

## CHAPTER 195

## CARNIVAL-AMUSEMENT RIDES

## Authority

N.J.S.A. 5:3-31 et seq., specifically 5:3-36.

## Source and Effective Date

R.1993 d.343, effective June 14, 1993.  
See: 25 N.J.R. 1832(a), 25 N.J.R. 2896(a).

## Executive Order No. 66(1978) Expiration Date

Chapter 195, Carnival-Amusement Rides, expires on June 14, 1998.

## Chapter Historical Note

This chapter was adopted pursuant to authority of N.J.S.A 5:3-31 et seq. and were filed and became effective on June 26, 1975, as R.1975 d.189. See: 7 N.J.R. 370(c).

1978 Revisions: Amendments to this chapter became effective August 1, 1978 as R.1978 d.239. See: 10 N.J.R. 257(b), 10 N.J.R. 347(a).

1979 Revisions: Amendments became effective May 1, 1979 as R.1979 d.168. See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

1983 Revisions: This chapter was readopted in accordance with the "sunset" provisions of the Executive Order 66(1978) effective August 17, 1983. See: 15 N.J.R. 1002(a), 15 N.J.R. 1447(b).

1986 Revisions: Amendments to the chapter and new subchapter 6 became effective June 16, 1986 as R.1986 d.222. See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

1988 Revisions: This chapter was readopted pursuant to Executive Order 66(1978) effective June 24, 1988 and with amendments effective July 18, 1988 as R.1988 d.333. See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Pursuant to Executive Order No. 66(1978), Chapter 195 was readopted as R.1993 d.343. See: Source and Effective Date. Subchapter 7, Special Provisions for Bungee Jumping Operations, was adopted as Emergency New Rules, R.1993 d.244, effective May 3, 1993 (to expire July 2, 1993). See: 25 N.J.R. 2128(a). The provisions of R.1993 d.244 were readopted as R.1993 d.374, effective July 2, 1993. See: 25 N.J.R. 3500(a). See, also, section annotations for specific rulemaking activity.

## Law Review and Journal Commentaries

What Price Human Flight? Bungee Jumping Accidents Indicate Need for More Expeditions Regulation of Potentially Hazardous Activities. Thomas H. Ehrhardt, 25 Rutgers L.J. 853 (Spring 1994).

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## SUBCHAPTER 1. GENERAL PROVISIONS

### 12:195-1.1 Title and citation

This regulation shall be known and may be cited as Chapter 195, Carnival-Amusement Rides of Title 12, N.J.A.C.

### 12:195-1.2 Purpose

The purpose of this Chapter is to provide reasonable standards for the design, construction and operation of amusement rides for the safety of the public.

### 12:195-1.3 Scope

(a) This chapter shall apply to:

1. An amusement ride subject to the Carnival-Amusement Rides Act, N.J.S.A. 5:3-31 et seq.;
2. An amusement ride as defined in N.J.A.C. 12:195-2.1;
3. Any mechanical device which carries or conveys passengers along, around, or over a fixed or restricted route or course for the purpose of giving its passengers amusement, pleasure, thrills or excitement and including, among others:
  - i. A water slide exceeding 15 feet in height; and
  - ii. A water amusement ride as defined in N.J.A.C. 12:195-2.1; and
4. Any passenger or gravity propelled ride when located in an amusement area or park in which there are other rides covered by the Act.

(b) This chapter shall not apply to:

1. A locomotive weighing more than seven tons, operating on a track the length of which is one-half mile or greater, the gauge of which is three feet or greater, and the weight of which is at least 60 pounds per yard;
2. Any single-passenger manually, mechanically or electrically operated, coin-operated ride, which is customarily placed, singly or in groups, in a public location and which does not normally require the supervision or services of an operator; or
3. A passenger or gravity propelled ride that is not a mechanical device and is not located in an amusement area or park.

(c) The height of a water slide as described in (a)3i above shall be the difference in elevation between the point of entry (top) and the point of discharge (bottom) of the slide.

(d) A locomotive falling within the scope of (b)1 above shall be under the jurisdiction of the New Jersey Department of Transportation for the purpose of safety inspection.

As amended, R.1979 d.168, eff. May 1, 1979.

See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

New Rule R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Old text was deleted and new text substituted.

### 12:195-1.4 Documents referred to by reference

(a) The availability of standards and publications referred to in this chapter is explained in N.J.A.C. 12:195-6.

(b) The standards listed below have been utilized in the development of this rule, when appropriate:

1. ASTM F 698—1988, Physical Information to be provided for Amusement Rides and Devices;
2. ASTM F 747—1989, Definitions of Terms Relating to Amusement Rides and Devices;
3. ASTM F 770—1988, Practice for Operation Procedures for Amusement Rides and Devices;
4. ASTM F 846—1992, Guide for Testing Performance of Amusement Rides and Devices;
5. ASTM F 853—1991, Practice for Maintenance Procedures for Amusement Rides and Devices; and
6. ASTM F 893—1987, Guide for Inspection of Amusement Rides and Devices.

New Rule R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Dates for the standards in (b) have been changed.

Amended by R.1993 d.334, effective July 6, 1993.

See: 25 N.J.R. 1832(a), 25 N.J.R. 2896(a).

### 12:195-1.5 (Reserved)

### 12:195-1.6 Validity

Should any section, paragraph, sentence or word of this chapter be declared for any reason to be invalid, such decision shall not affect the remaining portions of this chapter.

### 12:195-1.7 Existing equipment

Maintenance of existing equipment shall be in accordance with this chapter. Any replacements of existing equipment shall also be in conformity with this chapter.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Added text "of existing equipment".

**12:195-1.8 Compliance**

(a) Every owner, ride operator and the public using an amusement ride shall comply with this Chapter.

(b) An amusement ride which is not in compliance with this Chapter shall not be used or occupied, except as provided in subsection (c) below.

(c) Where only individual units of a ride, such as cars, seats or other carriers are defective and not in compliance with this Chapter, such units shall be taken out of service and clearly marked with a sign reading "Out of Service"; provided, however, such defects do not jeopardize the safety of the entire ride.

(d) The owner of an amusement ride shall not permit a person under the influence of alcohol or narcotics to enter any amusement ride.

(e) The Commissioner shall reserve the right to establish the height restriction, guardian restriction, and classification of any ride.

(f) The Commissioner in accordance with (e) above, shall maintain a list containing approved height restrictions for major rides.

(g) The Commissioner shall classify all amusement rides as "major ride" or "kiddie ride".

(h) The owner of a major ride shall not permit a passenger under 60 inches in height on the ride except when:

1. The approved height restriction specifically listed for the ride is less than 60 inches and the passenger meets it; or
2. The passenger, being a child not meeting the approved height restriction, is accompanied, elbow to elbow or front to back, on the ride by a guardian; or
3. The passenger, other than a child, not meeting the approved height restriction is accompanied, elbow to elbow or front to back, on the ride by a guardian.

Amended by R.1979 d.168, effective May 1, 1979.  
See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

**12:195-1.9 Inspection fee and permit**

(a) Thirty days before commencing operations and in each year thereafter, an owner shall apply for a permit with an application form furnished by the Division and containing such information as the Division may require. The application shall be accompanied by a certificate of insurance, bond, or other security indicating that the owner has complied with N.J.A.C. 12:195-1.14.

(b) After commencing operations, 72 hours advance notice must be received by the Division before any additional rides or "book-ons" are placed in operation.

(c) No amusement ride shall be operated without a permit, except that a ride covered by a valid permit to operate for the preceding year may continue to operate for the current year, until reinspected. This carry-over permit shall be known as a temporary permit.

(d) All amusement rides shall be inspected by the Division before they are originally put into operation for the public use and thereafter at least once every year, unless authorized to operate on a temporary permit.

(e) Once an application for a permit has been approved, the appropriate officials of the Division of Workplace Standards shall inspect the amusement ride for which an annual fee shall be charged at the rate of \$300.00 for each super ride, \$200.00 for each major ride and \$100.00 for each kiddie ride.

