शारीरिक गतिविधि, खेल और चोट प्रबंधन — शैक्षिक संस्थानों और सामुदायिक खेल अकादमियों में सुरक्षा के लिए दिशानिर्देश

Physical Activity, Sports and Injury Management — Guidelines for Safety in Educational Institutions and Community Sports Academies

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Health, Fitness and Sports Services Sectional Committee, SSD 05

#### FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Health, Fitness and Sports Services Sectional Committee had been approved by the Service Sector Division Council.

The play and recreational spaces have to be inherently safe spaces for participants. They are a hub for child play in schools and community spaces, fun for families, enjoyment with friends, and places for communities to come together. However, these places are also locations where unintentional injuries occur and recent research has shown playgrounds and equipment are places where participants are exposed to hazards.

This standard provides the guidelines for safety of participants involved in physical activity and sports including guidelines related to playground, layout, accessibility, maintenance, monitoring, entrapments, injury prevention for educational institutions and community sports academies.

This standard is aimed to promote awareness on safety in physical activities and sports in educational institutions and community sports academies. It is intended for use by primary school teachers, middle and secondary school officials, community sports academies, equipment manufacturers, purchasers and installers, playground designers, architects, engineers and designers concerned with public playground safety.

The guidelines given in the standard are not the sole method on safety in physical activities and sports to minimize injuries associated with playground and equipment. However, the recommendations in his standard on safety aspects contribute substantially to safety of participants while they are engaged in physical activities and sports.

These guidelines would help the decision makers in developing and implementing a systematic safety management programme for physical activities and sports in educational institutions and community sports academies.

The composition of the Committee, responsible for the formulation of this standard is given at Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

# PHYSICAL ACTIVITY, SPORTS AND INJURY MANAGEMENT — GUIDELINES FOR SAFETY IN EDUCATIONAL INSTITUTIONS AND COMMUNITY SPORTS ACADEMIES

# 1 SCOPE

This standard provides the guidelines for safety of participants involved in physical activity and sports in educational institutions including pre-schools, schools, colleges, universities, and community sports academies.

#### 2 TERMINOLOGY

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

**2.1 Barrier** — An enclosing device around an elevated platform that is intended to prevent both inadvertent and deliberate attempts to pass through the device.

**2.2 Composite Structure** — Two or more play structures attached or functionally linked, to create one integral unit that provides more than one play activity.

**2.3 Critical Height** — The fall height below which a life-threatening head injury would not be expected to occur.

**2.4 Designated Play Surface** — Any elevated surface for standing, walking, crawling, sitting or climbing, or a flat surface greater than 50 mm in length and breadth having an angle less than 30° from horizontal.

**2.5 Distinct Play Areas** — A clearly segregated fields of play for participants of different age groups or for different types of sports/physical activities.

**2.6 Entanglement** — A condition in which the user's clothes or something around the user's neck becomes caught or entwined on a component of playground equipment.

**2.7 Entrapment** — Any condition that impedes withdrawal of a body or body part that has penetrated an opening.

**2.8 Fall Height** — The vertical distance between the highest designated play surface on a piece of equipment and the protective surfacing beneath it.

**2.9 Field of Play** — The part of the field which is marked for playing.

**2.9 Guardrail** — An enclosing device around an elevated platform that is intended to prevent inadvertent falls from the elevated surface.

**2.10 Infill** — Material used in a barrier or between decks to prevent a participant from passing through the barrier.

**2.11 Landing Sector** — An area on grass or suitable material with an even surface soft enough to ensure that the place of the initial fall (for example, shot-put, hammer, javelin and discus) can be easily established by the supervisors.

**2.12 Loose-Fill Surfacing Material** — A material used for protective surfacing in the use zone that consists of loose particles such as sand, gravel, engineered wood fibres, or shredded rubber.

**2.13 Projection** — Anything that extends outward from a surface of the playground equipment.

**2.14 Platform** — A flat horizontal surface that is usually higher than the level of adjoining area such as a raised flooring.

**2.15 Pre-school Participants** — Participants of 3 years above and up to 5 years of age.

**2.16 Protective Surfacing** — Shock absorbing (that is, impact attenuating) surfacing in the use zone.

**2.17 Protrusion** — A projection which, when tested, is found to be a hazard having the potential to cause bodily injury to a user who impacts it.

