

## R430-90-19. Rule Interpretation Manual: Play Equipment

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Although active play is critical for children’s health, the active play areas of a child care facility are associated with frequent and severe injuries. The rules in this section are intended to prevent injuries related to indoor and outdoor play equipment. They are based on standards set by the Consumer Product Safety Commission (CPSC), the American Society for Testing and Materials (ASTM), the American Academy of Pediatrics (AAP), and the American Public Health Association (APHA).

These rules apply to indoor and outdoor stationary play equipment rather than moveable equipment (e.g. balls, riding toys, sensory table, sand/water toys, push/pull toys, hoops). Stationary play equipment has a base that is meant to keep the equipment fixed in one location when a child uses it. Examples of stationary play equipment include:

- Climbers (including plastic climbers and indoor vinyl-covered foam climbers)
- Slides
- Swings (except porch and patio swings)
- Sensory swings
- Spring rockers
- Inflatable bounce houses
- Raised tunnels and tunnels with handles children use for climbing
- Inner tube jumpers (they are not assessed as trampolines)
- Teeter-totters
- Roller coasters
- Climbing walls
- A merry-go-round (a revolving piece of equipment for children to ride on)
- A playhouse or treehouse that has an attached component such as a slide, swing, or climber unless the component is inaccessible
- A tree, if a component such as a rope or swing, is attached to the tree for the children to play on
- Multiple stumps, disks, boulders, or pillars that are installed in the ground and are intended for children to step on from one to the other

If a facility has stationary play equipment, the provider must ensure compliance with licensing rules or ensure children in care do not use the play equipment. All play equipment and associated use zones that are used by children will be inspected.

As stated in “Section 2: Definitions,” a use zone is the area beneath and surrounding a play structure or piece of equipment that is designated for unrestricted movement around the equipment, and onto which a child falling from or exiting the equipment could be expected to land.

The following items are not assessed as stationary play equipment:

- Slides that exit into swimming pools
- Carpeted ramps

- A tunnel that sits on the ground or floor and is used only as a tunnel and has no handles for climbing
- A tunnel with a height of 18 inches or lower even if it has handles or holes for climbing
- A natural structure unless it has attached play equipment such as a slide or climber
- Stumps or similar objects that are used only for seating
- Portable stumps that children can move around

Refer to “Section 9: Facility” to review the rules and guidelines about play equipment maintenance.

**(1) The provider shall ensure that children using play equipment use it safely and in the manner intended by the manufacturer**

**Rationale/Explanation**

Children like to test their skills and abilities. This is particularly noticeable around playground equipment. Even if the highest safety standards for playground layout, design and surfacing are met, serious injuries can happen if children are left unsupervised. Adults who are involved, aware, and appreciative of young childrens’ behaviors are in the best position to safeguard their well-being. CFOC 4th ed. Standard 2.2.0.1 p.p. 68-69.

Caregivers should ensure that children are using equipment that is appropriate for their age. CPSC. Public Playground Safety Handbook. Standard 2.2.3 p.p. 6.

**Compliance Guidelines**

Caregivers must prevent children from engaging in activities such as:

- Going down a slide head first
- Playing or being on parts of the equipment not intended for use, such as:
  - Climbing on or walking across the top of a swing set
  - Climbing up the outside of covered slides or other equipment
  - Playing on the roof of a composite structure
  - Climbing or playing on a tunnel not meant for climbing
  - Climbing or walking on top of protective barriers
- Using equipment that is inappropriate for their age

Additional guidelines:

- If a caregiver is actively preventing or immediately stopping children from using equipment in an inappropriate or unsafe manner, this rule is not out of compliance.
- It is a rule violation if children are allowed to use equipment unsafely or if a caregiver does not quickly stop an unsafe practice.

**Risk Level**

Moderate

**Corrective Action for 1st Instance**

Citation Warning

**(2) The provider shall ensure that, when in use, stationary play equipment is not placed on a hard surface such as concrete, asphalt, dirt, or the bare floor**

**Rationale/Explanation**

Head-impact injuries present a significant danger to children. Falls into a shock-absorbing surface are less likely to cause serious injury because the surface is yielding, so peak deceleration and force are reduced. CFOC 4th ed. Standard 6.2.3.1 p.p. 292-293.