(f) After inspection, if the amusement ride is found to comply with this Chapter, the Division shall authorize the ride for use by the public provided the inspection fee has been paid. The permit to operate shall not be issued until the inspection fee has been paid.

(g) Annual permits shall be issued for a period commencing January 1, and expiring the following December 31.

(h) A copy of the permit issued by the Division shall be continuously displayed in the vicinity of the entrance to the ride when the ride is in use. The permit shall be encased in such a manner as to be protected from weather conditions. Duplicates of such permits shall be issued by the Division at a cost of \$10.00 for each permit.

(i) The Division shall order in writing a temporary cessation of operation of an amusement ride if it has been determined after inspection to be hazardous or unsafe. Operation of the ride shall not be resumed until the ride has been reinspected by a designee of the Division and it is determined by the designee to be safe for operation.

(j) The owner of an amusement ride shall notify the Commissioner when ownership is transferred to another owner. In such a case the new owner shall obtain a new permit.

Amended by R.1986 d.222, effective June 16, 1986.  
See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

(h) substantially amended.  
Amended by R.1991 d.610, effective December 16, 1991.  
See: 23 N.J.R. 2950(a), 23 N.J.R. 3816(a).  
Revised (d).  
Amended by 1994 d.581, effective November 21, 1994.  
See: 26 N.J.R. 3594(a), 26 N.J.R. 4630(a).

**12:195-1.10 Filing of notice of intent to operate**

The owner of a new amusement ride or the owner of an amusement ride who makes any additions or alterations that affect the safety of the ride shall file with the Division a notice of his intentions.

As amended, R.1979 d.168, effective May 1, 1979.  
See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

### 12:195-1.11 Maintenance and inspection records

(a) The owner shall retain at all times up-to-date maintenance and inspection records for each amusement ride.

(b) These records shall contain the following information:

1. Date and nature of all inspections, whether by the Division or the owner.
2. Any violation of the rules and types of action taken to rectify the violation.
3. All break-downs or repairs of any major mechanical part.

### 12:195-1.12 Reporting

(a) All accidents resulting in injuries or fatalities incurred during the operation of any amusement ride shall be reported to the Division by the owner within 48 hours of occurrence on a form provided by the Division.

(b) Any major breakdown or malfunction of a ride shall be reported immediately by the owner to the Division by telephone or other means.

(c) All accidents resulting in serious injury or death shall be reported to the Division immediately by telephone or other means.

As amended, R.1979 d.168, effective May 1, 1979.

See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Added text to (b) "immediately by the owner"; and "in writing" deleted and "other means" substituted.

### 12:195-1.13 Serious injury or death to a member of the public

(a) When any accident occurs at an amusement ride which results directly or indirectly in a serious injury or death to a member of the public, the amusement ride shall be:

1. Shut down;
2. Not operated or test run until the Division arrives at the scene of the accident to conduct an investigation; and
3. Secured to prevent operation until the Division has conducted a full investigation and permits operation with passengers.

As amended, R.1979 d.168, effective May 1, 1979.

See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Deleted "with passengers" from (a)3.

### 12:195-1.14 Insurance, bond or other security

(a) No person shall operate a ride unless at all times there is in existence:

1. A policy of insurance in an amount of not less than \$100,000 insuring the owner or operator against liability for injury suffered by persons riding the amusement ride; or
2. A bond in a like amount; provided, however, that the appropriate liability of the surety under such bond shall not exceed the face amount thereof; or
3. Cash or other security acceptable to the Board.

(b) The policy shall be procured from one or more insurers acceptable to the Commissioner of Insurance, and either:

1. Licensed to transact insurance in the State of New Jersey; or
2. Approved as surplus line insurers pursuant to N.J.S.A. 17:22-6.45.

(c) The bond as required by (a)2 above shall provide at least \$100,000 for each ride.

(d) The bond of (a)2 above shall be in such form and content as to be acceptable to the Department of Insurance.

(e) The cash or other security shall be assigned to meet carnival-amusement ride liability judgments only.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Added (c)-(e).

## SUBCHAPTER 2. DEFINITIONS

### 12:195-2.1 Definitions

The following words and terms, when used in this Chapter, shall have the following meanings unless the context clearly indicates otherwise:

"Accepted engineering practice" means that which conforms to accepted principles, tests, or standards of accredited authorized agencies, and to standards or generic principles and practices of safety engineering.

"Act" means the Carnival-Amusement Rides Safety Act, N.J.S.A. 5:3-31 et seq.

"Air bag" means a device which cradles the body using a multi-cell release breather system to dissipate the energy due to a fall, thereby allowing the jumper to land without an abrupt stop or bounce.

"Amusement ride" means any mechanical device or devices, including water slides exceeding 15 feet in height, which carry or convey passengers along, around, or over a fixed or restricted route or course for the purpose of giving its passengers amusement, pleasure, thrills or excitement, and any passenger or gravity propelled ride when located in an amusement area or park in which there are other rides covered by the Act; provided, however, that this shall not include locomotives weighing more than seven tons, operating on track the length of which is one-half mile or greater, the gauge of which is three feet or greater, and the weight of which is at least 60 pounds per yard. (See "Water amusement ride.")

"ANSI" means the American National Standards Institute.

"Approved" means acceptable to the Commissioner. Any product certified, or classified, or labeled, or listed by a nationally recognized testing agency may be deemed to be acceptable, unless specifically banned by order of the Commissioner.

"Approved operating site" means the area including the preparation area, the jump space, the landing area and the recovery area as reflected on the site plan drawings submitted by the operator pursuant to this chapter in conjunction with the registration of a bungee jumping operation and as approved by the Commissioner.

"Approving authority" means the Commissioner of Labor.

"Binding" means material used to wrap and hold together the jumper's ankles which is tied together and attached to the bungee cord.

"Board" means the Advisory Board on Carnival-Amusement Ride Safety.

"BOCA" means Building Officials and Code Administrators International.

"Bungee cord" means the elastic rope attached to the jumper which lengthens and shortens to produce a bouncing action.

"Bungee cord loop end connections" means the loop of cord generally provided by the manufacturer.

"Bungee cord end connections" means a static line runner commonly made from tubular nylon webbing.

"Bungee jumping" means the activity where a person free falls from a height and the person's descent is limited by his or her attachment to a bungee cord.

"Bungee jumping operation" means all activity associated with bungee jumping.

"Carabiner" means a shaped metal device of the spring loaded design with a gate used to connect sections of the bungee cord, jump rigging, equipment, or safety gear as well as all other life supporting activities.

"Carnival ride". See Amusement Ride.

"Catapulting, launching or reverse jumping" means the practice of stretching the bungee cord while attached to the jumper who is held on the ground, then released and propelled upward.

"Child" means a person 12 years of age and under.

"Commissioner" means the Commissioner of Labor of the State of New Jersey or his authorized designee.

"Containing device" means a strap, belt, bar, gate or other safety device designed to prevent accidental or inadvertent dislodgement of a passenger from a ride but which does not actually provide physical support.

"Controlled load lowering" means a system or device on the power train, other than the load hoist brake, which can regulate the lowering rate of speed of the hoist mechanism.

"Department" means the New Jersey Department of Labor.

"Division" means the Division of Workplace Standards, New Jersey Department of Labor, CN 054, Trenton, New Jersey 08625-0054.

"Double or tandem jumping" means the practice of two or more individuals jumping simultaneously from the same jump platform, whether from a common bungee cord or individual bungee cords.

"Dynamic load" means the load placed on the rigging and attachments by the free fall, including the bouncing movements, of the jumper.

"Equipment" means each component which is utilized in a bungee jumping operation, including power or manually operated devices to raise, lower and hold loads.

"Fence" means a permanent or temporary structure designed and constructed to prevent public intrusion.

"Guardian" means a person 16 years of age and over.

"Guardian restriction" means a condition placed on a major ride where a passenger must be accompanied on the ride by a guardian.

