

# GUIDELINES FOR HELMET DIVING/UNDERSEA WALK

## 1.0 Purpose of Guidelines

The guidelines for the Helmet Diving/Undersea walk activity has been prepared by the Ministry of Tourism and Leisure to ensure that the activity is performed with due regard to safety, conservation and environmental priorities. The standards for equipment and operating procedures defined herein are intended to establish the minimum acceptable procedures for safe and responsible operation of the activity.

## 2.0 Definitions

**2.1 Helmet Diving/Undersea walk** means a recreational activity wherein:

- a person walks on the sea floor at a maximum depth of 4 metres with the assistance of an overhead helmet and a hose connected to a free flow supply of fresh compressed air provided from the air compressor or cylinder found on a pleasure craft or platform and engage in a guided tour on the seabed to view the marine life in its natural habitat.

**2.2 Site Manager** means the person who shall be present on site at all times to supervise the overall operations of the activity and equipment. He shall also ensure the safety of clients, cleanliness of the operation base and pleasure crafts.

**2.3 Helmet Diver** means the person going underwater to take part in the Activity.

**2.4 Underwater helmet** means a breathing device worn over the head to ensure that the Helmet Diver has sufficient volume of air at all times to breathe normally.

**2.5 Underwater monitor** means an experienced underwater guide wearing a different colour of underwater helmet who shall guide the helmet divers along the trails.

**2.6 Surface swimming monitor means** an experienced surface swimmer using masks, snorkels and fins who shall follow the helmet divers whilst swimming on

the surface and watch the overall well being of participants and render assistance as necessary.

**2.7 Air Supply monitor** means an experienced person who shall be responsible for ensuring that the required air supply is maintained at all times and that a reserve air supply is always readily available.

### **3.0 General Rules**

#### **3.1 Waiver and Release from Liability Form**

Without exception, all Licensees shall require ALL HELMET DIVERS of legal age or if a minor; a parent or legal guardian to read and sign an assumption of risk and release of liability waiver prior to participating in the Activity as per Standard Form at **Annex I**.

#### **3.2 Conditions attached to the Activity**

##### **3.2.1 Location**

- (i) The Activity shall be carried out only along approved trails, be of a minimum distance of 1-5 m from any coral fields and be determined according to the site and the region;
- (ii) The sites of operation shall be selected based on its convenience to the tourism hub, landing point, hotels, sea conditions and its natural beauty displaying a variety of marine life, coral colony in a safe marine environment of not more than 4 m depth as measured at high tide and in calm water;
- (iii) The site for the Activity shall not be moved at any point in time without prior approval by the Ministry responsible for fisheries;
- (iv) The proposed site shall remain a public domain; and
- (v) The Licensee shall inform the Ministries for Tourism, Fisheries, Environment and Tourism Authority of the starting date of operation of the activity for monitoring purposes.

##### **3.2.2 Other requirements**

- (i) The Licensee shall show proof of having the minimum list of equipment as listed at para. 3.3 for the Activity; and

- (ii) The Licensee shall have the minimum personnel requirements as listed at para. 3.4 for the Activity with proof of qualifications of same.

### **3.2.3 Clearances/Licenses/Permits**

- (i) The Licensee shall submit the following to the Ministry responsible for fisheries for the approval of the helmet diving/undersea walk site and pay the appropriate fees for the survey:
  - (a) submit a site plan and the trails with a detailed description of the site including coral patch;and
  - (b) propose GPS coordinates.
- (ii) The clearance letter of the Ministry responsible for fisheries shall then be submitted to the Tourism Authority together with the plan to the Tourism Authority for approval of TEL.
- (iii) The Licensee shall hold a valid TEL for the Activity; and
- (iv) The Licensee shall hold or use a pleasure craft having a valid PCL.

### **3.2.4 Hours of business**

The operating hours for the Activity shall be between 8.00hrs and 17.30 hrs.

