
Draft Jamaican
Standard
Specification
for

**Tourism entities using high angle
techniques**



BUREAU OF STANDARDS JAMAICA

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DRAFT JAMAICAN STANDARD

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Product Certification Marks



Plant Certification Mark



Certification of Agricultural Produce
(CAP) Mark



Jamaica-Made Mark

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Jamaican Standards establish requirements in relation to commodities, processes and practices, but do not purport to include all the necessary provisions of a contract.

The attention of those using this standard specification is called to the necessity of complying with any relevant legislation.

Amendments

No.	Date of Issue	Remarks	Entered by and date

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DRAFT JAMAICAN STANDARD

Foreword

This standard was developed with the intention to streamline and regulate high angle activities offered by tourism entities, while enhancing the visitor's experience by providing a safe, secure and fun environment. This standard is to be used as a guide for all operators offering high angle activities within the tourism industry.

Tourist attractions in Jamaica have been steadily evolving with a growing sub-sector exponentially. In light of this, the Government of Jamaica has taken a strategic approach towards its development, through the promotion of investments, to encourage diversification of the product, while ensuring that standards and regulations are developed and implemented. Developing the attractions sub-sector will enhance the visitors' experience, diversify the product and as a whole improve the long-term competitive positioning of the tourism industry.

This standard is voluntary.

Committee representation

The preparation of this standard for the Standards Council, established under the Standards Act, 1969 was carried out under the supervision of the Tourism Product Development Company Limited (TPDCL) and the Bureau's Tourism High Angle Techniques Technical Committee which at the time comprised of the following members:

Ms S Lewis, Chairman	Tourism Product Development Company Ltd.
Mr P Fuller, Vice-Chairman	Consumer Affairs Commission
Mrs L Newsome-Finnikin	Tourism Product Development Company Ltd.
Mrs D Keating Campbell	Tourism Product Development Company Ltd.
Mr D Anglin	Tourism Product Development Company Ltd.
Mr R Rankine	Tourism Product Development Company Ltd.
Mr D Haughton	Chukka Caribbean Adventures
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Ms J Henry, Recording Secretary	Bureau of Standards Jamaica
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Acknowledgement

Acknowledgement is made to the following institutions/persons for permission to reproduce material from the following document:

Hines, Tom & Hudson, Steve (2005) Highland Rescue Technique 3rd Edition.

Related documents

This standard makes reference to the following:

The National Fire Protection Association (NFPA) 1670 Standard on Operations and Training for Technical Search and Rescue Incidents

Jamaican Standard Specification for Tourism entities using high angle techniques

1. Scope

This standard establishes requirements for tourism attraction entities using high angle techniques. These techniques include but are not limited to activities such as: canopy, zipline, tranopy, challenge course, bungee jumping, rock climbing and any other activities deemed appropriate.

2. Terms and definitions

For the purpose of this standard, the following definitions shall apply:

2.1

belay.

The action of protecting a person from falling by managing an unloaded rope in a way that secures the person on the rope in case the individual's mainline rope or support fails.

2.2

belayer.

The person who controls a safety rope connected to another person/load to keep them from falling.

2.3

cardiopulmonary resuscitation (CPR).

An emergency procedure consisting of external cardiac massage and artificial respiration. This is the first treatment for a person who has collapsed, has no pulse and has stopped breathing.

2.4

chief safety officer (CSO).

A person responsible for the training, operation and maintenance of the activities taking place at the attraction. This person is part of the senior management team.

2.5

danger zone.

The geographical area, period, or scope of activity in which the probability of damage, injury, loss or other undesirable outcome is at its highest.

2.6

emergency.

Any situation that requires extraordinary procedures and/or personnel to resolve the issue.

2.7

equipment.

The commercially manufactured pieces that are normally worn or carried by the patron.

2.8

fall and arrest system.

A system designed to protect personnel from the risk of falls when working at an elevated height or platform.

2.9

first aid.