**Compliance Guidelines**

- Acceptable cushioning includes grass, artificial grass, woodchips, unitary cushioning, mats, carpet, sand, shredded tires, and gravel.
- Packed sand and/or dirt (it does not displace when walking on it) is considered a hard surface.
- Mats used for cushioning must be in place under and around play equipment when children use the equipment. If cushioning mats are removed when there are no children in the area, CCL staff may ask to see how the mats are placed before children use the play equipment.
- Cushioning material that is frozen is considered a hard surface. If the cushioning cannot be loosened due to weather conditions, children may not use the play equipment until the material can be loosened. Although the equipment does not need to be inaccessible, it is a rule violation if children use the equipment while the cushioning is frozen.

**Risk Level**

Moderate

**Corrective Action for 1st Instance**

Citation Warning

**(3) Except for trampolines, the provider shall ensure that stationary play equipment with a designated play surface that is 18 inches high or higher:**

- (a) has a surrounding three-foot use zone, free of hard objects or surfaces, that extends from the outermost edge of the equipment;**
- (b) has cushioning that covers the entire required used zone; and**
- (c) is stable or securely anchored.**

**Rationale/Explanation**

Use zones allow for unrestricted movement around the equipment. Prevention of accidents is highly increased when use zones are free of any hard surfaces or objects since children using the equipment may inadvertently fall or jump from the equipment.

**Compliance Guidelines**

- When the use zone for play equipment is measured:
  - Each piece of play equipment must be placed where it is normally used by the children.
  - Measurements will be taken from the play equipment's outermost edge extending in all directions around and above the equipment.
  - A ½ inch allowance will be given to account for any uneven ground surfaces.
- Mats that are a component of foam climbers are considered cushioning and part of the use

zone.

- A third supporting leg that is used to help stabilize the play equipment and extends beyond the equipment frame is not considered when determining the required use zone.
- Tunnels — If a tunnel is used to climb on, then the tunnel must be in compliance with this rule. If the tunnel is used only as a tunnel to crawl through or if the tunnel is less than 18 inches high, then a use zone and cushioning are not required.
- Stumps, disks, or pillars — If they are meant for stepping from one to the other, they are considered one piece of equipment even though they are installed individually. If they are 18 inches or higher, a use zone is required around the group of stumps, disks, or pillars, and not around each individual component.
- Climbing wall — The highest designated play surface on a climbing wall is the highest flat 2 inch by 2 inch surface or the highest hand hold.
- Other equipment — Examples of other stationary play equipment that may require a use zone are listed in the introduction of this section.

A use zone is not required for:

- Stumps, boulders, disks, or pillars that are only used as seating.
- Portable stumps that children can move around.
- Sand diggers.
- Spring rockers and rocking horses that are less than 18 inches high.
- A playhouse with an attached slide that is blocked so that children cannot use the slide
- Areas above the roof of a piece of play equipment.
- The back or side of a piece of equipment that is flush against a wall.
- An embankment slide except at the bottom of the slide chute. This use zone must be at least as wide as the slide chute.
- Tetherball poles.

### **Risk Level**

Moderate

### **Corrective Action for 1st Instance**

Citation Warning

#### **(4) The department may consider a trampoline on the premises to be inaccessible to children in care if the trampoline:**

- (a) is enclosed behind a locked fence or safety net that is at least three feet high;**
- (b) has no jumping mat; or**
- (c) is placed upside down.**

### **Rationale / Explanation**

The AAP recommends: “Despite all currently available measures to prevent injury, the potential for serious injury while using a trampoline remains. The number of injuries incurred on trampolines is large and growing. CFOC 4th ed. Standard 6.2.4.4 p.p. 295.

Licensing rules are based on AAP-recommended safety precautions and apply to any accessible trampoline on the premises, including mini, exercise, and in-the-ground trampolines. The hazards that may result in injuries and deaths are from:

- Falling or jumping off the trampoline.
- Falling on the trampoline springs or frame
- Colliding with another person on the trampoline.
- Landing improperly while jumping or doing stunts on the trampoline.

### **Compliance Guidelines**

- Trampolines that are made inaccessible and not in use by children are not assessed.
- A trampoline may not be in the use zone of another piece of play equipment even if the trampoline is inaccessible.