**2.18 School Participants** — Participants of 5 years above and up to 18 years of age.

**2.19 Shading** — An overhead protective structure (natural like tree or manmade structure) that protects participants/spectators from the direct sunlight and rain.

**2.20 Supervisor** — A professional (for example, physical education teacher, sports coach, physical activity teacher/trainer, primary teacher, pre-school teacher, coaching staff), seasonal worker (for example, physical education college intern), volunteer or caregiver (for example, parent of the participants playing in the playground) responsible for conducting physical activities and sports.

**2.21 Toddlers** — Participants of 1 year above and up to 3 years of age.

**2.22 Use Zone** — The surface under and around a piece of equipment onto which a child falling from or exiting from the equipment would be expected to land.

# 3 SAFETY IN PHYSICAL ACTIVITY AND SPORTS

**3.1** Safety in physical activity and sports includes a broad perspective of conduct of physical activity, operational aspects, usage, infrastructure, equipment, maintenance and environmental factors. The following aspects should be covered to ensure safety of participants involved in physical activity and sports:

- a) Playground;
- b) Layout;
- c) Access;
- d) Maintenance;
- e) Monitoring;
- f) Fall surfacing;
- g) Entrapments;
- h) Injury prevention; and
- j) Injury management.

## **4 PLAYGROUND**

**4.1** For the purpose of laying down the requirements, the playground should be divided into the following parts:

- a) Field of play;
- b) Platform;
- c) Guardrails and barriers; and
- d) Shading.

### 4.2 Field of Play

4.2.1 The outdoor area should:

- a) be regular and generally flat surface (slope, if any, should be from center to outwards and within 2° of the horizontal);
- b) have adequate drainage;
- c) have no debris;
- d) have adequate lighting arrangement for use, whenever required; and
- e) be not more than 500 mm above from the general ground level, for toddlers.

**4.2.2** The indoor area should have:

- a) adequate free space around the field of play to minimize obstruction;
- b) adequate and uniform lighting as required for each physical activity/sport;
- c) adequate ventilation and airflow in line with the requirement of physical activity/sports;

- d) height as per the minimum height requirement of the physical activity/sport;
- e) not be more than 800 mm above from the ground for toddlers; and
- f) adequate fire safety equipment and emergency fire exits.

#### 4.3 Platform

The compliance of the following should be ensured while designing the platform of the playground:

- a) In case of multilevel structures in the playground, the platform should be layered or tiered so that participants should access the higher platform without steps or ladders. Unless there is an alternate means of access, the maximum difference in height between consecutive steps of the platform should not be more than:
  - 1) 150 mm for toddlers;
  - 2) 300 mm for pre-school participants; and
  - 3) 400 mm for school participants.

However, an access component (such as a rung) is needed if the difference in height is more than 300 mm for preschool participants and 400 mm for school participants.

- b) In case of open gap between the consecutive platforms, infill should be used to reduce the space between the consecutive steps in the platform to minimize the entrapment hazards. The gaps should be reduced to a maximum of:
  - 1) 70 mm for toddlers; and
  - 2) 90 mm for pre-school and school participants.

### 4.4 Guardrails and Barriers

In order to avoid participants from climbing over or walk through the barrier and accidental falls from elevated platforms, the guardrails and barriers should be:

- a) designed to completely surround any elevated platform to prevent participant from climbing over, cross through or getting entrapped;
- b) fixed in such a way to prevent unintentional falls from the platform; and
- c) provided on elevated platforms, walkways, landings, stairways, and transitional surfaces.

#### 4.5 Shading

Adequate arrangement for shading should be available to safeguard the health of the participants. The efforts should be made to utilize existing shade (for example, trees, sheds) or creating more shade (for example, man-made structures).