The immediate care given to a sick or injured person.

2.10

high angle techniques.

The use of load-bearing cables and/or platforms, rappelling equipment, systems, skill sets, and other activities that involve suspending and moving persons in the air.

2.11

lead safety officer (LSO).

A person with the overall responsibility of ensuring that all safety procedures are adhered to on each tour/activity.

2.12

load limit.

The maximum weight at which the equipment or tour element can be operated safely, as specified by the manufacturer.

2.13

rappel.

The use of a rope and friction device to descend from a climbing or elevated position.

2.14

safety officer (SO).

One of several persons under the direction of the Lead Safety Officer who guides patrons through each tour/activity.

2.15

standard operating procedure (SOP).

A set of written instructions that document routines or repetitive activities which describes both technical and administrative operational elements of an organisation that would be managed under a Quality Assurance Project Plan and under an organisation's Quality Management Plan.

2.16

techniques.

Procedures and skills used during normal tour operations.

2.17

tour elements.

Activities or components of the attraction.

2.18

traverse.

The route travelled from one point to another.

3. General requirements

3.1 All entities shall have a Chief Safety Officer (CSO).

3.2 A Lead Safety Officer (LSO) shall be appointed to each tour and shall maintain care and control of the tour at all times. The LSO shall report all incidents to the CSO.

3.3 An environmental, occupational health and safety assessment of the attraction shall be conducted by the relevant agencies. This assessment shall include:

- (a) Soil test results for areas in which all anchorage is located.

(b) Tests results to determine soil type, average depth of the root system, the existence of any underground water and any other pertinent features where trees are used as structural support for the activity.

(c) Tests to ascertain the health of the tree(s) being used as an anchorage for these activities.

3.4 Each operator shall develop and implement a documented standard operating procedure (SOP) manual that addresses how the operator will meet safety programmes. The standard operating procedure (SOP) shall apply to equipment, zoning requirements, overhead structures, floors, walls, drains, lighting devices, and anything else which impacts on safety.

3.5 The tour design, certified by a registered Engineer, shall be submitted to the relevant agencies.

3.6 A topographic map (1:50,000) of the entire attraction area including the project proposal shall be submitted to the relevant agencies.

3.7 An Engineer's report shall be submitted:

(a) at the initial commencement of an activity and every three years thereafter;

(b) after any major disaster(s); or

(c) after any alteration /modification to the structure.

3.9 The Safety Officer (SO) to patron ratio shall be no more than one to six patrons (1:6) and shall be stated in the standard operating procedure (SOP) manual.

3.10 An Employees Manual shall be made available to all members of staff and shall include the following:

(a) First aid procedures;

(b) information about the tour, the location of the facility, the natural resources and safety requirements;

(c) training procedures;

(d) a map of the tour area; and

(e) emergency evacuation procedures.

3.11 Signs shall be erected throughout the property and shall be guided accordingly by the relevant authorities and/or agencies.

3.12 All relevant licenses, permits and certificates shall be displayed for public viewing

4 Equipment

4.1 All equipment used for safety purposes shall be approved for life support in the high-angle environment.

4.2 All pieces shall be used within the manufacturer's recommendations.

4.3 Capacity weight limits of the equipment inclusive of harnesses and carabineers shall be within the safety margin factors as recommended by the manufacturer.

4.4 All hazards that could result in injury to the patron found on or near the tours, trails and/or structures shall be removed, or steps shall be taken such as markings or paddings of hazards to reduce the risk of injury.

4.5 All safety lines shall be replaced as per safety check with a schedule or after exposed to any factors such as: excessive force, chemicals, or natural disasters that could affect the integrity of the line.

4.6 All persons shall be connected to the safety lines at all times while on platforms.

4.7 Adequate lighting shall be utilized during periods of specific measure of light intensity or low light intensity, for example: fog, smoke and excessive cloud cover, in order to clearly identify all equipment, the platform and the location of the patron from a minimum of 10 meters (33 feet). Lighting shall include items such as: camera, glow stick or any other lighting approved by the relevant agencies

4.8 All equipment shall be inspected each day prior to and after use and the findings recorded in a log. Logs shall be kept and made available upon the request of the regulatory body or agency.

