

CHAPTER 14A CARNIVAL-AMUSEMENT RIDES

Authority

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Chapter Historical Note

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Public Notice: The notices of adoption that appeared in the December 16, 2002 New Jersey Register (at 34 N.J.R. 4343(a) and 4412(a), respectively) contained no illustrations and figures within the rule text. An advisory concerning this omission was sent by the publisher, West Group, to all New Jersey Register subscribers, as was a corrected replacement run of that issue of the New Jersey Register.

Subchapter 14, Climbing Wall Amusement Rides, was adopted as new rules by R.2008 d.44, effective March 3, 2008. See: 39 N.J.R. 2405(a), 40 N.J.R. 1079(a).

Chapter 14A, Carnival-Amusement Rides, was readopted as R.2008 d.158, effective May 19, 2008. See: Source and Effective Date.

Subchapter 12, Water Amusement Rides, was adopted as new rules by R.2008 d.172, effective June 16, 2008. See: 40 N.J.R. 1413(a), 40 N.J.R. 3620(b).

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SUBCHAPTER 1. GENERAL PROVISIONS

5:14A-1.1 Title; scope; intent

(a) These rules shall be known and may be cited as chapter 14A, Carnival-Amusement Rides of Title 5, N.J.A.C.

(b) 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.

(c) No person shall manufacture or sell for use in this State, operate, arrange for or cause to be used any ride that is not in compliance with this chapter.

1. No person shall change a ride in any way that makes the ride less conforming with the provisions of this chapter.

(d) This chapter shall apply to:

1. An amusement ride subject to the Carnival-Amusement Ride Safety Act, N.J.S.A. 5:3-31 et seq.;

2. An amusement ride as defined in N.J.A.C. 5:14A-1.2;

i. Amusement ride shall include a water slide exceeding 15 feet in height with the height of a water slide calculated as the difference in elevation between the highest point on the sliding surface and the lowest allowable elevation of the water surface into which the slide discharges; and

ii. A water amusement ride as defined in N.J.A.C. 5:14A-1.2;

3. Any mechanical device which carries, conveys, or directs riders along, around, or over a fixed or restricted route or course for the purpose of giving its riders amusement, pleasure, thrills or excitement; and

4. Any rider or gravity propelled ride, including, but not limited to, any water slide or water-based recreation equipment when located in an amusement area or park in which there are other rides covered by the Act.

(e) 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 gage of which is three feet or greater, and the weight of which is at least 60 pounds per yard;

i. Such locomotives shall be under the jurisdiction of the New Jersey Department of Transportation for the purposes of safety inspection;

2. A 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 rider-or gravity-propelled ride that is not a mechanical device, or is not limited to a fixed or restricted course, and is not located in an amusement area or park.

(f) Where there is a conflict between these rules and any referenced standard, these rules shall govern.

5:14A-1.2 Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise or the term is redefined for a specific section or purpose.

“Acceleration” means the change in velocity per unit time. It is usually expressed in units of ft/sec² or m/sec². Acceleration is also expressed in its relation to the acceleration due to gravity at sea level. “One” g means acceleration that is the same as the acceleration due to gravity at sea level. (that is, a body subjected to one g would experience the equivalent of its own weight.)

“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.

“ACI” means American Concrete Institute.

“Act” means the Carnival-Amusement Ride Safety Act, N.J.S.A. 5:3-31 et seq.

“Adult ride” see “major ride.”

“AISC” means American Institute of Steel Construction.

“Alteration” see “modification.”

“Amended type certification” means a certification that is granted to the manufacturer by the Department after review of an application for modification of a type certification.

“Amusement area or park” means any indoor or outdoor location where at least one amusement ride subject to the Act is available for use by the general public.

“Amusement park operator” means any person, firm or corporation that owns, leases, manages or operates an amusement park.

“Amusement ride” see “carnival-amusement ride.”

“ANSI” means American National Standards Institute.

“ASCE” means American Society of Civil Engineers.

“ASME” means American Society of Mechanical Engineers.

“ASTM” means American Society for Testing and Materials.

“AWS” means American Welding Society.

“Block system” means a system on an amusement ride with separate vehicles designed to limit the number of vehicles in a certain area of the ride.

“BOCA” means Building Officials and Code Administrators International, Inc.

“Book-on ride” means a ride that is not owned by the primary owner of rides being placed in use at the same amusement area.

“Carabiner” means a shaped metal device of spring loaded design with a gate used to connect sections of bungee cord, jump rigging, equipment, or safety gear.

“Carnival” means a mobile enterprise principally devoted to offering amusement or entertainment to the public in, upon, or by means of portable amusement rides or devices or temporary types of structures in any number or combination, whether or not associated with other structures or forms of public attraction.

“Carnival-amusement ride,” “amusement ride,” “carnival ride” or “ride” means any mechanical device or devices, including, but not limited to, a water slide exceeding 15 feet in height, 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 any passenger or gravity propelled ride when located in an amusement area, amusement park or water park in which there are other rides covered by P.L. 1975, c.105 (N.J.S.A. 5:3-31 et seq.), including all water slides in amusement areas or parks; provided, however, that this shall not include locomotives 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.

“Carnival ride” see “carnival-amusement ride.”

“CFM” means cubic feet per minute.

“Child” means a person 12 years of age or younger.

"Clearance envelope" means the area in and around an amusement ride which, under normal operating and riding conditions, provides a "safe zone" for the riding public.

"Commissioner" means the Commissioner of the Department of Community Affairs.

"Critical structural or mechanical component" means a component whose failure will result in uncontrolled operation or movement of the ride or failure of the restraint system.

"Dead load" means the weight of the ride itself. Dead load does not fluctuate with respect to time.

"Department" means the Department of Community Affairs.