#### **5 LAYOUT**

The following factors should be considered while laying of the playground:

- a) *Accessibility* In order to facilitate participation for participants, both abled and persons with disabilities, in physical activities and sports, appropriate design of the playground, access, selection of equipment, protective surfacing and location should be ensured.
- b) Distinct Play Areas Adequate arrangements should be made to ensure distinct play areas by providing separate buffer zones, for participants belonging to different age groups.
- c) *Conflicting Activities* In order to avoid the conflicting activities on the playground, the following should be ensured:
  - The play area is organized into different sections to prevent injuries caused by conflicting activities;
  - 2) Active physical activities are conducted separately from the more passive or quiet physical activities; and
  - 3) Area for playground equipment, open fields, and sand boxes are located in different and relevant sections of the playground. The following aspects to be ensured for designing of the play areas:
    - Field of play for athletics and outdoor sports like football, cricket, etc should be at the centre of the playground;
    - ii) Jump areas (high jump, long jump, etc) should be next to the athletic tracks;
    - iii) Throw activities like javelin, shot-put and discus throw should have protection area around them and safe landing sector as relevant to the sports. Ensure that no movement of people is outside the protection area and landing sector; and
    - iv) Moving equipment, such as swings and merry-go-rounds, should be located towards a corner, side, or edge of the play area.
- d) *Sight Lines* The following aspects should be considered for the sightlines of the playground :
  - The playground should be designed, installed, and maintained in such a way as to allow caregivers to keep track of participants as they move throughout the

playground environment. In case of playgrounds with areas for different ages, the elder participant's area should be visible from the younger participant's area so to ensure that caregivers of multiple participants can see elder participants while they are engaged in interactive play with younger ones; and

- 2) Visual barriers should be minimized so that play areas and equipment are visible from different directions.
- e) Signage or Labelling Signs and/or labels posted in the play area or on the equipment should give guidance to participants as well as supervisors. Labels and signage should be displayed in Hindi/English and vernacular language.

#### 6 ACCESS

**6.1** The following aspects should be considered while designing safe access and egress to platforms :

- Access to platforms using ramps, stairways with steps, ladders with steps or rungs and climbing components, such as arch climbers, climbing nets, and tire climbers should provide an intermediate standing surface so that the participant can pause and decide whether to keep going up or find another way down;
- b) In case there are difficult access approaches to the platform, should be easier and if possible multiple approaches for egress;
- c) In case of ramps, stairways, rung ladders and step ladders, the slope and tread dimension as mentioned in Table 1 may be different, but the steps or rungs should always be evenly spaced;
- d) Openings between steps or rungs and between the top step or rung and underside of a platform should prevent entrapment;
- e) When risers are closed, treads on stairways and ladders should prevent the accumulation of sand, water, or other materials on or between steps; and
- f) Climbing equipment should allow participants to descend as easily as they ascend. Wherever possible, provide an easier, alternate means of descent, such as another mode of egress, a platform, or another piece of equipment (for example, a stairway can be added to provide a less challenging mode of descent than a vertical rung ladder or flexible climbing device).

<b>Sl. No</b> (1)	<b>Type of Access</b> (2)	Toddler (3)	Preschool-age (4)	School-age (5)
i)	Ramps		. /	
	a) Slope(vertical : horizontal)	<1:8	$\leq 1:8$	$\leq 1:8$
	b) Width (single)	$\geq$ 480 mm	$\geq$ 300 mm	$\geq$ 400 mm
ii)	Stairways			
	a) Slope	≤ 35 °	< 50 °	< 50 °
	b) Tread width (single)	300 mm to 530 mm	$\geq$ 300 mm	$\geq$ 400 mm
	c) Vertical rise	$\leq$ 180 mm	$\leq$ 230 mm	$\leq 300 \text{ mm}$
iii)	Step ladders			
	a) Slope	35 ° to 65 °	50 ° to 75 °	50 ° to 75 °
	b) Tread width (single)	300 mm to 530 mm	300 mm to 530 mm	$\geq$ 400 mm
	c) Vertical rise	$> 130 \text{ mm}$ and $\leq 180 \text{ mm}$	$\leq$ 230 mm	$\leq$ 300 mm
iv)	Rung ladders			
,	a) Slope	Not applicable	75 ° to 90 °	75 ° to 90 °
	b) Rung width	Not applicable	$\geq$ 300 mm	$\geq$ 400 mm
	c) Vertical rise	Not applicable	$\leq$ 300 mm	$\leq$ 300 mm
	d) Rung diameter	Not applicable	24 mm to 40 mm	24 mm to 40 m

 Table 1 Recommended Dimensions of Access Ramps, Stairways, Step Ladders and Rung Ladders

#### 6.2 Rungs

For the safety of participants to have proper gripping, rungs should be round in shape and the surface of the hand grips should be semi-finished to prevent turning of grip.