"Harness" means an assembly to be worn by a jumper and attached to a bungee cord.

"Height restriction" means a stature requirement for passengers to be permitted on a specific major ride which is

contained on the list of height restrictions maintained by the Commissioner in accordance with N.J.A.C. 12:195-1.8(f).

“Incident” means an event that does or could result in injury to a person, damage to equipment, or the interruption or stopping of a bungee jumping operation.

“Jump area” means the ground level area of the jump zone.

“Jump height” means the distance from the jump point to the position on the ground at which an object dropped from the jump point would impact, exclusive of any air bag or other impediments.

“Jump master” means a person at least 18 years of age who is responsible for the supervision and control of the entire bungee jumping operation.

“Jump operator” means a person at least 18 years of age who assists the jump master to prepare a jumper for jumping.

“Jump point” means the position from which the jumper leaps from the platform.

“Jumper” means a person at least 18 years of age who leaps from a platform while attached to a bungee cord.

“Jumper weight” means the weight of the jumper, exclusive of any bungee jumping equipment or apparatus, which is used to select the proper bungee cord.

“Jump zone” means the space allowed for the maximum possible movements of the jumper or any part of the jumper while attached to a bungee cord.

“Kiddie ride” means a ride designed for children 12 years of age and under.

“Landing area” means the surface area on which the jumper is lowered.

“Launching.” See “catapulting.”

“Lowering system” means any manual or mechanical equipment capable of lowering a jumper to the designated landing area.

“Nationally recognized testing agency” means a laboratory, such as the Underwriters’ Laboratories, Inc., or the Factory Mutual Engineering Corporation or any similar testing organization acceptable to the Commissioner.

“NFPA” means the National Fire Protection Association.

“N.J.A.C.” means the New Jersey Administrative Code.

“N.J.S.A.” means the New Jersey Statutes Annotated.

“Office of Safety Compliance” means the Office of Safety Compliance in the Division of Workplace Standards, New Jersey Department of Labor, CN 386, Trenton, New Jersey 08625-0386.

“Operating manual” means the document that contains the required procedures and forms for the safe operation of the bungee jumping activity at the stated site.

“Owner” means a person who owns or leases the operations of a carnival or amusement ride, including the State or any of its subdivisions.

“Passenger tramway” means a device used to transport passengers in cars on tracks or suspended in the air, by the use of steel cables, chains or belts or by ropes, and usually supported by trestles or towers with one or more spans.

“Permit” means permit to operate issued annually by the Division to an owner for authorization to operate an amusement ride.

“Platform” means the designated part of the structure from which the jumper leaps.

“Preparation area” means a separate area on the support structure or part where the jumper is prepared for jumping.

“Qualified person” means an individual assigned by the owner who has the degree of competence necessary to perform the work on an amusement ride so that the ride will be safe.

“Recovery area” means an area near the landing area where the jumper may choose to recover from the jump before exiting the bungee jumping operation site.

“Restraining device” means a safety belt, harness, chair, bar or other device which affords actual physical support, retention or restraint to the passenger of a ride.

“Reverse jumping.” See “catapulting.”

“Ride operator” means any person or persons actually engaged in or directly controlling the operations of a carnival or amusement ride.

“Rigging system” means a combination of components that connect the bungee cord to the jumper and the bungee cord to the structure, lowering/raising device or platform. The rigging system includes ropes, pulleys, carabiners, shackles and lowering/raising devices.

“Rope” means wire rope.

“Safety hook” means a hook with a latch to prevent the rigging or loads from accidentally slipping off the hook.

“Sandbagging” means the practice of loading excess weight to a jumper intending to release the excess weight at the bottom of the jump, thus gaining extra momentum on the rebound.

“Scale” means a weighing device or apparatus which has been approved as to type, construction and operation by the Superintendent of the State Office of Weights and Measures pursuant to N.J.S.A. 51:1-93.

“Serious injury” means a hurt to a member of the public which requires treatment by a doctor, such as a fracture, or a condition requiring admittance to a hospital for at least 24 hours.

“Shall” means a mandatory requirement.

“Structure” means a permanent building or tower used for bungee jumping.

“Stunt jumping” means the combining of any other activity with bungee jumping.

“Tandem jumping.” See “double jumping.”

“Temporary permit”. See N.J.A.C. 12:195-1.9(b).

“Water amusement ride” means an amusement ride where water is used as an integral part of the ride and could expose the public to a safety and health hazard.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Amended definitions “amusement ride”, “Commissioner”, “Division”, “office of safety compliance”.

Emergency amendment, R.1993 d.244, effective May 3, 1993 (to expire July 2, 1993).

See: 25 N.J.R. 2128(a).

Added new definitions and revised “owner”.

Adopted concurrent proposal, R.1993 d.374, effective July 2, 1993.

See: 25 N.J.R. 3500(a).

## SUBCHAPTER 3. DESIGN AND CONSTRUCTION

### 12:195-3.1 Design

(a) All rides shall be approved.

(b) All amusement rides shall be designed and constructed in accordance with accepted engineering practice, and all reasonably foreseeable hazards which could arise from use or probable misuse of the ride shall be guarded against in the design insofar as it is feasible to do so. “Accepted engineering practice” means that which conforms to accepted principles, tests or standards of accredited authorized agencies, and to standards or generic principles and practices of safety engineering.

(c) All amusement rides shall be designed, constructed and installed so as to withstand any normal stresses to which they may be subjected.

(d) Before being used by the public, amusement rides shall be so placed or secured with blocking, cribbing, outriggers, guys or other means as to be stable under all operating conditions.

(e) All amusement rides, such as, but not limited to, passenger tramways, where restoration of electrical power could create a hazard, shall be provided with a main disconnect switch capable of being locked only in the OFF position.

(f) The path of travel of an amusement ride shall have a clearance adequate to insure that a passenger on the ride cannot be injured by contacting any structural member or other fixed object when the passenger is in the riding position.

(g) All structures used in connection with amusement rides shall be so designed and constructed as to carry safely all loads to which such structures may be subjected.

As amended, R.1979 d.168, eff. May 1, 1979.

See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

Amended by R.1986 d.222, eff. June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Text deleted from (b) and new text substituted; (g) added.

### 12:195-3.2 Ride entry and discharge

Safe and adequate means of entry and discharge from each ride shall be provided. This safe and adequate means of entry and discharge shall not be construed to mean exits, means of access or means of egress.

### 12:195-3.3 Means of access and egress

(a) Safe and adequate means of access and egress from amusement rides shall be provided.

(b) At least two means of egress remote from each other shall be provided from each floor, tier, room or balcony in structures which house amusement rides.

(c) Access to the means of egress shall be marked by readily visible signs in all cases where it is not immediately visible to the passengers.

(d) No means of egress shall be less than 22 inches in width.

(e) The width of a stairway shall be taken as the length of the treads between stringers. The width of a doorway shall be taken as the width of the door.

(f) The maximum travel distance from the most remote point in any room or enclosed space to an open safe outside space shall be not greater than that listed below:

1. 100 feet in unsprinklered construction;
2. 150 feet in sprinklered construction; and
3. 25 feet in dead ends.

(g) Means of access and egress shall have protection from adjacent hazards and protection from falling by use of rails, enclosures, barriers or similar means.

(h) Means of access and egress shall be free from debris, obstructions, projections and slipping, tripping and other hazards.

(i) The vertical clearance in passageways shall not be less than seven feet.

(j) Means of access or egress shall have either stairways or ramps and connecting landings or platforms where the public enter or leave an amusement ride that is above or below grade.

(k) Stairways, passageways, ramps, landings or platforms shall be not less than 22 inches in width for single lane passage or 44 inches for double lane passage. Landings or platforms shall not be less than 3 feet long measured in the direction of travel.

(l) Stair treads shall be at least nine inches deep exclusive of nosing, and the height of rise shall not exceed eight inches. Between any two connecting levels the treads shall be of uniform depth and the risers shall be of uniform height. The slope of ramps shall not exceed that required in N.J.A.C. 12:195-4.6(a).