"DIN" means Deutsches Institut für Normung (English Language Version).

"Discontinuities" means any and all indications found during the course of non-destructive testing. These indications include, but are not limited to, cracking, loss of thickness, undercutting of welds and lack of penetration.

"Dynamic load" means load that fluctuates with time because of the action of the ride during the ride cycle.

"EN" means Europäische Norm. These standards may be obtained through the European Committee for Standardization, Central Secretariat, rue de Stassart 36, B-150 Brussels, Belgium.

"First aid" means the one-time treatment or subsequent observation of scratches, cuts not requiring stitches, burns, splinters, contusions and minor complaints. For purposes of these rules, "first aid" shall not include first response to a serious injury.

"Fixed amusement ride" or "fixed ride" means an amusement ride that is erected to remain a part of the premises and not intended to be relocated. This definition also means and includes all amusement rides that are not mobile rides.

"Fixed location" or "fixed site" means an amusement area sited for more than 60 days during a 90-day period.

"GFCI" means ground fault circuit interrupter, a device capable of de-energizing a circuit or portion thereof within an established period of time when a current to ground exceeds some predetermined value that is less than that required to operate the over-current protective device of the supply circuit.

"Go-kart" or "go-cart" means a one or two rider self-propelled motor vehicle designed to convey riders along a restricted roadway while being operated and controlled by one rider who will be called the driver.

"Height restriction" means a stature requirement for riders to be permitted on a specific ride which is contained on the

list of height restrictions maintained by the Department in accordance with N.J.A.C. 5:14A-2.2.

"High speed" means greater than 37.5 mph, 55 ft/sec or 16.8 m/sec.

"IBC" means International Building Code.

"Imminent danger" means a condition that presents an excessive risk of serious injury to riders.

"Impact" means a force or acceleration that occurs over a time span of less than 0.2 seconds.

"Individual approval" means an approval that is granted to an owner of an individual ride that is not type certified, which is granted by the Department after review of a ride application and is applicable only to that individual ride.

"Inflatable" means an amusement device that incorporates a structural and mechanical system and employs a high strength fabric or film that achieves its strength, shape, and stability by tensioning from internal air pressure.

"Inspection" means the physical examination of an amusement ride and relevant documentation by an inspector.

"Key component" means a component or system that has been designated by the manufacturer as requiring special fabrication, maintenance, inspection or operation due to its importance to the continued proper and safe operation of the carnival-amusement ride device.

"Kiddie ride" means a ride designed primarily for riders weighing 90 pounds or less.

"Live loads" mean those loads produced by the use and occupancy of the ride, not including dead load or environmental loads. Live loads fluctuate with time, but not necessarily during one ride cycle.

"Maintenance" means performing maintenance or inspections according to a maintenance or operational checklist.

"Major modification" means any material change to a load-bearing structural member, a mechanical, electrical, hydraulic or pneumatic drive or control feature, or a restraint or other protective feature.

"Major ride" or "adult ride" means a ride not classified as a "kiddie ride" or a "super ride" by the Department.

"Manufacturer" means a person who obtains type certification for a carnival-amusement ride and who has responsibility for the design and manufacture of any carnival-amusement ride to be used or installed in this State, or sold for use in this State, and includes any entity controlled by the manufacturer.

"Mechanical malfunction" means any breakdown that constitutes a structural failure of a load bearing element, mechanical or electrical failure of a drive or control system com-

ponent or failure of a restraint system which materially compromises ride safety. Mechanical malfunction does not include a foreseeable malfunction that actuates a safety system.

“Mobile ride” or “portable amusement ride” means an amusement ride that is designed, constructed, and maintained to be readily disassembled and transported from one site to another and is intended to be relocated when environmental conditions exceed design criteria. The ride shall also have been designated by the manufacturer as a mobile or portable ride.

“Modify” means to make a modification.

“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 Department.

“NDT” or “non destructive testing” means to examine and evaluate parts, areas, or items for defects at or below the surface. The testing when required is done by a qualified individual and is done without harm or damage to the tested item.

“NDT statement” means a non-destructive testing plan or a statement from the manufacturer that NDT is not required.

“New Jersey serial number” means a unique identifying number assigned to each individual ride at the time that a permit is first issued for it, which remains with the ride as long as it exists in this State.

“New ride” means a ride of a type that has not previously been assigned a type certification by the Department, that has not obtained individual approval or that does not have a New Jersey serial number.

“NFPA” means the National Fire Prevention Association.

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

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

“Operating manual” means the document that contains the required procedures and forms for the safe operation of an amusement ride at the stated site.

“Operator” see “ride operator.”

“Operator assistant” means a person whose duties include, but are not limited to, loading and unloading riders, collecting tickets, checking seatbelts, lap bars and other restraints and occupying the entrance or exit areas to prevent intrusion while ride is in operation, but who is not the primary operator.

“Operator presence device” means a device which, when activated, requires an operator to remain in contact with the switch during the entire ride cycle.

“Over speed” means a condition present when a ride achieves a speed, whether forward or reverse, that is faster than the approved manufacturer’s safe operating speed.

“Owner” means a person who owns, leases, controls, or manages the operations of a carnival-amusement ride, including individuals, partnerships, corporations, both profit and non-profit, and the State or any of its political subdivisions and their Departments and agencies.

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

“Patron” see “rider.”

“Permit” means a permit to operate an amusement ride issued annually by the Department.

“Person” includes corporations, companies, associations, societies, firms, partnerships, and joint stock companies as well as individuals, unless restricted by the context to an individual.

“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. In the case of weld or metal crack inspections recommended or required by the manufacturer based on a safety bulletin, the qualified person shall be designated by the manufacturer or shall be an AWS Certified Weld Inspector or SNT-TC-1A Certified Level II or III Inspector, as appropriate.