4.9 A detailed internal inspection of all gears shall be undertaken once per week. Records of weekly inspections shall be maintained and indicated with the following:

- (a) date of inspection;
- (b) name and or serial number of the equipment;
- (c) type of equipment inspected;
- (d) name of the inspecting officer;
- (e) condition of the equipment.

4.10 The equipment shall be maintained according to the manufacturers' specifications. Records of the maintenance schedule shall indicate the following:

- (a) date of repair or replacement;
- (b) name of equipment repaired or replaced; and
- (c) name of maintenance personnel.

4.11 Any gears withdrawn from the operation shall be clearly marked as such, and subsequently destroyed and disposed of, in an appropriate manner and in accordance with the requirements of the relevant agencies.

4.12 Manufacturers' specifications for the equipment being used shall be available on site and shall be presented upon request by any regulatory bodies or agencies.

4.13 Design calculations shall be provided for all equipment erected. This shall include, but not be limited to, the angle of the slope and the average speed expected under flow conditions for the canopy and ziplines.

4.14 Cable lines are to be clear from any obstructions and shall be installed in accordance with the requirements of the authority with jurisdiction.

4.15 Where there are electrical lines nearby, the high angle lines shall be installed in accordance with the requirements of the authority with jurisdiction.

4.16 The weight limit for each activity shall be enforced so as not to undermine the integrity of the equipment.

4.17 The maximum weight on the platform shall be as per clause 3.7 the Engineer's report.

4.18 Patrons shall be provided with personal protective gears (PPG), where applicable, to include but not be limited to:

- (a) gloves;
- (b) harnesses;
- (c) helmets.

4.19 Patrons who refuse or fail to wear the personal protective gears (PPG) shall be prohibited from participating in tour activities.

5. Techniques

5.1 Patrons shall not enter any danger and restricted zones without authorized personnel.

5.2 All danger and restricted zones shall be clearly demarcated.

5.3 Signs shall be posted at the staging area indicating the associated risks of all activities.

5.4 Appropriate safety systems and techniques shall be used in danger and restricted zones.

5.5 Patrons shall not be left unsupervised on trails or platforms at any time.

5.6 The Safety Officer (SO) shall:

- (a) ensure that the patrons follow instructions and do not handle equipment(s) at any time;
- (b) use the appropriate patron control technique throughout the tour;
- (c) observe the patrons to detect changes in body language and composure to mitigate against accidents;
- (d) explain all techniques, safety rules and demonstrate the basic techniques at the commencement of each tour;
- (e) explain to patrons prior to the start of a tour the risks involved in participating in the activity;
- (f) ascertain the health status of patrons from the waiver forms before they are allowed to participate in any activity.

5.7 Patrons who do not adhere to instructions by the Safety officer (SO) shall be removed from the tour.

5.8 Patrons shall use the equipment as presented in the pre-tour briefing.

5.9 A basic First aid kit shall be taken by each Safety officer (SO) on all tours. A fully equipped First aid kits shall be placed at strategic locations on the tour where they are readily accessible within a time frame defined by the operator's standard operating procedure (SOP).

6. Emergencies

6.1 Emergencies shall include but not be limited to the following:

- (a) Damage to the tour elements or the equipment or any situation that result in the unplanned stoppage or closure of the tour.
- (b) An injury to a patron or Safety officer (SO) that results in the person not being able to continue the tour in the normal way, or one in which the person requires the attention of a medical professional.
- (c) An environmental hazard, natural or manmade disaster such as: lightnings, storms, earthquakes, fires, high winds, hurricanes, or any other act, which makes usage of the facility dangerous and evacuation of the tour area necessary.
- (d) Any other situation that results in the unplanned closure of the tour.

