# Playground Safety

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# Mississippi State Department of Health Playground Safety

# **DEFINITIONS**

- CPSC Consumer Product Safety Commission
   Contains guidelines for playgrounds used to certify and inspect daycare playground equipment in the state of MS.
- 2. **ASTM American Society for Testing and Material**ASTM 1487 (commercial/industrial equipment only) is used to certify and inspect daycare playground equipment in MS.
- 3. **Composite Structure** Large piece of playground equipment attaching more than one type of play into one structure.
- 4. **Entrapment** Any opening (gap) on playground equipment or fencing between 3 ½ and 9 inches, into which a child can become "trapped.
- 5. **Entanglement** when something around the user's neck becomes "tangled in/on playground equipment causing strangulation.
- 6. **Loose-Fill Surfacing Material** A protective surfacing material consisting of loose particles (sand, gravel, wood fiber, shredded tires, etc.)
- 7. **Unitary Surfacing Materia**l A protective (manufactured) surfacing material providing a single impact-absorbing surface (mats, tiles, poured-in-place, or combination of the three).
- 8. **Use-Zone** the area under and around a piece of equipment upon which a child would land (in the event of a fall or when exiting equipment).
- 9. Risk Something we are willing to do. Involves choice by the user.
- 10.**Hazard** Something unknown, hidden, unexpected or unforeseen.

  Developed 8/26/20

  Revised 7/12/20

# Playground Checklist

Center Name				Inspection Date	
Name of Licensing Official				License #	
Yes	No	N/a			
_	_	_	1.	Playground fence less than 3½" from surface. (Rule 1.11.9 (8), p 60) In good repair, with no gaps. (Rule 1.11.9 (8), p 60)	
_	_	_	2.	Two entrances/exits, with one being remote from the building. (Rule 1.11.9 (8), p 60)	
_	_	_	3.	Surfacing adequate. If not, where is it inadequate? (CPSC, 2.4.2, pp 9-10)	
_	_	_	4.	AC units, high-voltage cabling/wires inaccessible. (Rule 1.11.9 (5), p 59)	
_	_	_	6.	No standing water present on playground or in/on playground equipment or Walkways. (CPSC 2.4.2.2, p5, p 10)	
_	_	_	7.	Toys & equipment in good repair. (None broken/deteriorating) (Rule 1.10.2 (2), p 46)	
_	_	_	8.	Sidewalks provide smooth walking surface. (No trip hazards) (CPSC 3.6, pp 16-17)	
_	_	_	9.	Bolts on equipment and fence <2 threads beyond the nut? (Rule 1.11.9 (5), p 59) All bolts and fencing twists/wires facing away from the playground area	
_	_	_	10.	Tree limbs at least 7ft. above play surfaces? Is fence free of brush/overgrowth? (CPSC 3.4, 3.5, p 16)	
_	_	_	11.	Use zones adequate? If not, where are they inadequate? (CPSC 5.3.9, p 41)	
_	_	_	12.	If swings are present, are S-hooks in good repair? If not, state deficiency.	
				(CPSC 3.2, p 14; 2.5.2, p 11; 5.3.8.1, p 37)	
_	_	_	13.	If slide is present, is exit height/exit zone adequate? If not, state deficiency.	
				(CPSC 5.3.6.4-5 pp 34-36)	
_	_	_	14.	Spring rockers a minimum of 6 ft. apart? (CPSC 5.3.7, pp 36-37) (ASTM 9.5.1.2)	
_	_	_	15.	Age-appropriate equipment being used?  If not, state which pieces are inappropriate. (CPSC 2.2.6, p 6) (Rule 1.10.2, p 46)	
_	_	_	16.	Playground area clean & free of hazards? (Rule 1.11.11 (1), p 61)  If not, state deficiency.	
_	_	_	17.	Adequate shade is present on the playground. (CPSC 2.1.1, p 5) (Rule 1.11.9 (7), p 60)	
_	_	_	18.	Concrete footings located a minimum of 6" beneath the surface. (CPSC 3.6, pp16-17) (Rule 1.10.2 (3), p 46)	
_	_	_	19.	Is wood smooth? Documentation providing wood has been properly treated. (CPSC 2.5.5, p 12)	
Directo	or			Licensing Official	

# **Playground Lead Testing**

A test for lead in the playground soil is required once for all facilities.

