

SAFETY NORMS FOR WATERSPORTS

National Institute of Watersports

**(A center under Indian Institute of Travel & Tourism Management)
(Ministry of Tourism, Govt. of India)**



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SAFETY NORMS FOR WATERSPORTS

These safety norms for watersports in the field of adventure tourism are given in this booklet as a guideline for watersports operators. They specify the minimum safety standards as regard to infrastructure equipment/ accessories, operator's qualifications and guidelines for watersports operations. The norms haven been divided into following sections:

Section 1: General Watersports

- a) Boat and Water-scooter Rides
- b) Parasailing
- c) Water Skiing and Fun Rides
- d) Jet Ski
- e) Windsurfing and Sailing
- f) Kayaking and Canoeing

Section 2: Scuba Diving

Section3: River Rafting

Section 4: Lifeguarding

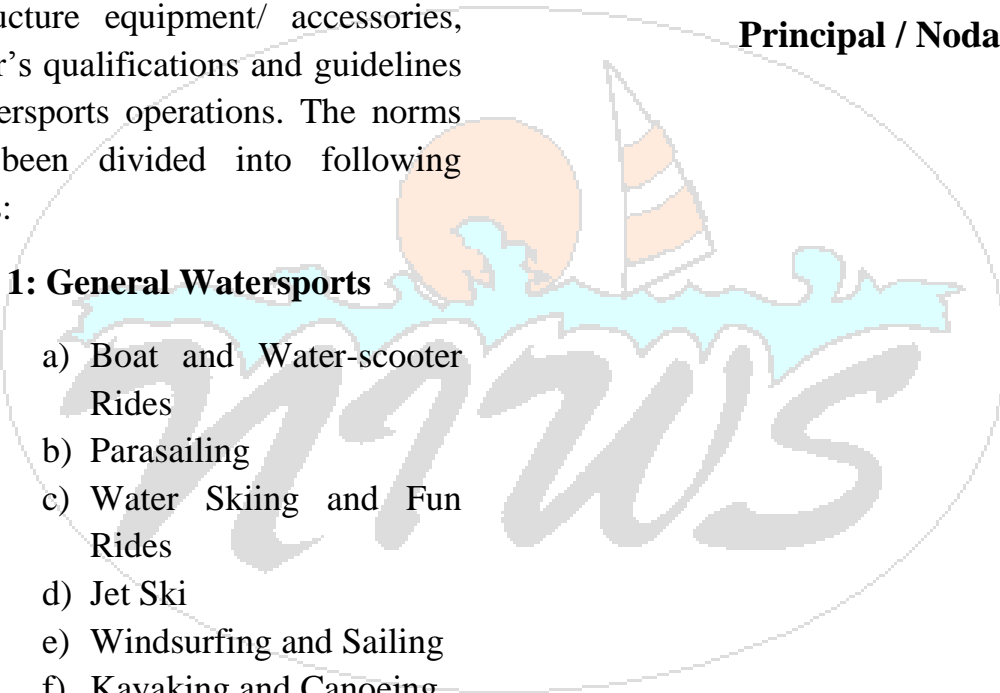
- a) Pool Lifeguards
- b) Beach Lifeguards

Respective enforcing authorities shall add further regulations, if any deemed

necessary, to these norms to suit local condition. Technical advice on the matter of safety in watersports and enforcement of the norms contained here can be sought from the National Institute of Watersports.

The latest version of the norms can be downloaded from NIMW website at www.niws.nic.in.

Principal / Nodal Officer



SECTION- 1: WATRTSPORTS

Scope: These regulations are applicable for Watersports centers offering powerboat handling including water-scooter and Jet Ski rides, water-skiing, sailing, parasailing, kayaking and canoeing. Norms for SCUBA diving and river rafting have been given separately.

Infrastructure:

Boat club shall have the following infrastructure:

- Embarkation/disembarkation arrangement for customers in the form of a jetty or pontoon.
- Shelter for customers with facilities for drinking water and toilet.
- Storage space for watersports equipment to protect it from deterioration from exposure to direct sunlight. Fuel should be Stored in separate “Inflammable” store in a well ventilated area and provided with appropriate fire fighting facilities
- Maintenance area for defect rectification and preventive maintenance.