6.2 Emergency preparedness and response

An emergency response manual shall be prepared and documented. A copy of the emergency response manual shall be kept on property and submitted to the relevant agencies. The entity in developing its procedure(s) shall at minimum considered the following:

- (a) Internal and external communication plans in which there is communication of emergencies and the submission of a written report to the relevant regulatory agencies within three (3) days of the incident with written notice of the incident to the relevant agencies within twenty-four (24) hours.
- (b) The most appropriate method(s) for responding to an accident or emergency situation.
- (c) The action(s) required to minimize environmental damage.
- (d) Mitigation and response action(s) to be taken for different types of accident or emergency situations.
- (e) The need for a process (es) for post-accident evaluation to establish and implement corrective and preventive actions.
- (f) Testing of emergency response procedure(s) at a minimum of twice per annum or more frequently depending on the nature of the operations.
- (g) Training of emergency response personnel.
- (h) A list of key personnel and aid agencies including, contact details (e.g. fire department, ambulance service, doctor on call) which shall be updated as required.
- (i) Current maps of evacuation routes and assembly points shall be readily available.
- (j) Directional signs shall be conspicuously displayed along evacuation routes and assembly points.

7. Competence and training

7.1 The operator shall ensure that persons performing tasks for or on its behalf are competent on the basis of appropriate education, training or experience.

7.2 All Safety officers (SOs) shall be trained and certified in life saving skills including First aid and CPR.

7.3 All Safety officers (SOs) shall be trained in Tour Guiding and Team Jamaica Certification programmes.

7.4 The Chief safety officer (CSO), Safety officer (SO) and all staff involved in the tours shall receive safety training. These shall include but not be limited to:

- (a) National Fire Protection Association (NFPA) 1670 – Standard on Operations and Training for Technical Search and Rescue Incidents.
- (b) High angle techniques.
- (c) Rope and rescue awareness (Advanced level).
- (d) Emergency response and procedures.
- (e) Wilderness rescue (where applicable).

7.5 Training shall include the use of the equipment specific to the tour.

7.6 The operator shall ensure that training records are retained.

Standards Council

The Standards Council is the controlling body of the Bureau of Standards Jamaica and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister in the manner provided for in the Standards Act, 1969. Using its powers in the Standards Act, the Council appoints committees for specified purposes.

The Standards Act, 1969 sets out the duties of the Council and the steps to be followed for the formulation of a standard.

Preparation of standards documents

The following is an outline of the procedure which must be followed in the preparation of documents:

1. The preparation of standards documents is undertaken upon the Standard Council's authorisation. This may arise out of representation from national organisations or existing Bureau of Standards' Committees of Bureau staff. If the project is approved it is referred to the appropriate sectional committee or if none exists a new committee is formed, or the project is allotted to the Bureau's staff.
2. If necessary, when the final draft of a standard is ready, the Council authorises an approach to the Minister in order to obtain the formal concurrence of any other Minister who may be responsible for any area which the standard may affect.
3. The draft document is made available to the general public for comments. All interested parties, by means of a notice in the Press, are invited to comment. In addition, copies are forwarded to those known, interested in the subject.
4. The Committee considers all the comments received and recommends a final document to the Standards Council
5. The Standards Council recommends the document to the Minister for publication.
6. The Minister approves the recommendation of the Standards Council.
7. The declaration of the standard is gazetted and copies placed on sale.
8. On the recommendation of the Standards Council the Minister may declare a standard compulsory.
9. Amendments to and revisions of standards normally require the same procedure as is applied to the preparation of the original standard.

Overseas standards documents

The Bureau of Standards Jamaica maintains a reference library which includes the standards of many overseas standards organisations. These standards can be inspected upon request.

The Bureau can supply on demand copies of standards produced by some national standards bodies and is the agency for the sale of standards produced by the International Organization for Standardization (ISO) members.

Application to use the reference library and to purchase Jamaican and other standards documents should be addressed to:

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