(m) Handrails shall be provided on both sides of all stairways of four or more risers connecting adjoining levels whose difference in elevation is 30 inches or more.

(n) Handrails shall be provided on both sides of landings, platforms or ramps 30 inches or more above grade.

(o) Handrails shall be at least 30 inches above the ramp surface or nose of steps and 42 inches above the landings.

(p) The distances between handrails shall not be less than 18 inches for single lane passage and 36 inches for a double lane passage.

(q) Two intermediate rails spaced equally apart or equivalent construction to prevent a passenger from falling through the handrails shall be provided with all handrails.

(r) Stairways and ramps requiring handrails in accordance with (m) and (n) above which are more than eight feet wide shall be provided with railings dividing the widths into not more than eight feet, and not less than the widths of (k) above.

(s) When ride entrances are provided, ride entrances shall have a passenger waiting line retaining chain, gate or device.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Substituted "vertical" for "head" in (i).

#### **12:195-3.4 Emergency brakes and anti-roll back devices**

(a) If cars or other components of an amusement ride may collide upon failure of normal controls, emergency brakes sufficient to prevent such collisions shall be provided.

(b) On rides which make use of inclined tracks, automatic anti-roll back devices shall be installed to prevent backward movement of the passenger-carrying units in case of failure of the propelling mechanism when such backward movement could result in injury to member of the public.

#### **12:195-3.5 Signal system**

(a) Signal systems for the starting and stopping of amusement rides shall be provided where the operator of the ride does not have a clear view of the point at which passengers are loaded or unloaded.

(b) Any code of signals adopted for the operation of any amusement ride shall be printed and kept posted at both the operator's and signalman's stations. All persons who may use these signals shall be carefully instructed in their use.

(c) Signals for the movement or operation of an amusement ride shall not be given until all passengers and other persons who may be endangered are in a position of safety.

#### **12:195-3.6 Protection against moving parts**

(a) An amusement ride shall not be used or operated while any person is so located as to be endangered by it. Areas in which persons may be so endangered shall be fenced, barricaded or otherwise guarded against public intrusion.

(b) Machinery used in or with an amusement ride shall be enclosed, barricaded or otherwise effectively guarded against contact. Guards removed for maintenance purposes shall be replaced before normal operation is resumed.

#### **12:195-3.7 Speed-limiting devices**

An amusement ride capable of exceeding its maximum safe operating speed shall be provided with a maximum speed-limiting device.

#### **12:195-3.8 Passenger-carrying rides**

(a) The interior and exterior parts of all passenger-carrying amusement rides with which a passenger may come in contact shall be smooth and rounded, free from sharp, rough or splintered edges and corners, with no protruding studs, bolts, screws or other projections which might cause injury.



(b) Interior parts upon which a passenger may be forcibly thrown by the action of the ride shall be adequately padded.

(c) Amusement rides which are self-powered and which are operated by a passenger shall have the driving mechanism so guarded and the guard so secured in place as to prevent passengers from gaining access to the mechanism.

(d) Handholds, bars, footrests and other equipment as may be necessary for safe entrance and exit to and from amusement rides shall be provided and maintained in a safe condition. Such equipment shall be of sufficient strength to support the passengers.

(e) Restraining, containing or cushioning devices shall comply with this subsection.

1. Restraining, containing or cushioning devices or a combination of these shall be provided and used on all amusement rides where:

- i. Centrifugal and other forces or mechanical malfunction could unseat or dislodge a passenger, or
- ii. Inadvertent movement of a passenger could cause injury to the passenger or any other passenger, or
- iii. The speed of the ride presents a hazard to a passenger.

2. Restraining, containing or cushioning devices shall be designed, constructed, installed and maintained so as to provide safe support for passengers.

3. Anchorage for restraining, containing or cushioning devices shall have strength at least equal to the strength of such devices.

4. Fastening for restraining, containing or cushioning devices shall be of a type which cannot be inadvertently released by the passenger or by accidental means while the ride is in motion.

5. Amusement rides equipped with a safety bar, cage or other mechanically operated restraining device shall be equipped with a retiring cam or other device so designed that the safety bar, cage or other mechanically operated device cannot be released except at the point of loading or unloading.

6. Any safeguarding means in itself shall not be a hazard.

### 12:195-3.9 Passenger tramways

(a) Aerial Passenger Tramways, ANSI B77.1—1982 and B77.1b—1988 is incorporated herein by reference with the modifications as indicated in (b) below.

(b) The following are modifications to the standards as referenced in (a) above:

1. Sections 1.1 through 1.3 and section 8 are deleted.

2. Any standards relating to administration or reporting are deleted.

(c) Each owner engaged in passenger tramway operations shall protect the public by complying with the standards as referenced in (a) above.

(d) Where any conflict occurs between the standards referenced in (a) above and any other rule in this chapter, the latter shall prevail.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

(a)1 and 2 deleted.

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Substantially amended.

### 12:195-3.10 Electrical equipment

(a) The National Electrical Code, NFPA No. 70—1987 is incorporated by reference.

(b) Permanent wiring shall be subject to the following requirements:

1. All electrical wiring and equipment used for amusement rides or for lighting shall be installed and maintained in accordance with the code as referenced in (a) above.

2. The outlets of electrical power lines carrying more than 120 volts shall be clearly marked to show their voltage.

3. All electrical transformer substations shall be properly enclosed and proper warning signs shall be posted.

4. Electrical wiring and equipment located outdoors shall be of such quality and so constructed or protected that exposure to weather will not interfere with its normal operation.

5. Elevated power lines crossing access or other roads within the grounds of a carnival, or amusement park shall be suspended as to provide a vertical clearance of at least 12 feet from the road surface or three feet above any vehicle used within the grounds of a carnival or amusement park. A horizontal clearance of at least three feet shall be provided on each side of the normal passage space of vehicles.

6. Electrical conductors other than flexible cords and fixture wires shall be protected against overcurrent in accordance with their ampacities.

(c) Grounding:

1. No overcurrent protection device shall be installed in neutral or grounding conductors.

2. Where electrical power is supplied for an amusement ride by a generating system, the generator and all equipment shall be properly grounded.

3. All receptacles and attachments plugs shall be of the grounding type.

4. Each electrically powered amusement ride shall be effectively grounded. The grounding shall be made effective as to all non-current carrying metal parts which may become energized and which are exposed to contact by any person.

5. Grounding which does not have a resistance to ground of 25 ohms or less shall be augmented by one additional electrode of any of the types specified in section 250-83 of the code referenced in (a) above.

6. All electrical installations shall be properly grounded.

(d) Each electrically operated amusement ride not designed to be controlled directly by the passenger shall be provided with a disconnect power switch placed within easy reach of the operator.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Deleted (a)1 and 2; (a)6 added.

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Deleted rule and substituted code; substituted "as referenced" for "adopted".

### 12:195-3.11 Air compressors

(a) Air compressors, air compressor tanks and appurtenances used in connection therewith shall be designed, constructed, equipped and maintained to insure safe operation.

(b) Air compressor tanks and other receivers used in connection with air compressors shall comply with the provisions set forth at N.J.A.C. 12:90, concerning boilers, pressure vessels and refrigeration.

(c) Air compressor tanks and other air receivers used in connection with air compressors shall be inspected operationally at least once a year by a qualified person and a record of each inspection shall be kept.

(d) Air compressor tanks and other air receivers used in connection with air compressors shall have the maximum allowable working pressure conspicuously marked thereon.

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Deleted text in (b) "Chapter 90, Boilers ..." and substituted "the provisions set forth ..."

### 12:195-3.12 Fire prevention

(a) Fabrics constituting part of an amusement ride shall be flame resistant to meet the following field test: the application of a flame from a three-quarter inch paraffin candle for a period of one minute which does not cause the fabric to flash, nor support combustion, nor continue to flame for more than two seconds or glow for more than thirty seconds after removal of the test flame.