“Reassembly” means the installation, erection, or reconstruction of an amusement ride following transportation or storage and prior to operation.

“Redundant restraint devices” means independent restraints in the sense that the secondary device, for example, lap bar, containment enclosure, etc., is able to restrain the patron in case of failure of the primary restraint.

“Repair” means to restore or fix an amusement ride or ride component with like components or materials that meet or exceed current design specifications for the ride.

“Ride” see “carnival-amusement ride.”

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

“Ride perimeter” means the perimeter of the area recommended for safe operation of an amusement ride by the ride manufacturer.

“Rider” or “patron” means a person riding on or utilizing an amusement ride.

“SAE” means Society of Automotive Engineers.

“Safety bulletin” means a supplemental notification delivered by the manufacturer or the holder of a supplemental modification certification to the owner that contains new information or new recommendations for inspections, testing, repair, operation or training. For the purposes of ASTM F 853, this term includes, but is not limited to, Safety Alerts, Service Bulletins, and Notifications.

“Serious injury” means any injury in which the injured person has lost consciousness, broken a bone, was transported to an emergency medical facility or an injury for which medical treatment by a physician beyond first aid was required.

“Service proven” means an amusement ride, device or modification to an amusement ride or device of which:

1. Units have been in service to the public for a minimum of five years; and
2. Unit(s) that have been in service have done so without any significant design related failures or significant design related safety issues that have not been mitigated.

“Set-up” means to assemble and erect a portable amusement ride for use by patrons, as described in the set-up manual (N.J.A.C. 5:14A-2.14).

“Super ride” means a ride designed to propel riders at high speed or acceleration in any direction which requires an accelerometer test according to the provisions of N.J.A.C. 5:14A-7.5.

“Supplemental modification certification” means a certification that is granted to a person other than the manufacturer by the Department after review of an application for modification of an individual approval.

“Time tested” means a type of amusement ride which is found by the Department to be simple in operation and impose insignificant forces on riders or which is service proven.

“Type certification” means a certification that is granted to a manufacturer by the Department after review of a new ride application and that is applicable to all rides of essentially the same design and manufacture with regard to structural, mechanical, electrical, hydraulic drive and control features, and restraint and other protective features.

“Use” means that an amusement ride is in operation, whether it is empty or carrying riders.

“Vehicle” means any carrier (for example, car, tub, tube, gondola, chair, capsule, compartment, etc.) on or in which riders are supported or contained and carried when participating in or riding on an amusement ride.

“Water amusement ride” means an amusement ride intended for use by riders in bathing attire where the action of

the ride involves purposeful immersion of the rider’s body, in whole or in part, in water.

Amended by R.2007 d.75, effective March 19, 2007.

See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).

Deleted definitions “Acceleration, impact”, “Acceleration, sustained”, “Automatic mode”, “Closed”, “Containment”, “Electrical (E)/Electronic (E)/Programmable Electronic Systems (PES) (E/E/PES)”, “Electro-sensitive protective equipment (ESPE)”, “Emergency stop (e-stop)”, “Fail-safe”, “Fence”, “Force limiting”, “Gate”, “Guardrail”, “Hand mode”, “Handrail”, “Latched”, “Locked”, “Manual release”, “Modification”, “Primary circulation area”, “Restraint” and “Safety-related control system”; and added definitions “Fixed amusement ride”, “Fixed location”, “Major modification” and “Mobile ride”.

Amended by R.2008 d.172, effective June 16, 2008.

See: 40 N.J.R. 1413(a), 40 N.J.R. 3620(b).

Rewrote definition “Water amusement ride”.

Amended by R.2008 d.355, effective December 1, 2008.

See: 39 N.J.R. 4474(a), 40 N.J.R. 6767(a).

In definition “Fixed amusement ride”, substituted “is erected to remain a part of the premises and not intended to be relocated” for “is designed to resist all applicable environmental loads for its intended location and is located at a fixed location”; in definition “Fixed location”, substituted “an amusement area” for “a location where an amusement ride is” and “more than 60 days during a 90-day period” for “operation with permanent foundations, electrical, and plumbing, as required”; rewrote definition “Mobile ride”; and added definitions “Ride perimeter” and “Set-up”.

5:14A-1.3 Standards adopted

(a) The standards listed below are adopted and incorporated as part of this chapter. In the event that any provision in any of the following standards conflicts with a provision of this chapter, this chapter shall govern.

1. The following standards are adopted and are available from the American Concrete Institute, P.O. Box 19150, Detroit, Michigan 48219:

- i. ACI 301—99, “Specifications for Structural Concrete for Buildings”;
- ii. ACI 318-02, “Building Code Requirements for Reinforced Concrete”

2. The following standards are adopted and are available from the American Institute of Steel Construction, 400 North Michigan Ave., Chicago, Illinois 60611;

- i. AISC, “Manual of Steel Construction ASD, 9th Edition”;
- ii. AISC 316 (1989) Manual on Steel Construction, Allowable Stress Design (ASD); and
- iii. AISC M015 (1986) Manual on Steel Construction, Load and Resistance Factor Design (LRFD);

3. The following standards are adopted and are available from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036:

- i. ANSI B11.TR3 (2000), “Technical Report on Risk Assessment and Reduction”;
- ii. ANSI B77.1—1999, “American National Standard for Passenger Ropeways, Aerial Tramways, Aerial

Lifts, Surface Lifts, Tows and Conveyers—Safety Requirements”;

iii. ANSI/ASME B15.1, “Safety Standards for Mechanical Power Transmission and Conveyors and Related Equipment”;

iv. ANSI B93.114M (1987), “Pneumatic Fluid Power System Standard for Industrial Machinery”; and

v. ANSI/IAF-9 (2005), “American National Standard for Aquatic Recreation Facilities.”