- (5) The provider shall ensure that each accessible trampoline without a safety net enclosure has at least a six-foot use zone that is measured from the outermost edge of the trampoline frame, and that is free from any structure or object including play equipment, trees, and fences.**

### **Compliance Guidelines**

- 6-feet are measured from the outermost part of the trampoline.
- A caregiver must actively prevent children from leaving moveable objects (e.g. tricycles, toys, and other hard objects) in a use zone, or quickly remove the objects from the use zone.

### **Risk Level**

High

### **Corrective Action for 1st Instance**

Citation and CMP Warning

- (6) The provider shall ensure that each accessible trampoline with a properly installed, used as specified by the manufacturer, and in good repair safety net enclosure has at least a three-foot use zone that is measured from the outermost edge of the trampoline frame, and that is free from any structure or object including play equipment, trees, and fences.**

- (7) The provider shall ensure that each accessible trampoline with or without a safety net enclosure:**

- (a) is placed over grass;**
- (b) a six-inch deep cushioning; or**
- (c) other commercial cushioning.**

### **Risk Level**

Moderate

### **Corrective Action for 1st Instance**

Citation Warning

**(8) The provider shall ensure that cushioning for each accessible trampoline covers the entire required use zone**

**Risk Level**

Moderate

**Corrective Action for 1st Instance**

Citation Warning

**(9) The provider shall ensure that each accessible trampoline has:**

- (a) no ladders or other objects within the use zone a child could use to climb on the trampoline; and**
- (b) shock absorbing pads that completely cover the trampoline springs, hooks, and frame.**

**Rationale / Explanation**

A trampoline pad is one of the most important parts of a trampoline because it is made of high density, shock-absorbent materials. However, over time this material wears out becoming less shock absorbent and needs to be replaced on a regular basis.

**Compliance Guidelines**

- Children may use a ladder or other object to climb on the trampoline as long as 1) an adult is supervising at the trampoline, and 2) the ladder or object is moved out of the use zone while the child is jumping.

**Risk Level**

High

**Corrective Action for 1st Instance**

Citation and CMP Warning

**(10) The provider shall receive written permission from a child's parent or legal guardian before that child uses the trampoline.**

**Rationale / Explanation**

It is important that parents understand the risks associated with children jumping on trampolines and acknowledge the safety rules that their children must follow if allowed to use the trampoline.

**Risk Level**

Low

**Corrective Action for 1st Instance**

Warning

**(11) The provider shall ensure that if a child uses an accessible trampoline:**

- (a) a caregiver is at the trampoline supervising;**
- (b) only one person at a time uses the trampoline;**

- (c) no child in care is allowed to do somersaults or flips on the trampoline;
- (d) no one is allowed to be under the trampoline while the trampoline is in use; and
- (e) only school-age children in care are allowed to use a trampoline.

### **Rationale / Explanation**

Both the American Academy of Pediatrics (AAP) and American Academy of Orthopedic Surgeons (AAOS) Policy Statements recommend the prohibition of trampolines for children younger than six years of age. The AAP recommends: "Despite all currently available measures to prevent injury, the potential for serious injury while using a trampoline remains. The need for supervision and trained personnel at all times makes home use extremely unwise". CFOC 4th ed. Standard 6.2.4.4 p.p. 295.

### **Compliance Guidelines**

- Supervision at a trampoline means a caregiver is standing close enough to be able to touch the trampoline.
- It is a rule violation if school-age children are outside by themselves and there is an accessible trampoline.

### **Risk Level**

High

### **Corrective Action for 1st Instance**

Citation and CMP Warning

## **(12) The provider shall ensure that there are no entrapment hazards on or within the use zone of any piece of stationary play equipment.**

### **Rationale/Explanation**

All openings in pieces of play equipment should be designed too large for a child's head to get stuck in or too small for a child's body to fit into, in order to prevent entrapment and strangulation. Any equipment opening between three and one-half inches and nine inches in diameter presents the potential for head entrapment. Similarly, openings between three-eighths inch and one inch can cause entrapment of the child's fingers. CFOC 4th ed. Standard 6.2.1.9 p.p. 290.