- Collect small samples from 3 or 4 locations around the playground with a clean plastic spoon and combine them in a *plastic* bucket. (Metal buckets can affect the results.) NOTE: Remove any paint chips that are in sample you collected.
- Mix samples thoroughly in the bucket.
- Place approximately one (1) pint of soil in a plastic bag. (Ziploc)
- If your building was constructed before 1965, it is recommended that a composite soil sample (not more than five (5) samples) also be collected from the roof drip line, especially in areas where people walk. Before taking these samples, remove any old paint chips present. (Remove paint chips from your sample before submitting to your lab of choice.)

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### Mississippi State Chemical Laboratory (MSCL)

Website: www.mscl.msstate.edu Phone Number: 662-325-3428 Fax Number: 662-325-7807 Please ship soil sample and the MSCL Sample Submission Form, along with return name, address, and telephone number to:

Mississippi State Chemical Laboratory
PO Box CR
Mississippi State, MS 39762

Note: Price is \$15.00 for a 30-day turnaround time, \$20.00 for a 14-day turnaround time, and \$30.00 for a 3-day turnaround time. The MSCL will run the sample and send results back to the childcare facility. Please send your payment (check or money order) along with your sample or you may pay by credit card once the sample is received. Please contact the MSCL if you have any questions.

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### **EHS/BTS Laboratories**

Web site is www.btslabs.com Phone number is 1-800-347-4010. Fax number is 804-275-4907. Open 8-5 Eastern Time.

BTS Laboratories 7467 White pine Road Richmond, VA 23237

Price is \$8.00 for a soil sample with a 3-day turnaround time, \$9.00 for a 2-day turnaround time and \$25.00 for next day (if sample is mailed to the lab overnight.) Contact company to obtain instructions.

Source: www.healthyms.com: How to Get a Child Care License

# **Routine Inspection and Maintenance Issues**

☐ Broken equipment such as loose bolts, missing end caps, cracks, etc.
☐ Broken glass & other trash
☐ Cracks in plastics
Loose anchoring
☐ Hazardous or dangerous debris
☐ Insect damage
☐ Problems with surfacing
☐ Displaced loose-fill surfacing (see Section 4.3)
☐ Holes, flakes, and/or buckling of unitary surfacing
User modifications (such as ropes tied to parts or equipment rearranged)
☐ Vandalism
Worn, loose, damaged, or missing parts
☐ Wood splitting
☐ Rusted or corroded metals
Rot

# APPENDIX A: SUGGESTED GENERAL MAINTENANCE CHECKLISTS

Surfacing (§2.4)	Security of Hardware (§2.5)
Adequate protective surfacing under and around the equipment.	There are no loose fastening devices or worn con- nections.
Install/replace surfacing	Replace fasteners
Surfacing materials have not deteriorated.	Other maintenance:
Replace surfacing  Other maintenance:	Moving parts, such as swing hangers, merry-go- round bearings, and track rides, are not worn.  Replace part
Loose-fill surfacing materials have no foreign objects or debris.	Other maintenance:
Remove trash and debris	Other maintenance.
Loose-fill surfacing materials are not compacted.	Durability of Equipment (§2.5)
Rake and fluff surfacing	There are no rust, rot, cracks, or splinters on any equipment (check carefully where it comes in con-
Loose-fill surfacing materials have not been displaced under heavy use areas such as under swings or at slide exits.  Rake and fluff surfacing	tact with the ground).  There are no broken or missing components on the equipment (e.g., handrails, guardrails, protective barriers, steps, or rungs).
Drainage (§2.4)	There are no damaged fences, benches, or signs on the playground.
The entire play area has satisfactory drainage, espe- cially in heavy use areas such as under swings and	All equipment is securely anchored.
at slide exits.	Leaded Paint (§2.5.4)
☐ Improve drainage ☐ Other maintenance:	<ul> <li>Paint (especially lead paint) is not peeling, cracking, chipping, or chalking.</li> </ul>
	There are no areas of visible leaded paint chips or accumulation of lead dust.
General Hazards	
There are no sharp points, corners or edges on the	
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There are no sharp points, corners or edges on the equipment (§3.4).  There are no missing or damaged protective caps or plugs (§3.4).  There are no hazardous protrusions (§3.2 and	accumulation of lead dust.  Mitigate lead paint hazards
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There are no sharp points, corners or edges on the equipment (§3.4).  There are no missing or damaged protective caps or plugs (§3.4).  There are no hazardous protrusions (§3.2 and Appendix B).	accumulation of lead dust.  Mitigate lead paint hazards  General Upkeep of Playgrounds (§4)  There are no user modifications to the equipment, such as strings and ropes tied to equipment, swings looped over top rails, etc.  Remove string or rope  Correct other modification
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# Important Playground #s to Remember!