4. The following standards are adopted and are available from the American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, Virginia 20191-4400:

i. ASCE 7 (1998), Minimum Design Loads for Buildings and Other Structures; and

ii. ASCE 16 (1995) Standard for Load and Resistance Factor Design (LRFD) for Engineered Wood Construction;

5. The following standards are adopted and are available from the ASTM International, 100 Barr Harbor Drive, P.O. Box C700, W. Conshohocken, PA 19428-2959:

i. ASTM E 84, “Test Method for Surface Burning Characteristics of Building Materials”;

ii. ASTM F 698-94, “Specification for Physical Information to be Provided for Amusement Rides and Devices”;

iii. ASTM F 747-97, “Terminology Relating to Amusement Rides and Devices”;

iv. ASTM F 770-93, “Practice for Operation Procedures for Amusement Rides and Devices”;

v. ASTM F 846-92, “Guide for Testing Performance of Amusement Rides and Devices”;

vi. ASTM F 853-04, “Practice for Maintenance Procedures for Amusement Rides and Devices”;

6. Slewing gears, hoisting, and swiveling mechanisms, including their support arrangements, drives, controls, and lifting, and swiveling mechanisms;

7. Tubs, carriages, gondolas, or other devices illustrated in all necessary views and cross sections with details of the overall dimensions;

8. Vehicles or carriages with details of traveling, guide, safety, and upstop wheels, bearings, axles, shafts, and their attachments and possible ranges of motion in relation to the vehicle, steering and control, anti-rollback devices, drives, and mechanisms, brakes, and anchoring to the foundation;

9. Electrical, electronic, pneumatic, and hydraulic circuit and wiring diagrams; and

10. Control system documentation, including circuit wiring and logic diagrams.

(c) The manufacturer or owner shall provide to the Department and to the foundation designer a detailed list of maximum loadings on ground or foundation support locations.

(d) The manufacturer or owner shall provide the manuals required by N.J.A.C. 5:14A-2.14 as part of the ride design package.

(e) A special engineering review that focuses on a specific aspect of a ride may be undertaken by the Department to meet a specific need. Such a special engineering review may be undertaken in response to any of the following:

1. Accidents involving this ride or ride type;
2. A pattern of accidents or mechanical failures involving this ride or ride type;
3. Excessive maintenance or inspection(s) that may indicate a design defect;
4. The issuance of service bulletins, as described in these rules;
5. A serious defect found in the field during inspection; or
6. A major modification to a ride having a type certification, amended type certification, individual approval, or supplemental modification certification.

Amended by R.2007 d.75, effective March 19, 2007.
See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).

In (e)6, inserted "major" and substituted "to a ride having" for "from".

5:14A-2.13 Foundations for and siting of rides at fixed locations

(a) Before any ride is sited for the first time or moved, a copy of the permit application submitted to the local Uniform Construction Code enforcement agency, including all plans and specifications, shall be submitted to the Department for review. The submission shall include the following:

1. Foundation drawing(s) and calculations signed and sealed by a licensed professional engineer or a letter signed and sealed by a licensed professional engineer certifying that the existing foundation, pad, or other support structure will support the ride in all design conditions;

2. A soil report for rides that require new foundation work; and

3. Site specific environmental information, if this information was not already submitted to the Department.

i. Site specific environmental information shall not be required for type certified rides when the type certification covers all environmental design conditions found in the State.

(b) After the ride is erected, but prior to opening to the public, the following information shall be submitted to the Department:

1. Certification of the erection and assembly of the ride; and

2. A copy of the Certificate of Occupancy or Certificate of Approval from the local Uniform Construction Code enforcement office.

(c) Before a mobile ride is set up for an extended period of time, the following information shall be submitted to the Department for review:

1. Documentation of the manufacturer's set-up requirements, including documentation regarding the environmental conditions under which the ride may safely operate and the environmental design conditions. When those conditions are exceeded, the ride shall be taken down; and

2. If the ride is to be sited on another structure, a letter or certification as required by (d) below.

(d) Before a ride of any type is sited or moved on another structure, a signed and sealed letter or certification from a licensed professional engineer stating that the structure will adequately support the ride in the proposed location in all design loading conditions shall be submitted to the Department for review.

5:14A-2.14 Manuals

(a) For each ride for which type certification/amended type certification, individual approval/supplemental modification certification, or an annual permit application is submitted, the applicant shall provide maintenance requirements, maintenance schedules, inspection requirements, and inspection schedules, each in a checklist format, as follows:

1. Operation Manual as per ASTM F 770-93 (Reapproved 2000);

2. Maintenance Manual as per ASTM F 853-98;

3. Erection and assembly manual or set-up and tear down manual; and

4. A quality assurance manual as per ASTM F 1193-97.

(b) Where there is no manufacturer to provide these manuals, the applicant shall submit to the Department manuals prepared by a licensed professional engineer or other qualified professional with training, experience, or certification pertaining to the inspection and evaluation of amusement rides that is acceptable to the Department.

1. When the applicant encounters practical difficulty in providing these manuals, the applicant may request that the Department approve a schedule for their submittal.

(c) Following the initial submission and acceptance of these documents, the annual application shall include only changes to the manufacturer's maintenance recommendations and operating instructions, if any.

(d) The manufacturer may submit these documents on behalf of all applicants who own or operate a particular ride.

5:14A-2.15 Non-destructive testing requirements and reports

(a) An application for a type certification/amended type certification or individual approval/supplemental modification certification shall include a copy of the non-destructive testing plan and operating instructions provided by the manufacturer. The non-destructive testing plan shall identify the components to be tested and the frequency for testing. The non-destructive testing requirements and schedules shall be in a checklist format and shall contain, at a minimum, the information required at N.J.A.C. 5:14A-9.24. All documentation submitted shall comply with ASTM F 846-92 (Reapproved 1998).