(b) Approved fire extinguishers shall be provided where necessary to secure reasonable and adequate protection from fire hazards.

(c) Flammable waste such as oily rags and other flammable materials shall be placed in covered metal containers which shall be kept in easily accessible locations. Such containers shall not be kept at or near exits.

(d) Gasoline and other flammable liquids and flammable gases when stored shall be kept in reasonably cool and ventilated places. Such liquids shall be in approved containers. Smoking and the carrying of lighted cigars, cigarettes or pipes is prohibited in any area where such liquids or gases are stored or are transferred from one container to another.

### 12:195-3.13 Load tests

(a) No passenger-carrying amusement ride of the following types shall be used or put into normal operation until it has withstood an annual load test without failure in any material respect:

1. Rides having suspended passenger seats or spaces;
2. Rides normally operated at speeds or with movements creating severe centrifugal forces;
3. Rides so elevated that structural failure is likely to cause passengers to be injured by falling;
4. Rides as to which the Commissioner has ordered such a test upon finding it necessary to assure safety.

(b) Each passenger seat or space shall be weighted with at least 150 pounds dead weight, except that in a ride intended only for small children, each seat or space shall be weighted with at least 75 pounds. While so loaded the ride shall be operated at maximum normal speed as to test the full operation of all control devices, rides, speed limiting devices, brakes and other equipment provided for safety.

(c) Unless a load test is made in the presence of the Commissioner, the manager of the ride shall cause to be filed with the Commissioner on a form provided by him a statement by either the manufacturer of the ride, or an insurance carrier lawfully doing business in this State and carrying public liability insurance on the ride, or a qualified licensed professional engineer showing whether the ride withstood the test without failure in any material respect and setting forth such other relevant information as the Commissioner may require. Until such a statement is so filed it shall be presumed that the ride has not withstood the test as required.

(d) A load test complying with (c) above when performed in another state shall be deemed acceptable, provided:

1. The statement required by (c) above is on a form substantially equivalent to the form provided by the Commissioner;

2. The agency providing the form enforces State rules substantially equivalent to this section; and

3. A copy of the statement is furnished to the Commissioner.

(e) If the ride fails to withstand a load test it shall be deemed unsafe and shall not be used until and unless it has withstood a subsequent load test without failure in any material respect. If the ride has withstood a load test without failure in any material respect, it shall be required to be so tested again before going into normal operation only if rebuilt or modified or if there are reasonable grounds to believe that a further test is necessary before the next required annual load test to assure safety and the Commissioner orders such test to be made.

#### 12:195-3.14 Non-destructive test

(a) The Commissioner may require all critical mechanical and structural components including but not limited to journals, shafts, spindles and pins not visible to the naked eye to be subjected to non-destructive testing by the owner or operator.

(b) The owner or operator shall prepare a report in writing of the non-destructive tests performed.

(c) The report of the non-destructive tests shall include the following:

1. Name of owner or operator;
2. Date and location of test;
3. Name of ride;
4. Serial number of ride;
5. Name of firm that conducted the test;
6. The type of non-destructive test performed; and
7. Results and certification of results.

(d) The report required in (b) above shall be submitted to the Commissioner. The owner or operator shall also advise the Commissioner what corrective action, if any, has been taken as a result of the non-destructive tests.

New Rule, R.1986 d.222, effective June 16, 1986.  
See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

#### 12:195-3.15 Identification and rating plates

(a) Every amusement ride shall be identified by the name and address of the manufacturer, if known; a trade or descriptive name; an identification number; the maximum safe number of passengers and the maximum safe speed.

(b) The required information shall be legibly impressed on a metal plate or equivalent and readily visible and legible at all times.

#### Reference

Recodified from 3.14.

#### 12:195-3.16 Rebuilt and modified rides

(a) If an amusement ride which has withstood a load test as required is thereafter materially rebuilt or so modified as to change its original action:

1. The ride shall be reidentified by a different name or identification number or both;
2. The ride shall be subject to all other provisions of this Chapter as if it were a new ride not previously used.

#### Reference

Recodified from 3.15.

#### 12:195-3.17 Assembly and disassembly

(a) The assembly and disassembly of an amusement ride shall be done by or under the immediate supervision of a qualified person.

(b) Assembly work shall be performed in a proper and workmanlike manner. Parts shall be properly aligned, and shall not be bent, distorted, cut or otherwise injured to force a fit. Parts requiring lubrication shall be lubricated in course of assembly. Fastening and locking devices, such as bolts, caps, screws, cotter pins and lock washers shall be installed where required for safe operation. Nuts shall be drawn tight, cotter pins shall be spread and lock nuts firmly set.

(c) Parts which are excessively worn or which have been materially damaged shall not be used. Close visual inspection of parts shall be made during assembly to discover such wear or damage and immediate inspection of fastening devices shall be made after assembly to assure that they have been properly installed.

(d) Persons engaged in the assembly or disassembly of amusement rides shall be provided with and shall use tools of proper size and design to enable the work to be done in a proper manner. Broken, damaged and unsuitable tools shall not be used.

(e) Assembly and disassembly of amusement rides shall be done under light conditions sufficient to permit the work to be properly performed and inspected.

(f) A sufficient number of persons to do the work properly shall be engaged for the assembly or disassembly of amusement rides. Persons not so engaged shall be prevented from entering the area in which the work may create a hazard.

(g) The owner of an amusement ride shall comply with the manufacturer's construction manual for the assembly and disassembly of the ride. The manufacturer's construc-

tion manual shall be kept with the amusement ride and shall be available for use by the Division.

### 12:195-3.18 Lighting

Amusement rides, access thereto, and means of egress therefrom, shall while in operation or occupied, be provided with illumination by natural or artificial means sufficient to guard against injuries to the public.

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Section recodified from 3.17. Old section "Proximity to high voltage lines" repealed.

### 12:195-3.19 Water quality

(a) Water impounded by the ride owner and used as an integral part of a water amusement ride, whether it be a part of a water contact ride or a water noncontact ride, which could expose the public to a safety or health hazard shall be maintained in a safe and sanitary condition in accordance with this section.

(b) The owner of any water amusement ride as described in (a) above shall provide evidence of the sanitary condition of such water when requested by the Office of Safety Compliance.

(c) In order to maintain the safe and sanitary condition of water in a water amusement ride, the owner of a water amusement ride shall disinfect with chlorine or other approved disinfecting agent.

(d) Impounded water, when in use, shall be:

1. Sufficiently clear to permit the bottom of the water reservoir at its deepest point to be visible from an outside edge of the reservoir.
2. Aesthetically pleasing, and
3. Free of floating or suspended matter.

### 12:195-3.20 Internal combustion engines

(a) Internal combustion engines for amusement rides shall be of adequate type, design and capacity to handle the design load.

(b) Where fuel tanks of internal combustion engines for amusement rides are not of adequate capacity to permit uninterrupted operation during normal operating hours, the amusement ride shall be closed down and unloaded or evacuated during the refueling procedure. The fuel supply shall not be replenished while the engine is running.

(c) Where an internal combustion engine for an amusement ride is operated in an enclosed area, the exhaust fumes shall be discharged to the outside.

(d) Internal combustion engines for amusement rides shall be located to permit proper maintenance and shall be protected by guards, fencing or enclosure.

### 12:195-3.21 Wire rope

(a) Wire rope on amusement rides shall be thoroughly examined periodically. Wire rope found to be damaged shall be replaced with new rope of proper design and capacity as per the manufacturer's data tag. Any of the following conditions shall be cause for rope replacement:

1. In running ropes, six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay.
2. In pendants or standing ropes, evidence of more than one broken wire in one rope lay.
3. Abrasion, scrubbing or peening causing loss of more than one-third of the original diameter of the outside individual wires.
4. Severe corrosion.
5. Kinking, crushing, bird-caging, or other damage resulting in distortion of the rope structure.
6. Heat damage.
7. Reduction from normal diameter of more than 3/64 inch for diameters up to and including 3/8 inch, 1/16 inch for diameters 8 1/8 inch to 1 1/2 inches, 3.32 inch for diameters 1 1/4 inches to 1 1/2 inches.
8. Bird-caging or other distortion resulting in some members of the rope structure carrying more load than others.
9. Noticeable rusting or development of broken wires in the vicinity of attachments. When this condition is localized in an operational rope, it may be eliminated by making a new attachment.