# In General

- 83% of accidents happen to children ages 2-9 years.
- ASTM 1487 is the manual with standards for commercial playground equipment
- Entrapments are any openings on a playground between 3 ½ to 9 in.
- In general, loose surfacing should be from 7-9 in. thick. (refer to table 1, Appendix D-8) General rule Use zones should be 6 ft around equipment over 30 in. in height.

## Slides

- The 'Use Zone' around a slide is 6 ft.
- The 'Exit Zone' at the end of a slide is a minimum of 6 ft to a maximum of 8 ft, depending on the height of the slide.
- The slide chute's walls should be at least 4 in. high.
- The exit height for a slide 48 in. high is 0-11 in. from the surfacing.
- The exit height for a slide over 48 in. is 7-15 in. from the surfacing.
- The inside diameter of an enclosed (tunnel) slide shall be no less than 23 in.
- There is a 21 in. 'Safe Zone' at the top of a slide where no gaps/protrusions are allowed.
- The openings in an S-hook shall never be greater than 0.04 in. (a dime should not fit into the opening!)

# **Swings**

- The 'Use Zone' for regular to-fro swings is 6 ft. around the entire structure.
- The 'Exit Zone' for regular to-fro swings is the height X 2, to the front & back.
- Pre-school swing seats should be a minimum of 12 in. from the surfacing.
- School-age swing seats should be a minimum of 16 in. from the surfacing.
- Tot swing seats should be a minimum of 24 in. from the surfacing.
- The distance between the chains of 2 to-fro swings should be a minimum of 24 in. at 5 ft from the surface.
- The distance between the chains suspending one seat, at the juncture of the supporting structure, shall be a minimum of 20 in.

# More #'s

- The maximum height for balance beams on a preschool playground is 12 in.
- The maximum height for balance beams on an afterschool playground is 16 in.
- Suspended hazards (tree limbs, chains, rope etc....) should never be within 84 in. (7 ft) of any designated playing surface.
- Transformers and high voltage power lines shall be at least 30 ft from the playground.
- The playground fence must be a minimum of 4 ft in height, unless hazards exist (pools, ditches, busy roads/highways etc....) within proximity. If so, a greater height may be recommended by your licensing official.
- Bolts on a playground fence or on playground equipment shall never protrude more than 2 threads beyond the nut.
- All concrete footings used to secure equipment or fencing into the ground shall be at least 6 in. under the surfacing.

# Tips for Keeping Children Safe on the Playground

Minimize the risk of playground injuries all year long.

### Protect children from sun.

- Use appropriate clothing and shaded areas.
- Apply sunscreen to children over 6 months.
- Check for safe temperatures.
- · Provide safe drinking water.

Children can safely play outside in most conditions.

### Prevent injuries.

- Keep younger children away from equipment designed for older children.
- Inspect the playground for hazards before each use.
- Keep children away from any hazards until they are fixed.
- Have a <u>Certified Playground Safety Inspector</u> check for hazards once per year.
- Use safe surfacing such as poured-in rubber, rubber mats, or loose surfacing (shredded rubber, mulch, or sand and pea gravel for children over age 3) that is at least 9 inches deep.

Safe playground surfacing will reduce injuries by more than half.



# Actively supervise children at all times.

- · Have clear sightlines and easy access to the children.
- · Watch, count, and listen to children.
- Anticipate what children may do and redirect when necessary.
- Account for all children before leaving the playground.

Active supervision could prevent nearly half of playground injuries.



NATIONAL CENTER ON

Early Childhood Health and Wellness

1-888-227-5125 • health@ecetta.info • https://ecikc.ohs.acf.hhs.gow/health