1. Where there is no manufacturer to provide the required documents, the applicant shall submit to the Department a non-destructive testing plan prepared by a licensed professional engineer or other qualified professional with training, experience, and certification pertaining to the inspection and evaluation of amusement rides that is acceptable to the Department.

2. When the applicant encounters practical difficulty in providing these documents, the applicant may request that the Department approve a schedule for the submission of the required documents.

(b) The non-destructive testing plan shall include provisions for the non-destructive testing of critical structural and mechanical components, such as, but not limited to, journals, shafts, spindles, and pins not visible to the naked eye.

(c) The manufacturer may submit these documents on behalf of all applicants who own or operate a particular ride.

5:14A-2.16 Variations

(a) An owner or manufacturer may apply for a variation from these rules.

(b) An application for a variation shall be in writing on a form prescribed by the Department.

(c) The application for a variation shall include, but not be limited to, the following:

1. The requirement from which a variation is sought;

2. A description of the condition that causes the hardship in meeting the requirements;

3. The alternative that the owner or manufacturer will provide to meet the intent of the requirement; and

4. Documentation that the variation will not create a situation that is less safe than meeting the code requirement from which a variation is sought.

(d) An application for a variation shall be approved or denied by the Department in writing within 30 calendar days of submittal.

1. Failure to issue a variation or a denial within 30 calendar days of the submittal of a complete variation application shall be deemed to be a denial for the purpose of appeal.

SUBCHAPTER 3. RIDER RESPONSIBILITY

5:14A-3.1 Title; scope; intent

(a) This subchapter, adopted pursuant to authority of the Carnival-Amusement Rides Safety Act and entitled "Rider Responsibility," shall be known and may be cited throughout these rules as N.J.A.C. 5:14A-3, and when referred to in this subchapter may be cited as "this subchapter."

(b) This subchapter establishes the rider responsibilities as covered by the Act and these rules.

5:14A-3.2 Riders to comply with posted warnings and directions

(a) Each individual who rides a carnival-amusement ride shall comply with written warnings and directions posted by the operator of the carnival-amusement ride according to these rules. These include:

1. Height, weight, and size restrictions, if any, in accordance with N.J.A.C. 5:14A-9.34;

2. Rider warning signs in accordance with N.J.A.C. 5:14A-9.34;

3. Rider conduct signs in accordance with N.J.A.C. 5:14A-9.33; and

4. Any other signs or warning posted by the operator with the express intent to protect the safety and well being of riders, equipment and operators.

Rewrote (b).
Amended by R.2008 d.54, effective March 3, 2008.
See: 39 N.J.R. 2409(a), 40 N.J.R. 1082(a).
Added (d).

5:14A-3.3 Riders under the influence of alcohol or drugs

A rider shall not board or attempt to board any amusement ride if he/she is knowingly under the influence of any alcoholic beverage as defined in N.J.S.A. 33:1-1 or under the influence of any prescription, legend drug or controlled dangerous substance as this term is defined P.L. 1970, c.226 (N.J.S.A. 24:21-1 et al.) or any other substance which affects the rider's ability to use the ride safely and to abide by the posted and stated instructions.

SUBCHAPTER 4. OWNER RESPONSIBILITY

5:14A-4.1 Title; scope; intent

(a) This subchapter, adopted pursuant to authority of the Carnival-Amusement Rides Safety Act and entitled "Owner Responsibility," shall be known and may be cited throughout the rules as N.J.A.C. 5:14A-4, and when referred to in this subchapter may be cited as "this subchapter."

(b) This subchapter establishes the responsibilities of the owner of an amusement ride regarding the safe operation and maintenance of amusement rides.

5:14A-4.2 Ride equipment

(a) No one shall install, operate or allow to be operated any ride that does not have a current type certification, individual approval, supplemental modification certification or amended type certification issued pursuant to the requirements of this chapter.

(b) The owner of an amusement ride shall not knowingly permit a major modification of that ride without obtaining a supplemental modification certification or an amended type certification, as applicable, from the Department, pursuant to N.J.A.C. 5:14A-2.7 or 2.6.

(c) Existing equipment shall be maintained in accordance with this chapter.

(d) The owner of an amusement ride shall not offer or advertise that ride for use or rental within the State without a valid annual permit for that ride, pursuant to N.J.A.C. 5:14A-2.10. A ride brought to a site where another amusement ride is operating or advertised, or to a public event, is considered as being offered or advertised for use unless it has clear signage stating it cannot be operated in the State. This subsection shall not preclude promotional advertising for coming attractions as long as it is noted that they are coming attractions and are not yet available for use.

Amended by R.2007 d.75, effective March 19, 2007.
See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).

5:14A-4.3 Annual permit application

(a) Each year, 30 days before commencing operations and in each year thereafter or, for continuously operated rides, 30 days prior to the beginning of a new year, the owner shall apply for a permit on an application form furnished by the Department.

(b) The application for an annual permit shall include all information required pursuant to N.J.A.C. 5:14A-2.10.

5:14A-4.4 Application for individual approval and grandfathering

(a) If a carnival-amusement ride was manufactured prior to December 16, 2002, or if type certification is not renewed by the manufacturer or is revoked by the Department, then the ride shall not be operated, installed, or used in the State unless the owner has obtained an individual approval from the Department.

1. For rides that have a valid type certification that the manufacturer is not renewing, the owner may apply for an individual approval pursuant to N.J.A.C. 5:14A-2.4 without undergoing engineering review.

2. For rides that have a New Jersey serial number and had an annual permit in the year of or the year prior to December 16, 2002, but are not type certified, the owner may apply for an individual approval pursuant to N.J.A.C. 5:14A-2.5 without undergoing an engineering review.