## **3.3 Minimum requirements of equipment for operation**

### **(i) Dive Helmet**

#### **(a) Material:**

A breathing device worn over the head and made of Inox or Stainless Steel(SS) or fiber glass or unbreakable polycarbonate plastic.

#### **(b) Design:**

The design shall be based on efficiency, comfort and safety.

#### **(c) Air Supply Control:**

The air supply monitor shall operate a pressure regulator that controls the pressure of air flowing into the helmet.

(d) View Ports & Visual Field : the material used shall be of laminated glass or heat tempered glass or clear polycarbonate plastic.

Diving helmet viewports shall :

- (i) avoid underwater view distortion;

(ii) be at least 7 mm thick for tempered or laminated glass, and 3-5 mm thick for polycarbonates; and

(iii) provide good visibility in front, both sides and above

(e) Helmet Fittings: Material used shall be of stainless steel as far as practicable. Helmet hose connectors shall have a snap lock fitting and be self-sealing

(f) Helmet Weight: The helmet shall have negative buoyancy of between 5 and 10 kgs when submerged and full of air.

**(ii) Air delivery System**

Solar or Electric or fuel motor driven air compressors or compressed air cylinder shall be available as the compressed air source. The operator shall keep record of maintenance and testing of air compressors and cylinders to be made available to relevant authorities on request.

**(a) Air Compressor**

(i) There shall be regular maintenance of air compressor;

(ii) The air filter shall be changed as and when required or according to manufacturer's specification; and

(iii) Air purity shall be tested and recorded on an annual basis.

**(b) Cylinder**

There shall be regular maintenance and servicing along with visual inspection and pressure testing.

**(iii) Reserve Air Supply**

A reserve air supply of 10 minutes for 9 divers shall be made available.

**(iv) Control Panel**

A Control Panel shall have an adjustable pressure regulator and pressure gauge showing the pressure of air being delivered to divers.

(a) A heavy duty Stainless Steel(SS) or Inox control panel with inlets and outlets or SS valves for up to 8 divers(+ one Underwater Monitor) shall be provided;

(b) The Air supply monitor shall control the air supplied to the helmet divers; and

(c) Each diver shall have a separate air supply.

**(v) Hose and fittings**

Type: breathing yellow air hose in accordance with AS 2299 and AS/NZS 1716 or any equivalent standards

Reinforcing: Terylene braid with longitudinal supports along the entire length of the hose

Outer material : U.V. & kink resistant and UV resistant for long life

Length of Hose: It shall be a maximum of 30 metres .

**(vi) Hose reel and stand**

To eliminate hose entanglement, a Stainless Steel/galvanised/aluminium hose stand is recommended.

**3.4 Personnel Requirements**

All Helmet Diving operation bases shall be operated with trained staff all of whom shall be proficient in swimming, snorkeling, and hold valid, recognized and approved certification qualifying them in life saving and first aid techniques. Such first aid qualification shall include resuscitation techniques. These staff shall operate in the following capacity, regardless of whether 1 or 8 helmet divers make up the guided tour:

- (i) **One underwater monitor** shall guide the Helmet Divers around the site;
- (ii) **Two surface swimming monitors** using masks, snorkels and fins shall follow the group of divers whilst swimming on the surface and watch the overall well being of participants and be able to render rapid assistance as necessary;
- (iii) **One air supply monitor** on board (i.e. pleasure craft or platform) shall be responsible for ensuring that the required air supply is maintained at all times and that a reserve air supply of 10 minutes provision is always readily available; and
- (iv) **A Site Manager** shall be present on operation site at all times to supervise the overall operations of the activity and equipment. He shall also ensure the safety of clients, cleanliness of the operation base and pleasure crafts.

**3.5 Pleasure Craft transfer**

The Licensee shall ensure that the pleasure craft used for transfer of clients to the operating base has been authorized to collect clients from the designated embarkation point.

### **3.6 Pre-Dive Verbal and Physical Briefing**

- (a) The monitor or Manager in charge shall give a pre-Dive verbal and physical briefing before any underwater activities commence.
  
