent weight of bags should be kept at a practical minimum. Lifting aids such as a boat hook mounted adjacent to the gunwale or suitable davit should be utilised.