# 6.3 Handrails

In order to provide hand support to the user, handrails should be extended continuously over the full length of the access on both sides of all stairways and step ladders, regardless of the height of the access. Handrails should be available for use at the appropriate height, beginning with the first step. The vertical distance between the top front edge of a step or ramp surface and the top surface of the handrail above it should be as follows:

- a) 350 mm to 500 mm for toddlers;
- b) 400 mm to 660 mm for pre-school participants; and
- c) 500 mm to 960 mm for school participants.

### **7 MAINTENANCE**

**7.1** In order to keep the play area, environment and equipment in a safe condition and protect the participants from the injury, a systematic and proactive maintenance programme for playground and equipment should be predefined and regularly executed. The detailed maintenance schedule with the assigned responsibilities should be available as document and communicated to all concerned. In

case of equipment, the manufacturer's maintenance instructions and the recommendations should be considered. The different aspects related to safety should be considered, while preparing the maintenance schedule. The frequency of inspections and maintenance should also be decided based on usage of equipment/playground.

**7.2** All playground areas and equipment should be inspected for excessive wear and tear, deterioration, and any potential hazards. The metallic surfaces should be periodically treated using paints, galvanization or other techniques to prevent corrosion thereby minimizing injury due to heat, rust and sharp edges. The wooden surface should be made of naturally rot and insect-resistant wood and should be periodically treated using paints and other coatings to avoid deterioration. The surface coatings containing pesticides are not recommended.

**7.3** The action on maintenance issues should be taken as per the laid down maintenance schedule which should include the actions required for various maintenance issues as given in **7.3.1** and **7.3.2**. The records of actions taken for implementation of maintenance plan of playground and equipment should be maintained. The checklist for maintenance of playground and equipment as given in Annex A may be used.

#### 7.3.1 Playground

The following actions are recommended on the maintenance issue of the playground:

Sl No.	Maintenance Issue	Action Required
i)	Uneven surface	Use of rollers at regular intervals
ii)	Water stagnation/blockage	Clear the drainage and level the ground
iii)	Potholes	Repair
iv)	Debris/trash	Remove and dispose of
v)	Sharp/unwanted materials	Remove and dispose of
vi)	Weeds/unwanted vegetation	Pluck and dispose of
vii)	Discontinuity of turf	Repair/replace
viii)	Deterioration of turf	Repair/replace

# 7.3.2 Equipment

Sl No.	Maintenance Issues	Action Required
i)	Protective surfacing under and around the equipment	Repair/replace surfacing
ii)	Deterioration of surfacing materials of the equipment	Repair/replace surfacing
iii)	Rust, rot, cracks or splinters	Repair/replace
iv)	Missing components	Reinstall/replace as per equipment manufacturer's manual
v)	Anchoring/loose fastening device of equipment, wherever applicable	Repair/replacement of anchor point and fasteners
vi)	Peeling, cracking, chipping, or chalking of paint	Repaint
vii)	Visible paint chips or accumulation of dust	Remove and repaint
viii)	Crush and shearing points on exposed moving parts	Repair
ix)	Worn out moving parts of equipment	Repair/Replacement

NOTE — The records of actions taken during maintenance of playground and equipment should be maintained.

## **8 MONITORING**

The designated supervisor should be responsible for overall monitoring of safety of participants using the playground and equipment. The supervisor should also be responsible for maintenance of playground as well as equipment including but not limited to:

- a) checking for unfit equipment and making sure participants don't play on/with it;
- b) identification and condemnation of redundant equipment;

- c) checking and removing unsafe paraphernalia;
- d) checking for maintenance of protective surfacing;
- e) ensuring that participants use the suitable age appropriate sports specific equipment, apparel and footwear;
- f) ensuring discipline in the ground; and
- g) overseeing the activities of participants, equipment, open spaces and identification of the areas and activities of potential danger.