(b) For rides not grandfathered under the provisions of (a) above, the owner shall make application for individual approval of the ride as a new ride. The application for an individual approval shall include the information required by N.J.A.C. 5:14A-2.5 and the ride shall undergo engineering review according to the applicable provisions of this chapter. The fees for these reviews will be consistent with type certification review fees.

1. Pursuant to N.J.A.C. 5:14A-2.1, information supplied by the owner in support of an individual approval application that has been designated by the manufacturer in an application for a type certification as proprietary shall be considered proprietary.

5:14A-4.5 Compliance with manufacturer's recommendations for modifications

(a) An owner shall comply with any manufacturer's recommendation or requirement including, but not limited to, the replacement or modification of a component of the ride, a change or addition to the maintenance schedule for a ride or the performance of a test on a ride.

1. A copy of all manufacturer's bulletins or recommendations received by the owner shall be forwarded to the Department within 14 days of receipt by the owner unless the ride has a current type certification, in which case the manufacturer shall be responsible for sending such information to the Department.

2. The Department may waive the requirement to implement a manufacturer's recommendation, at the owner's request, if failure to implement the recommendation does not jeopardize public safety.

5:14A-4.6 Assembly or disassembly

(a) The assembly or disassembly of an amusement ride shall be done in accordance with the applicable requirements of N.J.A.C. 5:14A-9 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 the 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 use tools of proper size and design to enable work to be done in a proper manner. Broken, damaged and unsuitable tools shall not be used.

(e) Assembly or disassembly of amusement rides shall be done under light conditions adequate 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. The public 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 assembly/construction manual for the assembly and disassembly of the ride. The manufacturer's assembly/construction manual shall be kept with the amusement ride and shall be available for use by the Department.

5:14A-4.7 Daily inspection, test and maintenance and inspection records

(a) An amusement ride shall be inspected and tested on each day of intended use. 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 be based on any manufacturer requirement and shall include, but not be limited to, the operation of control devices, speed-limiting devices, brakes and other equipment provided for safety.

(c) A record of all maintenance, inspections and tests shall be made at once upon completion of the test and inspection, and shall be kept with the device and available to the Department for at least three years.

(d) The owner shall retain up to date records of all maintenance, inspections and tests including those required by these regulations or by the manufacturer for each amusement ride at the carnival-amusement site. These records shall contain, at a minimum, the following information:

1. The date and nature of all tests, including who conducted them, why, and the result of the test;
2. The date and nature of all inspections, including who conducted them, why, and the result of the inspection;
3. The date and nature of all maintenance, including who did it, and why; and
4. The date and nature of all breakdowns or repairs of a mechanical part, who completed the repair, and a reference to the manufacturer's procedure used to effect the repair. If this is a new procedure, the Department shall be notified, in writing, of the new procedure and the new procedure shall be added to the permanent record of the ride.

5:14A-4.8 Training and certification of ride operators

(a) The owner shall ensure that all operators comply with the requirements of N.J.A.C. 5:14A-9.8 and 9.9.

(b) The owner shall ensure that, at the time of initial operation in the State, at least one operator trained by the manufacturer and having a certification from the manufacturer, in a format prescribed by the Department, is operating the ride.

(c) The owner shall ensure that operators are trained to operate the ride based on manufacturer requirements covered by the operational manual and any supplemental safety bulletins, safety alerts or other notices related to operational requirements.

(d) The owner shall ensure that ride operators operate no more than one ride at any given time.

(e) The owner shall ensure that operators give full attention to any ride they operate.

(f) The owner shall ensure that anyone who operates a ride shall have demonstrated the ability to operate the ride in compliance with all applicable requirements of this chapter and

shall ensure that each operator has signed a ride-specific certification attesting that the operator:

1. Has read and understood the manufacturer's recommendations for the operation of the ride and, if applicable, any operations manual provided by the owner;
2. Knows the safety-based limitations, including height, weight or other rider requirements, on who may ride the ride;
3. Is well versed on what could be reasonably expected to go wrong, how to recognize it, and how to get the ride and riders into as safe a position as possible to minimize the risk of injury or damage;
4. Has had adequate training to operate the ride;
5. Knows how to do the pre-startup operational ride checks as required by the manufacturer or as established by the owner in compliance with this chapter;
6. Knows how to verify that the daily maintenance checklist has been done prior to operating the ride; and
7. Has knowledge of the use and function of all normal and emergency operating controls and the proper use of the ride.

5:14A-4.9 Insurance, bond or other security

No person shall operate a ride without insurance as required by N.J.A.C. 5:14A-2.9.

5:14A-4.10 Riders under the influence of alcohol or drugs

The owner of an amusement ride may not permit a person who is perceptibly or apparently under the influence of alcohol or drugs to enter or ride an amusement ride.

5:14A-4.11 Rider accident reporting requirement

The owner shall designate an office or location as a site for reporting accidents or injuries. The office shall be open during normal business hours and shall be marked with clear signage. Forms with the minimum required information (see N.J.A.C. 5:14A-4.13(c)) shall be available for riders to fill out at this location. More than one office or location may be required so that the locations are within reasonable walking distance from any ride.

5:14A-4.12 Required notices of rider responsibility

(a) Signs advising of the rider reporting requirement (see N.J.S.A. 5:3-57) in English, and in at least one other language prevalent among riders, shall be posted in areas where rides covered by this chapter are operating, including all entrances, exits, locations for receiving forms and the first aid station(s).

(b) Each ride owner shall post warnings and directions for each ride which comply with manufacturer's requirements,

N.J.S.A. 5:3-31 et seq. and this chapter. Such warnings shall be clearly legible and shall be in a conspicuous location.