Equipment and Accessories:

- New equipment must have certification for design as well as manufacture from a certification agency such as India Register of Shipping (IRS). Existing equipment should have a similar certification from a Marine Architect for serviceability and seaworthiness.
- The carrying capacity of the boats must be clearly displayed so that it can be seen by the passengers as well as regulatory agencies.
- The buoyancy aids must be available in sufficient numbers to Cater for the deployment of all the watersports equipment simultaneously. They must be available in different sizes so that they will fit customers of all sizes and age groups.
- A first-aid box with standard supplies must be available on shore at an easily accessible location.
- Rescue tube, specifically developed for on-water rescue, should be carried on the rescue boat as well as on passenger boats used for rides. The existing lifebuoys should be phased out and replaced by the rescue tubes.

Operator's Qualifications:

I. Lifesaving Techniques

(LST):

The entire staff of the watersport center who are directly involved with the operations must have LST certification from National Institute of Watersports (NIWS). It is desirable that personnel indirectly connected with watersport center like waiters, receptionists, sweepers etc. also qualify in the First Aid and CPR modules of the LST course so that they can render help in an emergency.

II. Powerboat Handling Certification (PBH):

All powerboat/ water scooter/ jet ski drivers must hold PBH certification from NIWS or its equivalent international certification from agencies like Royal Yachting Association (RYA)

III. **Note:** Validity of above certification is two years, after which, the same shall be renewed.

Watersports Operation- General Norms

Area of Operation:

Area for operation of mechanized craft (water-scooter/ boat/ Jet Ski etc.) should be away from the area of manually operated crafts like paddle boating, rowing, kayaking etc. It should be clearly marked with flags & floats. On the beach, swim zone should be marked with floats & there should be a small pontoon in the center as a safety point for swimmers. Boats involved in leisure rides or in parasailing shall not go beyond the visual range of the rescue boat driver/ lookout.

For Rescue:

A rescue boat must be available in full readiness during the entire period of watersport operation. This boat must be powered by OBM of minimum 10 HP. A Lookout-cum-boat driver must be standby near the boat. The boat as well as the Lookout should not be involved with any other activity while on rescue duty.

Period of Operation:

Boating should be restricted to day light hours only.

Norms for Boat and Watersports Rides

Driver's qualification:

Driver should hold a valid PBH as well as LST certification. Validity of above certification is two years, after which, the same shall be renewed.

Operating instructions:

It shall be full responsibility of the boat driver to ensure that every rider Wearing of buoyancy aids of appropriate size by customers would be that of. Buoyancy aid must fit snugly and all the fasteners should be secured during the entire period of ride.

- Boat/ water-scooter should be operated from a jetty, or a ramp where embarkation of passengers can be carried out safely.
- Weight of the passengers must be evenly distributed and they should remain seated throughout the boat ride.



Norms for Parasailing

Driver qualification:

The boat driver must have a remote control powerboat handling [PBH- R (LEVEL 3)] certification from NIWS. In addition, he must have a minimum of 30 supervised launches before handling operations independently.

Boat and OBM:

The boat used for parasailing must have adequate engine power. It is ideal to have a winch-boat but use of a remote-controlled boat with minimum of 90 HP is also permitted. The must have a strong anchor/point specially built for attachment of parasail.

Equipment and Accessories:

Parasail must be made of material suitable for use over water. The parasailing center must have a windsock or a hand –held wind speed meter to determine the wind velocity.

Operating Instructions:

- Parasailing operation must be carried out from specially marked area of the beach to avoid injury or disturbance to other beach users. A stretch of 200 feet shall be clearly marked

on the beach with a notice board warning other beach users to keep clear during takeoff and landing.

- The parasailing operation must be stopped whenever the wind speed exceeds 15 miles per hour at sea level.
- In addition to Driver, the boat must carry one assistant to serve as a “Lookout”.
- The boat driver must keep a sharp lookout for swimming in water to take quick evasive action.
- The parasailing equipment shall be inspected and certified by NIWS or specialist on its behalf/ National governing body of paragliding.

Waterskiing & Fun Rides Using Powerboat

Driver Qualification: Must hold PBH and LST certification. In addition, he should have conducted water-skiing operations under controlled supervision on at least five occasions. He should be thoroughly conversant with standard hand signals used between driver and skier.