# 9 FALL SURFACING

**9.1** The surface of the playground should be commensurate to the intended physical activity/sport being played. To the extent possible, the playground protective surfacing should have shock absorbing properties and compliance regarding its critical height should be ensured. The guidelines given in **9.2** to **9.4** should be followed to ensure fall surfacing protection.

# **9.2 Appropriate Materials**

Appropriate material like engineered wood fibre. pea gravel, sand, shredded/recycled rubber mulch, wood mulch (not copper chrome arsenate (CCA) treated), wood chips, loose-fill material (wood products, sand, pea gravel, and crumb rubber) and unitary surface material (rubber tile, poured-inplace, and other artificial surfaces) should preferably be used. Usage of inappropriate surfacing materials include grass, carpet, mat, asphalt, cement, dirt, and concrete are not recommended. The loose-fill surfacing in areas under swings and at slide should be given special attention to reduce the displacement of material and maintain adequate depth to absorb the shock. Also, good drainage should be maintained to minimize material compaction and decomposition of loose fill surfacing.

# 9.3 Assembly and Installation

The equipment should be securely anchored and installed as per the manufacturer's assembly and installation instructions. The records of assembly/installation including date of installation, name of supplier, period of warranty/guarantee, functionality/fitness, etc, should be maintained by the supervisor.

### 9.4 Equipment Height

To provide protection and minimize the probability of injury in the event of fall of the participant, the type and quality of the playground surfacing material should be commensurate to the height of the equipment.

### **10 ENTRAPMENTS**

As participants are prone to entrapment related injuries in the playground, the following measures should be taken to minimize such injuries:

- a) Secure the openings in the equipment including ladder rungs, posts, and railings;
- b) Ensure that the participants are dressed in appropriate attire to avoid entrapment because of loose or inappropriate clothing/accessories; and
- c) Ensure that they are no loose ropes or loop forming materials which may lead to accidental strangulation.

# **11 INJURY PREVENTION**

**11.1** The appropriate precautions in terms of preparation, sports gear and discipline should be taken to prevent the chances of injury on the playground. The precautionary measures given in **11.2** to **11.8** are recommended.

# **11.2 Preparation**

Before participation in any activity, the compliance of followings should be ensured by the management/designated supervisor:

- a) A voluntary consent or assent should be taken from the parent/caregiver and records should be maintained; and
- b) Prior to the participation in organized sports, physical examination of the participant should be done by a qualified medical practitioner and records should be maintained.

# 11.3 Warm Up and Cool Down

It is recommended to engage:

- a) in general, and/or specific warm up activities before every practice and game in the presence of supervisor; and
- b) in cool down activity after every practice and game.

# 11.4 Sports Gear

It is recommended to use appropriate and properlyfitted sports gear to prevent or reduce the severity of injuries. A list of sports gear such as helmets, shin guards, mouth guards, ankle braces, shoes, etc, should be prepared and communicated to the participants in advance by the supervisor for each physical activity and sport.

### **11.5 Compliance of Rules and Regulations**

In order to play a safe game, the rules and regulations of the game should be abided by all concerned. The supervisor should share the applicable rules and regulations to all the participant before start of the sports activity.

# 11.6 Hydration

Before and after participation in any activity, the compliance of followings should be ensured by the supervisor/participants:

a) Before the start and after any sport or physical activity there should be mandatory and sufficient water intake;

- b) Mandatory water breaks should be given during the practice and the games for the participants to stay well-hydrated; and
- c) The supervisor should keep a watch on participants for any signs of dehydration and other forms of heat illness in the participants and take immediate actions.

#### 11.7 Concussion

Before and after participation in any activity and during game/practice, the compliance of followings should be ensured by the supervisor/participant:

- a) Supervisor and participants should be aware of the signs and symptoms of a concussion for example, headache, blow to the head, unconsciousness, dizziness, nausea, vomiting, slurring speech, double vision, fatigue, temporary memory loss, etc; and
- b) Participant(s) with suspected concussion should be immediately withdrawn from play until evaluated and cleared by a medical practitioner.