(b) Wire ropes used to support, suspend, bear or control forces and weights involved in the movement and utilization of tubs, cars, chairs, seats, gondolas, other carriers, the sweeps, or other supporting members of an amusement ride shall not be lengthened or repaired by splicing.

<sup>1</sup> So in original.

### 12:195-3.22 Hydraulic or pneumatic systems

(a) Hydraulic or pneumatic systems and other related equipment used in connection with amusement rides shall be free of leaks and maintained to insure safe operation at all times.

(b) An amusement ride which depends upon hydraulic or pneumatic pressure to maintain safe operation shall be provided with a positive means of preventing loss in hydraulic pressure that could result in injury to a passenger.

(c) Hydraulic or pneumatic lines shall be guarded so that sudden leaks or breakage will not endanger the passengers or the public.

Emergency amendment, R.1993 d.244, effective May 3, 1993 (to expire July 2, 1993).

See: 25 N.J.R. 2128(a).

Adopted concurrent proposal, R.1993 d.374, effective July 2, 1993.  
See: 25 N.J.R. 3500(a).

### 12:195-3.23 Manufacturer's information

(a) No new amusement ride shall be placed in service unless the following information as applicable is provided to the ride owner by the manufacturer of the ride:

1. A manufacturer's issued unique identifying number or code affixed to the ride in a permanent fashion;
2. A manufacturer's issued unique identifying number or code assigned to each manufactured ride type of the same structural design or components;
3. The date (month, year) determined by the manufacturer that the given ride met his required construction specifications;
4. The height, width, length and weight for each trailer necessary for the transport of a portable amusement ride;
5. The height, width, diameter and weight for the ride when it is in a nonoperational state; with no passengers;
6. The height, width, diameter and weight for the ride when it is in an operational state;
7. The maximum revolutions per minute, or the maximum feet per second, or miles per hour;
8. The direction of travel, including the reference point for this designation, when the proper direction of travel is essential to the design operation of the ride;
9. The minimum horsepower necessary to operate the ride properly;
10. The maximum static loading of each footing of the ride;
11. The maximum dynamic loading of each footing of the ride;
12. The capacity of the ride in terms of the total passenger weight and the number of passengers;
13. The actual time the ride cycle is in operation or the actual time a passenger is exposed to the elements of the ride functions including passenger restrictions to maximum exposure time;
14. The appropriate loading/unloading procedure with respect to weight distribution when passenger distribution is essential to the proper operation of the ride;

15. All passenger limitations such as, but not limited to, height, weight, age, passenger placement, or any of the appropriate restrictions; and

16. All recommendations for operational restrictions relating to environmental conditions such as, but not limited to, wind, rain, salt corrosion, extreme heat or cold.

(b) The ride owner shall maintain all of the information described in (a) above and make it available to the Commissioner upon his request.

(c) Where any conflict occurs between the manufacturer's information or recommendations of (a) above and other provisions of these rules, the other provisions of this chapter shall prevail.

### 12:195-3.24 Voice communication

Voice communication shall be provided between the ride operators at the entrance, intermediate points, and the termination of an amusement ride where voice communication could provide improved control of the ride by reducing a hazardous condition created by distance or lack of visibility between these points.

### 12:195-3.25 Proximity to high voltage lines

Amusement rides shall be located so that they conform to the requirements of the High Voltage Proximity Act, N.J.S.A. 34:6-47.1 et seq.

New Rule R.1986 d.222, effective June 16, 1986.  
See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

## SUBCHAPTER 4. BUILDINGS AND STRUCTURES AS PART OF AN AMUSEMENT RIDE

### 12:195-4.1 Scope

This Subchapter shall apply to the construction of buildings and structures that are a functional part of an amusement ride. To be a functional part of an amusement ride, the building or structure shall be a contributing factor to the amusement, pleasure, thrill or excitement of the ride.

### 12:195-4.2 Construction

Buildings and structures that are a functional part of an amusement ride shall be constructed to conform to the State Uniform Construction Code, N.J.A.C. 5:23.

Amended by R.1986 d.222, effective June 16, 1986.  
See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

(a)1 and 2 deleted.

Amended by R.1988 d.333, effective July 18, 1988.  
See: 20 N.J.R. 1072(a), 20 N.J.R. 1721(a).

Deleted old text and substituted new.

**12:195-4.3 Fire Safety**

Buildings and structures that are a functional part of an amusement ride shall be maintained for fire safety as provided in the State Uniform Fire Code, N.J.A.C. 5:18.

New Rule, R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1071(a), 20 N.J.R. 1721(a).

Deleted old rule "Height".

**12:195-4.4 through 12:195-4.12 (Reserved)**

Amended by R.1986 d.222, effective June 16, 1986.

See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

(b)1 and 2 deleted in section 4.6.

**SUBCHAPTER 5. OPERATION****12:195-5.1 Notice**

(a) No amusement ride shall be used at any time or location unless prior notice of intent to use the same has been given to the Commissioner.

(b) Notice of planned schedules shall:

1. Be in writing;
2. Identify the ride;
3. State the intended dates and locations of use; and
4. Be mailed to the Office of Safety Compliance at least five days before the first intended date of use.

(c) Notice of unscheduled or emergency use shall be given to the Commissioner immediately by telephone or wire.

**12:195-5.2 Daily inspection and test**

(a) An amusement ride shall be inspected and tested on each day when it is intended to be used. The inspection and test shall be made by a qualified person experienced and instructed in the proper assembly and operation of the device and shall be performed before the ride is put into normal operation.

(b) The inspection and test shall include the operation of control devices, speed-limiting devices, brakes and other equipment provided for safety.

(c) A record of each inspection and test shall be made at once upon completion of the test, and shall be kept with the device and available to the Commissioner for at least one year.

**12:195-5.3 Inspection after assembly and disassembly**

Amusement rides shall be inspected in accordance with N.J.A.C. 12:195-5.2 by a qualified person each time the rides are assembled and disassembled.

**12:195-5.4 Prohibited use**

No person shall knowingly use or suffer or permit to be used, an amusement ride which is not properly assembled or which is defective or unsafe in any of its parts, components, controls or safety equipment.

**12:195-5.5 Control of operation**

(a) The ride operator shall be at least 16 years of age.

(b) The ride operator shall operate no more than one ride at any given time.

(c) The ride operator shall be properly trained before he is assigned the duties of operating a ride.

(d) The ride operator shall have knowledge of the use and function of all normal and emergency operating controls and the proper use of the ride.

(e) The ride operator shall be in the immediate vicinity of the amusement ride operating controls at all times during normal operations of the ride. This rule shall not be construed to prohibit passengers from using amusement ride operating controls designed for use by a passenger.

(f) The ride operator shall exercise control over the amusement ride to prevent dangerous actions by passengers.

(g) The ride operator shall watch for apparent impending mechanical failures of the amusement ride.

(h) The owner of an amusement ride shall insure that his or her ride is operated in a manner which precludes foreseeable mischievous use of the ride.

(i) The ride operator shall not operate any ride when under the influence of alcohol or drugs.

(j) All amusement rides shall have an operating manual. The owner of an amusement ride shall operate the ride in accordance with the manufacturer's operating manual. In the absence of a manufacturer's operating manual, the owner shall write an approved operating manual. Where any conflict occurs between the operating manual and this chapter, this chapter shall prevail. The operating manual shall be kept with the amusement ride and shall be available for use by the Office of Safety Compliance.