- (b) It shall be the responsibility of the monitor in charge to ensure that pre-dive briefing be clearly understood by all participants and shall contain, inter alia the following information:
  - (i) a description of the activity;
  - (ii) description of local marine life and conservation;
  - (iii) safety precautions to be taken while proceeding to the site and during the walking trail;
  - (iv) safety and life saving equipment locations;
  - (v) warnings and procedures for unexpected events and in case of emergency;
  - (vi) Signals for basic communication underwater which must include “OK” and “I want to go back to the dive platform” (use of illustrated cards for these signals is recommended);
  - (vii) How to equalize pressure in the ears
  - (viii) No participants may enter or be in the water at a Helmet Diving site at any time unless having been instructed to do so ;
  - (ix) question and answer period; and
  - (x) exclusion of any passenger or participant that may be intoxicated prior to participation.

### **3.7 Minimum age requirements**

No person of less than 7 years shall be allowed to undertake the Activity. A child between 7 years and 12 years shall be accompanied by an adult during the underwater trail.

### **3.8 Underwater Trail**

- (i) The Underwater monitor shall stand by at the foot of the ladder to receive and steady helmet divers as they descend from the platform to the sea floor by means of a secure ladder;
- (ii) The total number of helmet divers (including the Underwater Monitor) shall not exceed 9 persons;

- (iii) The activity shall be carried out in a maximum of 4 meters bottom depth as measured at high tide and in calm water;
- (iv) The minimum and maximum duration for the underwater part of the activity shall be 15 and 20 minutes respectively; and
- (v) The tour shall take place within the approved trail.

### **3.9 Daily equipment inspections and maintenance**

Prior to operating, it shall be the responsibility of the Site Manager to have the underwater monitor inspect the helmet dive walking circuit to ensure it is clear and clean. He will carry out a daily inspection of all helmet diving equipment to check for any damage and/or wear and if necessary the item shall be immediately replaced or taken out of service. Other related equipment shall also be properly maintained and in safe operating condition.

### **3.10 Boat traffic/right of way**

At all times the “divers down” Alpha flag (with dimension 20x24 inches including a stiffener to keep the flag unfurled) or rigid replica and visible at least 30 metres away and from any direction shall be fixed on the platform while the activity is being carried out. Boat traffic shall not be allowed within a distance of 30 metres from the approved trail except for transfer of clients to the operating boat/platform and security craft. The zone shall be demarcated with floats during the operation.

## **4.0 Weather Conditions**

### **4.1 Pre-Dive Weather Evaluation**

It shall be the responsibility of the Site Manager to evaluate and determine if both weather and sea conditions are favourable for the safe operation of the Activity.

#### **4.1.1 Weather Warnings**

The Activity shall not be carried out once a cyclone warning is in force or any adverse conditions exist.

#### **4.1.2 Sea Condition**

The underwater monitor and the Site Manager shall jointly assess the sea conditions throughout the day, both on the surface and underwater, to determine if conditions are safe for diving. A dive shall not be operated in seas where current

or wave action affect the ability of participants to walk or maintain their balance under water or if underwater visibility is less than 4 meters.

## **5.0 Environment Conditions**

All Licensees shall comply to the Environmental Guidelines No. 23 dated 29 September 2006 (**Annex II**) of the Ministry of Environment and S.D as follows:

- (i) The proposed site shall have prior approval of the Ministry responsible for Fisheries and shall remain a public domain;
- (ii) The exact Global Positioning System (GPS) Coordinates of the site shall be submitted to the Ministry of Tourism and Leisure, Ministry of Environment and Sustainable Development and the Tourism Authority;
- (iii) The platform or boat used for the Activity shall be anchored with pins on a sandy bottom devoid of corals, sea grass bed and seaweed. The anchored platform shall not be displaced;
- (iv) No coral shall be removed or broken;
- (v) No marine organism shall be removed from the site;
- (vi) No marine organism, dead or alive shall be imported to the site;
- (vii) Feeding of fish shall not be allowed;
- (viii) All measures shall be taken by the Licensee to ensure that the marine ecosystem is not disturbed or damaged; and
- (ix) The hose used for supply of breathing air shall not damage corals and other marine organisms.