#### 11.8 Rest

The participants should ensure the followings:

- a) Take adequate rest before/after the practice and game to avoid injuries;
- b) Have breaks during the practice and game as prescribed for each game to recover from fatigue; and
- c) Take adequate rest to recover from an illness, pain or injury before any practice or game as per the advice of a medical practitioner.

#### **12 INJURY MANAGEMENT**

**12.1** Prompt and appropriate management of injury including first aid and shifting the injured participant to a medical centre/hospital/clinic should be ensured to minimize the harm.

#### 12.2 First Aid

In case of injuries during physical activities or sports, the following should be ensured:

- a) Providing first aid in accordance with established first aid principles;
- b) Communicating details of the incident to appropriate authorities;
- c) Recognizing an emergency and calling for help, if required; and
- d) Performing cardiopulmonary resuscitation (CPR) by a trained person, if required.

#### 12.3 First Aid Kit

The first aid kit should contain at least the following items in sufficient quantity:

- a) Analgesic spray;
- b) Antiseptic adhesives/dressings, liquid and ointment;
- c) Bronchodilator inhalers;
- d) Packaged sterilized absorbent cotton;
- e) Digital sphygmomanometer (Blood pressure measuring apparatus);
- f) Foil space blankets or preferably ambulance type blankets to keep players warm when injured;
- g) Glucometer;
- h) Ice packs;
- j) Latex or nitrile disposable protective gloves;
- k) Medicines including analgesics, antipyretics, antispasmodics, anti-emetics, anti-allergic antacids, nitroglycerine and aspirin;
- m) Micropore;
- n) Oral rehydration solution (ORS);
- p) Paper writing pad and pencil/pen;
- q) Thermometer, stethoscope and pulse oximeter;
- r) Resuscitation face shield or pocket mask for rescue breathing;
- s) Roller, crepe and triangular bandages;
- t) Sachet of sugar;
- u) Safety pins;
- v) Surgical scissors;
- w) Splints;
- y) Sterile gauze and trauma type clean dressings; and
- z) Torch and tweezers.

NOTE — Administration of medicines and inhalers should preferably be done in consultation with a qualified medical practitioner.

**12.4** In addition, the access to the following equipment/area for a match or competition should be ensured:

- a) First aid room or space;
- b) Stretcher or spine board;
- c) Hot and cold running water;
- d) Ambu bag;
- e) Automated external defibrillator (AED);
- f) First aid manual;
- g) Ice box;
- h) Nebulizers;
- j) Normal saline water;
- k) Player injury record forms (kept inside lockable cupboard); and
- m) Portable oxygen cylinder with support mask.

# ANNEX A

(Clause 7.3)

# (Informative) CHECKLIST FOR MAINTENANCE OF PLAYGROUND AND EQUIPMENT

A-1 The checklist for maintenance of playground is given below:

Sl No.	Maintenance of Playground	Yes	No	Action
i)	Uneven surface			
ii)	Water stagnation/blockage			
iii)	Potholes			
iv)	Debris/trash			
v)	Sharp/unwanted materials			
vi)	Weeds/unwanted vegetation			
vii)	Discontinuity of turf			
viii)	Deterioration of turf			