### **Compliance Guidelines**

- This rule only applies to entrapment hazards where a child's feet cannot touch the floor, ground, or designated play surface (with the exception of ladders).
- On play equipment ladders, there shall be no entrapment hazards where a child's feet cannot touch the floor or ground.
- An opening directly under a platform and higher than 48 inches from any surface a child could climb on will not be considered an entrapment hazard.

To determine compliance with this rule:

- Measure from the floor or ground (or other play surface) to the bottom of the opening to determine whether a child's feet could touch the ground. A child's feet could not touch the ground if:
  - For infants or toddlers: the bottom of the opening is higher than 23¼ inches above the ground.
  - For preschoolers: the bottom of the opening is higher than 25¼ inches above the ground.
  - For school-age children: the bottom of the opening is higher than 33 inches above the ground.
- If the stationary play equipment is used by children of different age groups, refer to the measurement that applies to the youngest children who are allowed to use the equipment.
- If the opening is at a height where a child's feet could not touch the ground, measure the size of the opening to determine if it is an entrapment hazard.

### **Risk Level**

High

### **Corrective Action for 1st Instance**

Citation and CMP Warning

## **(13) The provider shall ensure that there are no strangulation hazards on or within the use zone of any piece of stationary play equipment.**

### **Rationale/Explanation**

A strangulation hazard is something on which a child's clothes or drawstrings could become caught, or something in which a child could become entangled.

Strangulation is the leading cause of playground fatalities. Some of these deaths occur when drawstrings on sweatshirts, coats, and other clothing get caught in gaps in the equipment. The area on top of slides is one potential trouble spot. CFOC 4th ed. Appendix EE. p.p. 534.

### **Compliance Guidelines**

- Strangulation hazards are typically caused by 1) hardware or small equipment components that protrude out from a surface, 2) hardware that forms a hook or leaves a gap or space between components, and 3) hanging ropes, cords, wire, or chains that are long enough to encircle a child's neck.
- Since the use zone surrounds the play equipment, including the area above the equipment, there cannot be tree branches or another object that creates a strangulation hazard in the use zone above the equipment.

#### *Protrusions*

Strangulation hazards caused by protrusions include:

- Bolt ends that extend more than two threads beyond the face of the nut unless the bolt end is facing straight down.
- A bolt, screw, or other protrusion which increases in size or diameter as it moves away from the surface (e.g. a bolt with a large bolt head that is not flush with the surface).



- A bolt, screw, or other protrusion angled upward from a horizontal plane that fails the protrusion gauge test.
  - Loose handholds on climbing walls.
- To assess protruding elements on pieces of playground equipment a licenser will use gauges designed for inspecting playground equipment.

### *Gaps or Openings*

Strangulation hazards caused by hardware gaps or space between components include:

- A hardware connector, such as an S- or C-hook, that has a gap or opening greater than .04 of an inch (the edge of a dime) and the opening does not face downward.



To assess gaps on play equipment:

- All connectors such as S- and C-hooks must be checked, no matter where they are located on a piece of equipment, except those that are:
  - At the top of a free standing swing higher than 8 feet.
  - At the top of a swing with a crossbar that is higher than 8 feet.
- Use a dime or the wire hook tool to measure the width of the gap or space.
  - When the dime or tool does not fit in the gap, it is not a strangulation hazard.
  - When the dime or wire tool fits into the gap and the gap angles upward, it is a strangulation hazard.
- CCL does not assess gaps at the top of slide chutes.

### *Hanging Ropes, Cords, Chains*

Strangulation hazards caused by ropes, cords, chains, etc. include:

- Hanging ropes, cords, wires, or chains that are 12 inches or longer and can make a loop 5 inches in diameter, except ropes, cords, wires, or chains with swings or tetherballs attached to the bottoms of them.
- Ropes, cords, twine, etc. that hang into the use zone of a piece of playground equipment and are attached to something solid.

To assess ropes, cords, chains, twine, etc. for possible strangulation hazards:

- Measure the rope, cord, or chain to determine if it is 12 inches or longer.
- Determine if it can make a loop that is 5 inches in diameter.
  - When the rope is not 12 inches or longer and cannot make a 5-inch loop, it is not a strangulation hazard.
  - When the rope is 12 inches or longer and can make a 5-inch loop, it is a strangulation hazard if attached to a solid structure or other object.