Equipment and Accessories:

- The powerboat used for skiing must have adequate power (minimum 40HP) with remote control.
- The skier must wear specially designed buoyancy aid for water skiing and should have additional padding on the chest and collar.

Operating Instructions:

- The ski boat must carry a Lookout who will keep an eye on the skier and advise the boat driver accordingly
- The ski boat is to be operated outside the swimming area of the beach/ water body.
- For fun-rides, customers must wear buoyancy aids of correct size with all fasteners secured snugly. Children shall not be allowed to take the fun rides unless buoyancy aid to their size is available.

Jet Ski/ Personal Watercraft (PWC)

Operator’s qualification: Must hold PBH and LST certifications from NIWS or its equivalent. In addition to

this basic seamanship qualification, he should also undergo Jet Ski conversion course conducted by NIWS.

Operating Instructions:

Operating area: Jet Ski should be operated in a well defined area beyond normal swimming and watersports area. It is very important keep in mind that even the wake generated by a Jet Ski would pose danger to kayaks and paddle boats.

Forbidden Maneuvers: Riding too close to other boats, jumping wake of boat or waves and fast approaching to the jetty is forbidden. During emergency turning, the driver would lose control of Jet Ski if the throttle is released abruptly. Therefore, power should be reduced after turning action is complete

Rides by Jet Ski driver: Normally Jet Ski should be used at a Watersport centre and designated place. The rides should be manned by a qualified driver and he has to ensure that the passengers wear snugly fitting buoyancy aids throughout the ride.

Jet Ski Rides by Customers Accompanied by a Boat Driver:

Watersport center may allow customers to driver a jet ski provided:-

- I. A qualified boat driver seats behind during the ride.
- II. Customer is thoroughly briefed on the controls of the Jet Ski, the rules of the road and basic seamanship during Jet Ski handling. Jet Ski drivers sitting behind on such a ride shall ensure that speed limit and the safety instructions are followed by the rider so as to avoid accident and injury to others. If the customer disobeys the instructions, the driver shall immediately take over the control.

Jet Ski Ride by Customers Independently:

Watersport centre can allow independent riding of jet ski by its customers but same is permitted only after an experienced instructor, holding jet ski certification from NIWS, conducted a short familiarization lesson as per “jet ski” familiarization check list issued by NIWS. Successful completion of familiarization should be recorded on the indemnity bond. Children below 16 years of age should not be allowed for independent Jet Ski ride.



Windsurfing & Dinghy Sailing

Operator Qualification:

The watersport centre should have at least one staff member holding certification from NIWS or from the national governing body of the respective Watersport with adequate proficiency. Proof of participation in national/ Navy Sailing regattas can also be considered equivalent to a proficiency certificate.

Equipment and Accessories:

- The windsurfing/ sailing In-charge must inspect the equipment, accessories and fitting before commencement of the season (and thereafter every month) and certify its serviceability in the log book.
- The equipment must be manufactured under IRS certification or imported from a reputed manufacturer.

Operating Instruction:

- There should be a rescue boat with a driver stand-by for the entire duration of sailing.
- The area of operation shall be clearly marked and be within the

visual range of the rescue boat driver.

- The helper must be stand-by whenever the customer approaches the disembarkation pontoon/ jetty or the beach.
- The boat crew/ windsurfer must wear a buoyancy aid with all fasteners snugly secured throughout the sailing period.
- Passenger carrying capacity of the sailing boat should not be exceeded.

Kayaking and Canoeing

Operator Qualification:

The watersports centre should have at least one staff member holding certification from NIWS or from a national governing body of the respective Watersport with adequate proficiency. Proof of participation in National/ Navy regattas can also be considered equivalent to a proficiency certificate.

Equipment and Accessories:

The kayaks and canoes must be manufactured under IRS certification for design & manufacture.

The existing Kayaks should be certified by a marine architect for strength, buoyancy and ease of entry and exit from cockpit.

Operating Instruction:

- The watersports center is responsible for imparting adequate training to customers before handing over the kayaks for independent operation.
- It is recommended that the watersport center conducts a familiarization training program for this purpose.
- The kayaker must wear a properly fitting buoyancy aid while on water.
- There should be a rescue boat with a driver stand-by throughout the duration for which the kayaks/ canoes are in water.
- The area of operation should be clearly defined and be within the visual range of the rescue boat operator.