**A-2** The checklist for maintenance of equipment is given below:

<ul> <li>i) Protective surfacing under and around the equipment</li> <li>ii) Deterioration of surfacing materials of the equipment</li> <li>iii) Rust, rot, cracks or splinters</li> <li>iv) Missing components</li> <li>v) Anchoring/loose fastening device of equipment, wherever applicable</li> <li>vi) Peeling, cracking, chipping, or chalking of paint</li> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition?</li> <li>xvi) Are seats and attachments in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> <li>xviii) Is the sliding surface secure and free of gaps from side rails?</li> </ul>	Sl No.	Maintenance of Equipment	Yes	No	Action
<ul> <li>iii) Rust, rot, cracks or splinters</li> <li>iv) Missing components</li> <li>v) Anchoring/loose fastening device of equipment, wherever applicable</li> <li>vi) Peeling, cracking, chipping, or chalking of paint</li> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xiii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are all bolts in place and secure?</li> </ul>	i)	Protective surfacing under and around the equipment			
<ul> <li>iv) Missing components</li> <li>v) Anchoring/loose fastening device of equipment, wherever applicable</li> <li>vi) Peeling, cracking, chipping, or chalking of paint</li> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xiii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are all bolts in place and secure?</li> </ul>	ii)	Deterioration of surfacing materials of the equipment			
<ul> <li>v) Anchoring/loose fastening device of equipment, wherever applicable</li> <li>vi) Peeling, cracking, chipping, or chalking of paint</li> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xiii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	iii)	Rust, rot, cracks or splinters			
<ul> <li>applicable</li> <li>vi) Peeling, cracking, chipping, or chalking of paint</li> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are all bolts in place and secure?</li> </ul>	iv)	Missing components			
<ul> <li>vii) Visible paint chips or accumulation of dust</li> <li>viii) Crush and shearing points on exposed moving parts</li> <li>ix) Worn out moving parts of equipment</li> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are chains and shackles in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	v)				
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<ul> <li>x) Is the main frame safe and secure</li> <li>xi) Are all moving parts in working order</li> <li>xii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are chains and shackles in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	viii)	Crush and shearing points on exposed moving parts			
<ul> <li>xi) Are all moving parts in working order</li> <li>xii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are chains and shackles in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	ix)	Worn out moving parts of equipment			
<ul> <li>xii) Is the site clear of litter and dangerous objects?</li> <li>xiii) Are the trees free from potential falling deadwood and other hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are chains and shackles in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	x)	Is the main frame safe and secure			
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<ul> <li>hazards</li> <li>xiv) Is access to the site in good condition and clear of obstruction?</li> <li>xv) Are seats and attachments in good condition?</li> <li>xvi) Are chains and shackles in good condition?</li> <li>xvii) Are all bolts in place and secure?</li> </ul>	xii)	Is the site clear of litter and dangerous objects?			
<ul><li>xv) Are seats and attachments in good condition?</li><li>xvi) Are chains and shackles in good condition?</li><li>xvii) Are all bolts in place and secure?</li></ul>	xiii)	1 0			
<ul><li>xvi) Are chains and shackles in good condition?</li><li>xvii) Are all bolts in place and secure?</li></ul>	xiv)	Is access to the site in good condition and clear of obstruction?			
xvii) Are all bolts in place and secure?	xv)	Are seats and attachments in good condition?			
	xvi)	Are chains and shackles in good condition?			
xviii) Is the sliding surface secure and free of gaps from side rails?	xvii)	Are all bolts in place and secure?			
	xviii)	Is the sliding surface secure and free of gaps from side rails?			

Sl No.	Maintenance of Equipment	Yes	No	Action
xix)	Is the gel-coat surface of fibreglass slides intact and free from glass fibre protrusions?			
xx)	Have incident records and the hazard register been reviewed to identify hazards?			
xxi)	Is the sliding surface clear of obstructions?			
xxii)	Are timber posts sound and free of large structural cracks and splinters?			
xxiii)	Are timber floors and palings stable and free of large cracks and splinters?			
xxiv)	Are all nail heads flushed with timber?			
xxv)	Are all joints and connections firm?			
xxvi)	Are chains and ropes secure and in good condition?			
xxvii)	Are frames maintaining shape?			
xxviii)	Is the sandpit regularly raked, weeded and checked for dangerous objects?			
xxix)	Is the sandpit regularly checked and appropriately treated for animal fouling?			
xxx)	Is the sand replaced or replenished when necessary?			
xxxi)	Are borders free of splinters, exposed nails and pins?			
xxxii)	Is the sandpit covered when not in use?			
xxxiii)	Is the material loosened and levelled with a rake and cleared of objects to prevent compaction?			
xxxiv)	Is material that gathers under platforms and other structures removed and spread to main areas of impact?			
xxxv)	Is the material maintained to recommended compacted depth depending on fall height?			
xxxvi)	Is the grass well maintained?			
xxxvii)	Areas free of spiders or other dangerous Insects/animals?			
xxxviii)	Other potential risks			

#### ANNEX B

(Foreword)