The following equipment components are not out of compliance:

- Protrusion or strangulation hazards on the underside of platforms that are 48 inches or higher.
- Protrusions on the top crossbar of free standing swings when the top of the swing is higher than 8 feet tall and there is not a horizontal bar between the support poles, nor is the swing

attached to any other component or platform.

- Protruding parts that are molded as a part of the design for dramatic play, such as the eyepiece of a telescope or the ear of an animal (as long as the part is in good repair and no parts are missing).
- Handholds and foot bars that are designed for that purpose, such as those found on spring rockers.
- A bolt end or other protruding hardware in recessed areas unless it extends past the recessed area.
- Ropes or cords suspending a tetherball or swing.

### **Risk Level**

High

### **Corrective Action for 1st Instance**

Citation and CMP Warning

## **(14) The provider shall ensure that there are no crush, shearing, or sharp edge hazards on or within the use zone of any piece of stationary play equipment.**

### **Rationale/Explanation**

Playground injuries often involve pinching, catching, or crushing of body parts or clothing by equipment mechanisms. CFOC 4th ed. Standard 6.2.1.7 p.p. 290.

Anything that could crush or shear limbs should not be accessible to children on a playground. Crush and shear points can be caused by parts moving relative to each other or to a fixed part during a normal use cycle, such as a seesaw. CPSC Standard 3.1 p.p. 14.

Any sharp or protruding surface presents a potential for lacerations and contusions to the child's body. CFOC 4th ed. Standard 6.2.1.8 p.p. 290.

### **Compliance Guidelines**

For crush hazards, it is a rule violation if:

- A disc swing hanging from a tree or frame touches the trunk of the tree or the frame when the swing is stretched to its full length.
- Two moving parts on a piece of equipment come together in such a way that they could crush a child's fingers, toes, or other body part.

For shearing hazards, it is a rule violation if:

- There are two pieces of equipment or two parts of a piece of equipment that move against each other in such a way that they could sever a child's fingers, toes, or other body parts.

For sharp edge hazards, it is a rule violation if:

- There is a sharp point or edge that could cut or puncture a child's skin on a piece of equipment's play surface or in a use zone. This includes any play surface that the children usually come in contact with, for example, a platform, an equipment part commonly touched

by the children, the hand rail on a slide, the slide surface, etc.

Additional guidelines:

- Since the use zone surrounds the play equipment, including above the equipment, there cannot be hard or inflexible tree branches or any other object that creates a crush, shearing, or sharp edge hazard in the use zone above the equipment.
- A molded plastic steering wheel that is part of a piece of play equipment will not be assessed as a crush hazard.
- It is not out of compliance when the movement between two pieces of equipment or two parts of a piece of equipment is minimal and would be unlikely to cause contusions, lacerations, abrasions, amputations, or fractures during use.

### **Risk Level**

High

### **Corrective Action for 1st Instance**

Citation and CMP Warning

**(15) The provider shall ensure that there are no tripping hazards such as concrete footings, tree stumps, tree roots, or rocks within the use zone of any piece of stationary play equipment.**

### **Rationale/Explanation**

Tripping is one of the hazards listed by CPSC to be most commonly associated with injury. CFOC 4th ed. Standard 5.3.1.1 p.p. 237-238.

### **Compliance Guidelines**

In addition to those listed in rule, other tripping hazards include:

- Weed barrier that is pulled up.
- An object such as a tire used to cushion an equipment footing unless the object is flush to the ground.
- The leash or rope of a tethered animal if it can reach into the use zone of a piece of play equipment.
- Metal rods in horseshoe pits that are in the use zone of outdoor play equipment.
- Equipment frames or supports that are not part of the original equipment or are not directly under a platform.

The following are not considered tripping hazards:

- Mats that are placed under equipment as cushioning.
- Poles on a tent-type sandbox or canopy unless the poles are in the use zone of another piece of equipment.
- Equipment frames or supports that are part of the original equipment or are directly under a platform.
- Moveable objects (e.g. tricycles, toys, and other hard objects) that are left in the use zone of stationary play equipment when the equipment is not being used.
- Moveable objects that are left in a use zone by children, but are immediately removed from

the area.

**Risk Level**

Moderate

**Corrective Action for 1st Instance**

Citation Warning