## **5.1 Other conditions**

- (i) Prior to start of operations, the promoter shall carry out a baseline study and place permanent transects on the site for future monitoring;
- (ii) The Licensee shall monitor the site and submit a report (including photos) every 6 months and a yearly report (including a video), prepared and certified by a marine biologist on the state of the marine environment, to the Ministry of Tourism, Ministry responsible for Fisheries, the Ministry of Environment and the Tourism Authority; and
- (iii) The promoter shall ensure that participants stay clear of organisms and do not block or attempt to alter their natural path.

## **6.0 Safety Requirements**



- (i) The Licensee shall be held responsible for any negligence leading to an incident or accident during the activity;
- (ii) The Licensee shall establish and practice an emergency drill every month involving all staff during which staff will demonstrate their ability to support on the surface and swim with a person a distance of 30 meters to the ladder and remove this person from the water without any assistance from the person involved ;
- (iii) All staff shall be familiar with the procedures to be followed in case of emergency. (i.e. emergency phone numbers shall be displayed on the platform such as medical, Coast Guard and other relevant authorities); and
- (iv) Under no circumstances may alcohol be brought onto the activity's base or consumed by any member staff or participants engaged in the activity.

## **7.0 Safety Equipment**

### **7.1. Safety Equipment**

- (i) Licensees shall use only approved items of equipment in good condition; and
- (ii) All pleasure crafts/platform shall be fitted or provided with the items of equipment as prescribed under the Tourism Authority (Items of Equipment for Pleasure Crafts) Regulations 2013 (Draft). (**Annex III**)

### **7.2 Additional equipment for Pleasure Craft/Platform**

At all times the pleasure craft or recreational platform when operational must be equipped with:

- a) reliable ship to shore two way communications onboard (at least one communication)
- (b) 2 First Aid Kit (1 for emergency and 1 for day to day use);
- (c) A back up form of communication, such as a cellular phone;
- (d) At least 2 large dry towels; and
- (e) At least 2 blankets.

## **8.0 Written Log Book**

A written log book shall be kept at all times on board craft/platform and shall, inter alia, contain the following:

- Number of participants;

- Duration of the running hours of the air compressor;
- Daily equipment inspections;
- Record of all Emergency drills held including date and names of participants;
- Weather and sea condition readings before every operation session; and
- Maintenance report.
- Record of safety drills held with date and names of participants

The standard Written Log Book is at **Annex IV**

## **9.0 NPF/NPS**

All staff shall be registered by the Licensee for the NPS/NPF.

## **10.0 Documents for Inspection**

Documents such as the following shall be made available for inspection:

- Written Log Book
- TEL and Pleasure Craft License or copies of same
- Skipper licenses and first aid qualifications
- Record of maintenance and testing of air compressor and cylinder

## **11.0 Insurance**

The activity of helmet diving/undersea walk shall be covered by a comprehensive insurance policy covering third party liability of a minimum of Rs 10 million/per activity.

## **12.0 Conduct of Licensee**

The Licensee shall adhere to the following minimum guidelines:

- a) He shall observe a zero tolerance policy for deviation from these guidelines which shall be considered as a minimum standard and must at all times place client's safety first;

- b) He must file an incident report to an authorized officer as prescribed [Section 2 of the Tourism Authority Act 2006], immediately upon any known, or client injury or rescue which requires medical attention, and shall use the Incident Report form as at **Annex V**;
- c) A copy of the emergency procedures manual and incident report form must be kept on board the vessel at all times while in operation;
- d) He shall observe the “Code of Conduct for Helmet Diving/Undersea walk Licensees, staff and participants” as at **Annex VI**; and
- e) Any breach of the above conditions would entail a warning or the suspension of the operator’s TEL and eventually the revocation or cancellation of the TEL for the Activity.

*Ministry of Tourism & Leisure*  
*15 March 2013*