(k) The ride operator shall lock-out the electrical disconnect switch when restoration of electrical power to an amusement ride could create a hazard to persons during the performance of maintenance, repair, inspection or an emergency evacuation of passengers, and insure that it remains locked-out until such time that restoration of power will not create a hazard.

**12:195-5.6 Overload and overspeed**

(a) An amusement ride shall not be overcrowded, or loaded in excess of its safe carrying capacity.

(b) Amusement rides shall not be operated at an unsafe speed or at any speed beyond that recommended by the manufacturer.

**12:195-5.7 Wind and storm hazards**

An amusement ride which is exposed to wind or storm shall not be operated under dangerous weather conditions except to release or discharge occupants.

**12:195-5.8 Imminent danger**

(a) If the Commissioner finds that an amusement ride presents an imminent danger he may attach to such ride a notice warning all persons against the use of the ride. Such notice shall not be removed until the ride is made safe, and then only by the Commissioner.

(b) The amusement ride shall not be used while the Commissioner's notice is posted.

**12:195-5.9 Cleanliness**

(a) A suitable number of metal containers shall be provided in and around amusement rides. Excessive accumulations of trash or refuse shall be promptly removed.

(b) All parts of amusement devices and temporary structures used by passengers or customers shall be maintained in a clean condition.

**12:195-5.10 Passenger conduct**

(a) The owner shall have the right to refuse any member of the public admission to a ride if his bearing or conduct will endanger himself or other members of the public.

(b) The owner shall have the right to refuse admittance to any ride if the intended passenger's health or physical condition makes it unsafe for him to use the ride.

(c) The owner shall refuse a passenger seeking admission to a major ride if the passenger cannot meet a guardian or height restriction if the ride is subject to such a restriction. Legible signs to this effect shall be posted in full view of the public seeking admission to major rides.

As amended, R.1979 d.168, eff. May 1, 1979.  
See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).

**12:195-5.11 Warning sign**

(a) Where a major ride exposes a passenger to high speed, substantial centrifugal force or a high degree of excitement, the owner shall post a conspicuous warning sign at the entrance to the ride advising the public of the risk to passengers.

(b) The sign required by (a) above shall be at least two feet by two feet in sharply contrasting colors.

(c) The sign as required by (a) above shall read as follows or express an equivalent warning:

The following people should not use this ride:

1. Those who are pregnant;
2. Those with heart conditions;
3. Those with serious back problems;
4. Those subject to motion sickness;
5. Those with serious health problems or serious physical disabilities; and
6. Those under the influence of alcohol or drugs.

(d) The owner shall not post any sign which prohibits or discourages all handicapped persons from using the ride. For example "No Handicapped" shall not be used as an equivalent warning.

As amended, R.1979 d.168, effective May 1, 1979.  
See: 11 N.J.R. 197(b), 11 N.J.R. 285(a).  
Amended by R.1986 d.222, effective June 16, 1986.  
See: 18 N.J.R. 609(a), 18 N.J.R. 1303(a).

Old (c) and (d) deleted and new text substituted.

## SUBCHAPTER 6. STANDARDS AND PUBLICATIONS REFERRED TO IN THIS CHAPTER

**12:195-6.1 Documents referred to by reference**

(a) The full title and edition of each of the standards and publications referred to in this chapter is as follows:

1. ANSI B77.1-1982 and B77.1b-1988, Aerial Passenger Tramways;
2. ASTM F698-1988, Physical Information to be provided for Amusement Rides and Devices;
3. ASTM F747-1989, Definitions of Terms Relating to Amusement Rides and Devices;
4. ASTM F770-1988, Practice for Operation Procedures for Amusement Rides and Devices;
5. ASTM F846-1992, Guide for Testing Performance of Amusement Rides and Devices;
6. ASTM F853-1991, Practice for Maintenance Procedures for Amusement Rides and Devices;
7. ASTM F893-1987, Guide for Inspection of Amusement Rides and Devices;
8. NFPA No. 70-1987, National Electrical Code;

9. NJAC 12:90, Boilers, Pressure Vessels and Refrigeration;
10. NJAC 5:23, Uniform Construction Code;
11. N.J.S.A. 5:3-31 et seq., Carnival-Amusement Ride Safety Act;
12. N.J.S.A. 17:22 et seq., Surplus Lines Law;
13. N.J.S.A. 34:6-47:1 et seq., High Voltage Proximity Act;
14. N.J.A.C. 5:18, Uniform Fire Code; and
15. N.J.S.A. 51:1-83 and 93, Standards, Weights, Measures and Containers.

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1071(a), 20 N.J.R. 1721(a).

Substantially amended.

Emergency amendment, R.1993 d.244, effective May 3, 1993 (to expire July 2, 1993).

See: 25 N.J.R. 2128(a).

Added new (a)15.

Amended by R.1993 d.343, effective July 6, 1993.

See: 25 N.J.R. 1832(a), 25 N.J.R. 2896(a).

Adopted concurrent proposal, R.1993 d.374, effective July 2, 1993.

See: 25 N.J.R. 3500(a).

#### 12:195-6.2 Availability of documents for inspection

A copy of each of the standards and publications referred to in this chapter is on file and may be inspected at the following office of the Division of Workplace Standards between the hours of 9:00 A.M. and 4:00 P.M. on normal working days:

New Jersey Department of Labor  
Division of Workplace Standards  
Third Floor, Station Plaza 4  
South Clinton and Yard—CN 386  
Trenton, New Jersey 08625-0386

Amended by R.1988 d.333, effective July 18, 1988.

See: 20 N.J.R. 1071(a), 20 N.J.R. 1721(a).

Address change.

#### 12:195-6.3 Availability of documents from issuing organization

Copies of the referred to standards and publications in this chapter may be obtained from the organizations listed below. The abbreviations preceding these standards and publications have the following meaning, and are the organizations issuing the standards and publications listed in N.J.A.C. 12:195-6.1.

ANSI—American National Standards Institute  
1430 Broadway  
New York, New York, 10018  
ASTM—American Society for Testing and Materials  
1916 Race Street  
Philadelphia, Pa.19103

NFPA—National Fire Protection Association  
Batterymarch Park  
Quincy, Massachusetts 02269

NJAC—New Jersey Administrative Code

12:90 Copies available from:

Office of Boiler and Pressure Vessel Compliance  
New Jersey Department of Labor  
CN 392  
Trenton, N.J. 08625-0392

NJAC—New Jersey Administrative Code

5:18 Copies Available from:

Bureau of Fire Safety  
Department of Community Affairs  
CN 809  
Trenton, N.J. 08625-0809

NJAC—New Jersey Administrative Code

5:23 Copies available from:

Construction Code Enforcement Bureau  
Department of Community Affairs  
Central Services/Publications  
CN 805  
Trenton, N.J. 08625-0805

NJSA—New Jersey Statutes Annotated

Copies available from:

Office of Safety Compliance  
New Jersey Department of Labor  
CN 386  
Trenton, N.J. 08625-0386

## SUBCHAPTER 7. SPECIAL PROVISIONS FOR BUNGEE JUMPING OPERATIONS

### 12:195-7.1 Purpose

The purpose of this subchapter is to maximize safety to bungee jumpers and spectators while bungee jumping operations are in progress.



**12:195-7.2 Scope**

The scope of this subchapter is to set forth specific rules applicable to bungee jumping operations which shall be adhered to in addition to the general provisions of the rules governing carnival and amusement rides in this chapter. Where a specific provision is provided covering bungee jumping which conflicts with the general provisions of this chapter, the provisions set forth in this subchapter shall govern.