SECTION: 2

SCUBA DIVING

Operator Qualification:

Dive Instructor: The dive center should employ at least one 'Dive Instructor' certified by internationally recognized agencies viz. E.G. PADI, CMAS, NAUI, BSAC and SSI.

Dive Boat Driver: The boat driver must hold PBH and LST certifications from NIWS (or its equivalent). The dive boat also must carry a person who holds a valid life saving techniques (LST) certificate from NIWS or with valid "Medic First Aid" certification.

Equipment and Accessories:

Dive Equipments: The dive center should have a minimum of 06 diving sets that include tank, regulator with pressure gauge, depth meter and dive watch or deco-computer, mask, snorkel, fins, buoyancy compensating jacket, quick release weight belt and alternate air source.

Equipments/ Gadgets: The dive boat must carry the items such as required number of dive flags, oars, flares, first aid kit, walkie-talkie & medical oxygen set.

Pressure Testing: The Dive Center must possess a certificate of pressure testing from an authorized testing Agency, which is valid for 3 years. It should be renewed on 3-year intervals or as per rules of the Government of India regarding operating high pressure cylinders.

The details of inspection are to be entered in a maintenance book along with cylinder number. Tanks are not allowed to be used after 12 years of the date of manufacturing.

Air compressor: It is strictly advised to the use of specified compressor oil only. Air purifying filters in the compressor are to be changed as per guidelines of compressor manufacturer and the same be entered in compressor log book along with number of cylinders filled accordingly. The Center must also obtain a certificate from an authorized Agency stating the quality of output of air compressors every 6 months.

Operating Instructions:

- ‘Emergency Action Plan’ (EAP) must be drawn up specifying actions to be initiated by the members of the dive team and the support staff in event of emergencies of different nature.

- The dive center must have a permanent office address with telephone.
- A rate card is to be prepared and effectively valid for one season.
- At least one ‘Safety staff’ must be available at the base station throughout when sea-dives are conducted.
- The dive center must diligently abide the guidelines for safe operation and protection of marine environment that will be issued by NIWS on behalf of MOT from time to time.

SECTION: 3

RIVER RAFTING

Operator Qualifications:

- The River Guide must hold valid certification of competency from NIWS or a national governing body recognized by the MOT.
- He must also hold a Life Saving Technique (LST) certification from NIWS or an equivalent certification from respected national governing body.
- They must complete two familiarization runs under supervision before the

commencement of each season and before undertaking commercial runs.

- Minimum age for guides is 18 years except for float trips (grade IInd below) where it may be relaxed to 15 years.

Equipment and Accessories:

- There shall be at least two crafts on the water during operation. However, of these, both can be rafts/ kayaks or a combination of one raft and a safety kayak. This may be relaxed for float trips in case of rafts. For kayaks, a minimum of two should be in water.
- All trips must carry a well-equipped First Aid kit (containing triangular bandages, sterile pads, gauge roller bandages, pressure bandages, First Aid adhesive tape, splints, scissors) and repair kit (containing half meter of repair material, glue and accelerator, sand paper and waterproof repair tape).
- Oar rafts must carry at least one spare oar.
- All rafts must have a safety line going all around the raft. Besides, a bow-line and a stem line are also preferred.

- A raft must have a throw bag and a bailing bucket.
- A flip line is recommended for all big drops.
- Appropriate shoes/sandals/booties are a must for rafting.
- Suitable clothing must be worn during winter/ on glacier-melt river and cold air temperatures. For such rivers, dry suits/ wet suits are recommended. In their absence, light woolen/synthetic cloths are suggested but cotton is to be strictly avoided.

Operating Instructions:

- All rafters/kayakers including guides must strictly wear a life jacket at all times while in the water. The life jackets must have adequate buoyancy (minimum of 6.14 kg. but preferably 9 to 10 Kg.), must meet the specification of US coast guard type III or V. Inflatable and the 'keyhole' type jackets are not recommended.
- Guides must ensure that the life jackets are worn 'snugly' before the trip starts.
- Helmets are mandatory for rafters irrespective of whether the rafting takes place through

rapids or under normal flow. It should also be properly strapped.