(c) This sign shall be next to, above, below or may be combined with the required signs regarding accident reporting, rider conduct and warnings described in this section and in N.J.A.C. 5:14A-9.33 and 9.34.

5:14A-4.13 Accident, incident or mechanical breakdown reporting

(a) Shut down and report: When any incident occurs involving a death or serious injury, ejection from the ride or failure of a critical structural or mechanical component, regardless of cause, the owner shall:

1. Shut down the ride and secure the area;
2. Evacuate riders and provide care for any injured persons;
3. Report the incident to the Department immediately by telephone at the telephone number provided for this purpose; and
4. Prepare a written incident report and send it to the Department by telefacsimile at the telefacsimile number provided for this purpose within 24 hours of the incident.

i. A copy of the report submitted to the Department shall be sent to the manufacturer.

(b) Report within 24 hours: When any incident occurs involving a ride-related injury requiring first aid, or any mechanical malfunction, or an emergency evacuation of the ride, the owner shall:

1. Report the incident to the Department within 24 hours of the incident by telephone or by telefacsimile at the numbers provided for this purpose;
2. Prepare a written incident report and send it to the Department by facsimile at a number provided for this purpose within five days of the incident or by mail at PO Box 808, Trenton, NJ 08625 postmarked within five days of the incident. The written incident report shall be on a form designed by the Department and shall include a description of any planned corrective action and a time frame for its completion; and
3. Repair the ride according to the manufacturer's instructions, if necessary, and submit a written report to the Department indicating the actions taken.
4. An evacuation due to an area-wide power failure or an evacuation at the normal discharge location of the ride shall not be considered an emergency evacuation for purposes of this subsection.

i. The removal of an individual rider or riders at other than the normal discharge location at the rider's request or due to rider behavior and having nothing to do

with the operation or functioning of the ride shall be recorded in accordance with (c) below.

(c) Record: When any incident occurs that is not covered by (a) or (b) above involving any type of ride-related injury or complaint that was observed by the owner or operator or reported to the owner or operator by the rider, the owner shall keep a record of such incident, including pertinent information, in a form that is easy to access and read and that is readily available for inspection by the Department.

1. The information shall include at least the following:
 - i. The name and address of the injured party;
 - ii. The age and sex of the injured party;
 - iii. A brief description of the injury;
 - iv. The ride on which injury occurred;
 - v. The time, date and weather conditions when the incident occurred; and
 - vi. A description of the incident.
2. The removal of an individual rider or riders as described in (b)4i above shall be recorded.

5:14A-4.14 Transfer of ownership

The owner of an amusement ride shall notify the Department when ownership is transferred to another owner. In such case, the new owner shall obtain a new annual permit and become responsible for the individual approval, if applicable.

5:14A-4.15 Name and address for official correspondence

(a) The owner of an amusement ride shall maintain a name and address within the State of New Jersey, or designate the name and address of a representative within the State, for the purpose of accepting official correspondence from the Department.

1. Such address shall not be a post office box, but shall specify a physical location where such owner or representative may be found during normal business hours.
2. Where the owner or representative is a corporation, partnership, or other business entity, the name and address of an officer, or other responsible person, to whom correspondence is to be addressed, shall be provided.
3. It shall be the responsibility of the owner to notify the Department of any change in the identity, address or phone number of the owner or representative. Any change shall be reported to the Department in writing within 30 days of the change.

New Rule, R.2009 d.50, effective February 2, 2009.
See: 40 N.J.R. 5316(a), 41 N.J.R. 727(a).

SUBCHAPTER 5. MANUFACTURER RESPONSIBILITY

5:14A-5.1 Title; scope; intent

(a) This subchapter, adopted pursuant to authority of the Carnival-Amusement Rides Safety Act and entitled "Manufacturer Responsibility," shall be known and may be cited throughout the rules as N.J.A.C. 5:14A-5, and when referred to in this subchapter may be cited as "this subchapter."

(b) This subchapter establishes responsibilities for a ride manufacturer.

5:14A-5.2 General requirements

(a) The manufacturer shall ensure that all rides are designed and constructed in compliance with the requirements of N.J.A.C. 5:14A-7.

(b) The manufacturer shall affix a data plate to each ride in compliance with N.J.A.C. 5:14A-7.7.

(c) The manufacturer of an amusement ride shall not state or imply in any advertising that ride as being approved for use within the State without a valid type certification for that ride.

Amended by R.2007 d.75, effective March 19, 2007.

See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).

In (b), updated N.J.A.C. reference.

Amended by R.2008 d.54, effective March 3, 2008.

See: 39 N.J.R. 2409(a), 40 N.J.R. 1082(a).

Added (c).

5:14A-5.3 Ride type certifications

(a) The manufacturer shall apply for type certification, in accordance with the requirements of N.J.A.C. 5:14A-2.4, for each ride type to be used within this State.

(b) As provided at N.J.A.C. 5:14A-2.4, type certification shall be valid for a period of three years and may be renewed every three years provided that the manufacturer continues to support the ride within the full meaning of this chapter.

5:14A-5.4 Amended type certification

(a) The manufacturer of an amusement ride type having a valid type certification shall not knowingly authorize a major modification of that ride type without obtaining an amended type certification from the Department, in accordance with N.J.A.C. 5:14A-2.6.

(b) Amended type certification shall be valid for a period of three years and may be renewed every three years provided that the manufacturer continues to support the ride within the full meaning of this chapter.

(c) If, as determined by the Department, an amusement ride is materially rebuilt or so modified as to change its original action, then a new type certification or individual approval shall be required as if it were a new ride.

(d) Book-on rides included after initial notification in (b) above shall provide the same information as in (b)2 and 3 above.

(e) When a book-on ride is included outside of the initial notification, the owner shall give at least 72 hours advance notice to the Department before the ride is placed in operation.