**12:195-7.3 Prohibited activities**

(a) The following practices and activities are prohibited:

1. Catapulting;
2. Double jumping;
3. Launching;
4. Reverse jumping;
5. Sandbagging;
6. Stunt jumping;
7. Tandem jumping;
8. More than two persons on the jump point, except for the allowance of one additional employee approved for training purposes only;
9. A bungee jumping operation which is exposed to wind velocity exceeding 25 miles per hour or other dangerous weather condition;
  - i. Wind velocity shall be measured by an anemometer mounted on the tower at least as high as the jump point and capable of being read from ground level as well as the jump point;
10. Bungee jumping from a mobile or fixed-type crane or lifting device not designed, approved and/or manufactured to carry, transport or in any fashion move a person;
11. A bungee jumping operation which is in violation of any Federal, State or local law or regulation with respect to any part of its operation; and
12. Any bungee type ride not specifically approved by the Commissioner.

**12:195-7.4 Inspection fee and permit**

An owner of a bungee jumping operation shall adhere to all of the provisions pertaining to the inspection and permitting procedures and requirements found at N.J.A.C. 12:195-1.9, except that the inspection fee for a bungee jumping operation shall be \$500.00 and the duplicate permit fee shall be \$25.00.

**12:195-7.5 Operating manual**

(a) Each site shall have an operating manual for the safe operation of bungee jumping on the site. The manual and

all amendments shall be held on the site and shall be freely available to staff and the Commissioner.

(b) The manual shall include, but not be limited to, the following:

1. Site plan;
2. Description of operating system and equipment;
3. Job procedures for each task in the operating system;
4. Job descriptions;
5. Maintenance inspection records;
6. Testing procedures and recording;
7. Criteria for the periodic maintenance or replacement of rigging, hardware, bungee cords, harnesses, or lifelines as required by the manufacturer;
8. Emergency plan and procedures;
9. Reports of injuries, damage, and incidents;
10. Bungee cord and equipment log books;
11. Inspection procedures, standards, and follow-up actions;
12. Setting up the site equipment;
13. Lists of all staff including their qualifications and training; and
14. Testing and checking for the following:
  - i. Personnel protective equipment including gloves, harnesses, and life lines;
  - ii. The communication system(s)—communications must be maintained between all operations personnel involved with the actual jump. For example, the jump master and jump operator must be in communication at all times by way of telephone or radio;
  - iii. Examine the jump equipment and rigging;
  - iv. Telephone service to reach emergency medical personnel;
  - v. Carry out test jumps and check the bungee cord performance;
  - vi. Staff briefing for the day's operations; and
  - vii. Ensure the exclusion of the public from the operating areas.

**12:195-7.6 Insurance, bond or other security**

An owner of a bungee jumping operation shall adhere to all of the provisions pertaining to insurance, bond or other security found at N.J.A.C. 12:195-1.14, except that the amount of insurance liability shall be not less than \$1,000,000 for injury suffered by persons participating in a bungee jumping operation.

**12:195-7.7 Engineering certification**

(a) Prior to approval of a bungee jump operation, a New Jersey licensed professional engineer shall forward to the Department two signed and sealed submittals of the following (Note: Only the embossed seal of a professional engineer shall be acceptable):

1. Certification of hoisting equipment, tower or other methods of hoisting or suspension;
2. Plot plan of jump site within 200 feet of a bungee operation;
3. Schematic drawings of structure foundation and load bearing certification;
4. Elevation schematic and calculations of G forces, bungee height and safety zone between maximum bungee elongation and air bag;
5. Certification of all equipment used in a bungee operation such as bungee ropes, harnesses, carabiners, straps, etc.;
6. Certification of operation, training and maintenance manuals;
7. Certification of inspection of entire bungee operation and equipment;
8. Certification that design and construction is in accordance with accepted engineering practices and that all reasonable foreseeable hazards have been guarded against in design; and
9. Definitive statement by a professional engineer that the bungee operation is safe and acceptable to operate with the equipment identified in the submittal.

**12:195-7.8 Mechanical equipment****(a) Scales:**

1. Scales shall be tested and sealed by a New Jersey Weights and Measures officer at least once a year.
2. Scales shall be tested using certified test weights before the opening of the ride each day.

**(b) Weights:**

1. Each bungee jumping operation shall obtain test weights in the aggregate capacity of 300 pounds which have been tested and sealed by the Superintendent of the State Office of Weights and Measures.

**(c) Bungee cords:**

1. Operating testing: All commercial operators shall follow the inspection and testing recommendations set forth by the cord manufacturer;
2. All bungee cord manufacturers must provide specifications to purchasers on maximum usage of bungee cords expressed in number of jumps;

3. Bungee cords shall be retired when the cords exhibit deterioration or damage, do not react according to specifications or have reached the maximum usage expressed in number of jumps as specified by the manufacturer. All commercial operators must have an auditable system for recording the number of jumps on each individual cord in use. This data must be readily available to the Commissioner upon request.

4. Bungee cords retired from use shall be destroyed by cutting the cord into five foot lengths.

**(d) Bungee cord end connections:**

1. All end connections shall be of a size and shape to allow easy attachment to the jumper harnesses and to the rigging. On multiple cord systems, each cord must meet its own independent end connection.
2. All end attachment points subject to wear are to be retired when the cord is retired.
3. On multiple cord systems, all end attachment points shall be bound together in a protective sheath that allows the individual ends to move with respect to each other.
4. All cords shall be inspected each day for wear, slippage, or any other abnormalities, unless the manufacturer specifies more frequent inspections.

**(e) Jump harnesses:**

1. A jump harness shall be either:
  - i. A full body harness; or
  - ii. An ankle harness or ankle strapping that is tied off in such a manner so as to secure the jumper to the cord end connection. The ankle harness/strapping must evidence redundancy. A link to a waist harness is required.
2. Neither harness shall cause bruising.
3. Harnesses shall be available to fit the range of jumper sizes accepted for jumping.
4. The harness shall have a minimum breaking strength of 4,000 pounds, be suitable for the type of jumping conducted and shall be manufactured by an organization approved to manufacture similar harnesses to an approved standard.
5. Each harness shall be inspected prior to harnessing a jumper and shall be removed from service when it exhibits signs of excessive wear, damage, or when it has met the manufacturer's maximum usage allowance.

**(f) Carabiners and locking devices:**

1. Specification—carabiners shall be of the screw type lock with a minimum main axis breaking strength of 8,000 pounds.

2. Use—a minimum of two carabiners shall be used at each bungee end connection point.

3. Design and construction—all carabiners shall be designed and constructed using the existing standards for mountaineering and rescue gear.

4. Testing—all carabiners shall be inspected daily and shall be removed from service when the locking mechanisms fail to lock properly, the springs are worn or the locking gates deform.

(g) Anchors:

1. Specification: There shall be two anchors that attach the bungee cord to the structure. Each shall have a minimum strength of 8,000 pounds or shall be designed with a minimum factor of safety of five, whichever is more. There shall be a carabiner that attaches each anchor to the bungee cord end. The two carabiners shall not be connected to each other.

2. Where wire rope is used, it shall have staged ends with a thimble eye or be continuous. Other connection systems are acceptable if they meet the aforementioned strength specifications.

3. Daily inspection of the anchors shall be carried out and any portion showing sign of excessive wear shall be removed from service immediately.

(h) Air bags:

1. An air bag shall be provided.

2. A minimum of a 10 foot safety zone shall be maintained above the air bag.

(i) Platforms:

1. Platforms shall be constructed so as to provide safety and security to the public by providing the following. Every platform shall:

i. Be completely enclosed except for the jumping off area;

ii. Have a nonskid floor surface;

iii. Be provided with a gate equipped with locking devices to prevent accidental openings;

iv. Be provided with anchor rails or points to secure the jumper prior to jump;

v. Have no more than two persons on the platform during bungee jumping operations, the jumper and jump master. A third (employee only) may be added for training and instruction purposes only;

vi. Be permanently attached to a structure; and

vii. Be constructed so that the jump point shall not exceed 100 feet above the ground surface.

(j) Rescue procedures: All operations regardless of jump platform in use must have a secondary retrieval system. All appropriate staff must be trained on proper rescue procedures. Prior to bungee jumping operations, all appropriate staff must conduct a test rescue.

**12:195-7.9 Communication**

Radio communication shall be provided between the jump master and the jump operator(s).