- Non-swimmers should not be allowed on rapids above Grade III.
- Guides/ Expedition leader must ensure that a thorough safety briefing, covering all pertinent details for a particular trip, is given before each trip. The trip leader must ensure that guests are in suitable attire (bulky cloths, sarees, turbans, neck ties, long skirts and three piece suits are to be totally avoided).
- People suffering from any serious ailments, weak heart conditions, epilepsy and expectant mothers should not be allowed on raft.
- Non-swimmers should not be allowed to body-surf.
- Trip must be timed in such a manner to finish it at least an hour before sunset.
- Anybody consumed alcohol (in any form or quantity) or illicit drugs at least six hours prior to the expedition must not be allowed to get on the craft.
- The river/ beach must be kept clean.
- Nothing should be done to offend the local people or to

harm the flora and fauna of the area.

- It is mandatory for all outfitters and guides to maintain a log book. It should contain the details of the trip viz. number of boards/ passengers, river map, river geography- including gradient, rapids and its height/elevation, water level, velocity- gadgets on board, accident or untoward incidents or injuries etc. The outfitter and guide log books must be signed by the senior guide/ Expedition leader after every expedition.

SECTION: 4

LIFEGUARDING

Pool Lifeguard

Scope: The regulations contained below are applicable for lifeguarding at Swimming Pool, Water Park and Lake-front. The stipulations are being framed to ensure that the people/ participants enjoy swimming/ water-borne activities and are free from fear of safety and security.

Qualification: The person must be in possession of a valid Lifesaving

Technique (LST) certification from NTWS or equivalent certification from agencies like National Pool and Water Park Association and National Safety Council. Validity of the certification is 2 years after which, a Lifeguard has to undergo a two-day re-validation course to conform that he meets the stipulated physical fitness and rescue standards.

Swimming Ability Norms:

- To swim 100 mtrs. in 2 minutes without resting, by way of crawl or breast stroke.
- To dive 08 inch deep and bring up a 5 Kg. weight to the poolside/ bank.
- Tread without moving the legs for minimum 01 minute.

Rescue Equipment: Reach-out pole, elevated observation platform consisting of chair with sunshade, rescue tube, pocket mask for mouth to mouth resuscitation, Ambuse bag, back board for spinal injuries, Stretcher, first aid box and whistles with lanyard.

Personal items: Uniform, cap, sun glasses and sun protection creams.

Life Guarding Instructions:

- Duties should not exceed 4 hours at a time.
- Area under observation should not exceed 50 meters. More than

one observation post must be provided for longer//bigger swimming pools or water parks.

- Lifeguard on active duty should not be distracted while on duty. No other job shall be assigned to while they are on pool duty.
- Lifeguard should be familiar with standard communication signals.
- An Emergency Action Plan (EAP) should be drawn up covering all types of emergencies, which inter alia specify the role of each member of the Pool Management. It should be recast periodically by incorporating necessary additions/ modifications.

Beach Lifeguard

Scope: Same as safety norms for Pool Lifeguard

Qualifications: A Beach Lifeguard can be put on active lifeguard duty only if he holds a valid “Silver Certification” from NIWS or its equivalent certification from international agencies like Surf Lifesaving Association of Australia.

A ‘Beach Lifeguard Supervisor’ must be in possession of a valid ‘Gold’ certification from NIWS or equivalent

agencies. Validity of both the certification is one year, after which a lifeguard has to undergo a two day re-validation course to confirm that he meets the physical fitness, swimming and CPR standards.

Swimming Ability and Fitness Norms:

A. Silver Certification

- **Swimming ability:** swim 400 mts. in 09 minutes or less in a swimming pool of not than 25 mtr. or a measured open water course.
- **Physical fitness:** Run-swim-run through surf for 200 mts.; then swim 100 meters through the surf (without fins); swim back 100 mts. and run a further 200 mts. Maximum time allotted to complete it is 08 minutes.

Gold Certification

- **Swimming ability:** complete 800m swim in 14 minutes or less in a swimming pool of not less than 25m or a measure open water course.
- **Physical fitness: Run Swim Run:** same as silver certification. Also run 1600 mtrs in 7 minutes

Rescue Equipment: Same as in Safety norms booklet

Personal Items: Same as in Safety norms booklet

Lifeguarding Instructions:

- Duties should not exceed 4 hours at a time.
- The lifeguard must work in pairs.

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