# **COMMITTEE COMPOSITION**

Health, Fitness and Sports Services Sectional Committee, SSD 05

Organization Tata Institute of Social Sciences, Mumbai Athletics Federation of India, New Delhi All India Institute of Medical Sciences, New Delhi CSIR- Human Resource Development Centre, Ghaziabad Confederation of Indian Industry, New Delhi Directorate General of Health Services, New Delhi Directorate General of Quality Assurance, New Delhi Dr Lal Path Labs, New Delhi **Employees State Insurance Corporation** (ESIC), New Delhi Federation of Indian Chambers of Commerce and Industry, New Delhi Fitness and Sports Sciences Association, Gurugram Healthcare Sector Skill Council, New Delhi Heartfulness Institute, Gurugram HSCC (India) Limited, Noida Indian Medical Association, New Delhi Indian Council of Medical Research, New Delhi Indian Institute of Health Management and Research, Jaipur Indian Olympic Association, New Delhi Kalam Institute of Health Technology, Vishakhapatnam Kendriya Vidyalaya Sangathan, New Delhi Lakshmibai National College of Physical Education, Thiruvananthapuram Maulana Azad Medical College, New Delhi Ministry of Ayush, New Delhi Morarji Desai National Institute of Yoga, New Delhi Ministry of Skill Development and Entrepreneurship, New Delhi National Accreditation Board for Hospitals and Healthcare Providers, New Delhi

*Representative(s)* 

PROF HARSHAD THAKUR (Chairman)

SHRI SANDEEP MEHTA SHRI GOPAL KRISHNAN (*Alternate*) Representative

DR SHOBHNA CHOUDHARY

SHRI ANUPAM KAUL MS MANDAKINI PAWAR (Alternate) DR VINEET JAIN DR AJAY GUPTA (Alternate) REPRESENTATIVE

DR SEEMA KOCHHAR DR DEEPAK SAXENA

DR AMIT BHALLA SHRI RAJNEESH PATHAK (*Alternate* I) SHRI SAMIKSHAN MAJUMDAR (*Alternate* II) SHRI GURNIT SINGH DUA SHRI SATESH KUMAR SETHURAMAN (*Alternate*) SHRI ASHUSH JAIN MS ANSHU VERMA (*Alternate*) SHRI ANUJ SETYA DR RAHUL MEHROTRA (*Alternate*) REPRESENTATIVE DR J. A. JAYLAL DR R. V. ASOKAN (*Alternate*) REPRESENTATIVE

#### REPRESENTATIVE

REPRESENTATIVE SHRI DILIP KUMAR CHEKURI SHRI AMIT SHARMA (*Alternate*) SHRI BINU ASHOKAN DR USHA S. NAIR DR PRADIP DUTTA (*Alternate* I) DR S. JAYARAMAN (*Alternate* II) DR DHANANJAYA SABAT DR VEDPAL YADAV (*Alternate*) DR PRADEEP DUA DR ISHWARA N. ACHARYA DR GURU DEO (*Alternate* I) SHRIMATI HIMANI SHOKHAND (*Alternate* II) SHRI SIDDHARTHA SANKAR BANERJEE

DR ATUL MOHAN KOCHHAR DR PUNAM BAJAJ (Alternate)

organization	Representative(s)
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Public Health Foundation of India, Gurugram	Shri Sandeep Bi Ms Shifalik
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Services Export Promotion Council, New Delhi	Shri Chandran Shri Mayan Shri Rajesh
Sports Authority of India, New Delhi	Col Raj Singh E Ms Rachna Dr G. Kishoi Ms Lalita S
School of Planning and Architecture, New Delhi	REPRESENTATIVE
UL India Private Limited, Bengaluru	SHRI V. MANJUN

Voluntary Organisation in Interest of Consumer Education, New Delhi Yoga Certification Board, New Delhi

Organization

Organization

**BIS Directorate General** 

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Working group for drafting standard on Physical Activity, Sports and Injury Management - Guidelines for Safety in Educational Institutions and Community Sports Academies, SSD 05/WG 01

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Ghaziabad	
Confederation of Indian Industry, New Delhi	MS MANDAKINI PAWAR
Federation of Indian Chambers of Commerce and Industry,	SHRI SAMIKSHAN MAJUMDAR
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Sports Authority of India, New Delhi	Dr Rupali

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