5:14A-9.3 Daily maintenance and operations inspections and tests

(a) Operators shall not operate any ride that has not had a daily maintenance inspection and operational inspection, if applicable, and checklist done prior to opening to the public on that day.

(b) Daily maintenance checklists and operational checklists, if applicable, are to be completed by a qualified person experienced and instructed in the proper operation and maintenance as per the manufacturer's specifications of the ride. Maintenance and operations shall be performed within the timeframe specified in the maintenance or operating manual and records shall be made and retained in compliance with N.J.A.C. 5:14A-4.7.

(c) The Department shall not inspect or issue a permit for a carnival-amusement ride without a current copy of the following items being on site and available to the inspector:

1. The manufacturer's set up and assembly manual;
2. The manufacturer's maintenance manual;
3. The manufacturer's operation manual;
4. The daily maintenance inspection and checklist;
5. The daily operational inspection and checklist;
6. The daily maintenance log; and
7. The NDT plan, if applicable.

(d) The maintenance or operational checklist shall include, but not be limited to, the following:

1. The name of the ride being checked;
2. The name and signature of person completing the checklist;
3. The date of the checklist;
4. A detailed list and description of all items being checked. Items listed shall be at a minimum those required by the manufacturer; and
5. Testing within the timeframe specified in the operating manual of all control devices, speed-limiting devices, block system, emergency brakes, automatic and manual lowering devices and any other equipment provided for safety.

(e) A daily maintenance log shall be kept for all work performed on each ride. The daily maintenance log entry shall include, but not be limited to, the following:

1. The name of the ride;
2. The name and signature of the maintenance person or persons performing the maintenance; and
3. The nature of the work, for example, malfunction, maintenance, violation abatement, etc.;
 - i. If other than routine maintenance, a notation as to the reason;
 - ii. If safety bulletin, a reference to the manufacturer's bulletin;
 - iii. If "order to cease violations" issued by a regulatory agency, a reference to said order;
 - iv. Account of all work performed and all parts repaired or replaced;
 - v. A copy of the manufacturer's recommendations for repair or repair procedures, if any.

(f) The maintenance checklist shall be done prior to the ride being opened to the public. The maintenance checklist may be done by the same person that will be operating the ride as long as that individual is qualified to perform the maintenance checklist.

(g) After all required maintenance is completed and prior to opening the ride to the public, the ride operator shall perform the operational inspection and complete the checklist.

(h) Individual tubs, sweeps, vehicle chassis, bents, towers, and supports to ground shall be uniquely identified and marked with no more than a combination of six characters or numbers to facilitate identification during maintenance and inspection.

5:14A-9.4 Identification, data plates and manufacturer's information

(a) A data plate that conforms to the requirements of N.J.A.C. 5:14A-7.7 shall be affixed to each ride.

1. Where no manufacturer's serial number is available and the ride was manufactured prior to December 16, 2002, an identification number supplied by the owner and registered with the Department shall be used.

Amended by R.2007 d.75, effective March 19, 2007.

See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).

In the introductory paragraph of (a), updated the N.J.A.C. reference.

5:14A-9.5 Inspection after assembly

An amusement ride shall be inspected for compliance with the manufacturer's assembly requirements by a qualified person each time the ride is assembled.

5:14A-9.6 Prohibited use

(a) No person shall knowingly use 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.

(b) No ride shall be used if all manufacturer's requirements, based on current bulletins, have not been completed.

(c) No ride shall be used without a current Certificate of Compliance issued by the local fire inspector, if required.

(d) No ride shall be used without a valid Certificate of Occupancy or Certificate of Approval issued by the local construction official, if required.

(e) No ride shall be used without a current and valid annual ride permit except as allowed by this chapter.

(f) No ride shall be used without a New Jersey State serial number except as allowed by this chapter.

(g) No ride with a maximum safe operating wind speed shall be used if the wind velocity exceeds the manufacturer's recommended safe operating wind speed. Wind speeds shall be measured with an anemometer mounted at a high point capable of being read from ground level or the operations office or tied into the control system to prohibit starting or to shut down the ride if operating.

(h) No ride shall operate after being issued a shut down order from the Department until the ride has had and passed a complete inspection by the Department unless the order allows operation to resume or unless re-inspection is waived by the Department.

(i) No ride requiring NDT shall be operated without the receipt of a current NDT report by the Department based on the current NDT plan filed with the Department.

(j) No ride shall be permitted to operate without correction of all items on the list of non-conformances issued by the inspector unless the inspector gives the operator a specific completion date and permission to operate until that date.

5:14A-9.7 Set-up and installation

(a) The site on which rides are to be erected shall be reasonably:

1. Free of large rocks and debris that might pose a hazard;
2. Well maintained to ensure safe operation;
3. Free of holes that might pose a hazard;
4. Sufficiently level to allow safe operation of the ride; and

5. Far enough away from vehicle traffic to provide a safe environment for the public.

(b) Wherever required by the manufacturer, proper protection between the amusement device and the ground shall be provided.

(c) Whenever foundations are required for a ride, the owner shall submit the required documentation pursuant to N.J.A.C. 5:14A-2.12 and 2.13.

(d) A mobile amusement ride set-up at a fixed location shall be permitted to have utility lines (that is, electric, water, pneumatic, hydraulic, liquid waste) for portable equipment, in compliance with the New Jersey Uniform Construction Code, N.J.A.C. 5:23, extending a maximum of 20 feet beyond the ride perimeter. Utility lines beyond 20 feet from the ride perimeter shall be part of the fixed location infrastructure and comply with N.J.A.C. 5:23 for permanent installations. Portable utility lines in at a fixed location, and connection of those lines, shall be surrounded by barriers to limit access to only authorized personnel. Means of shutting off utility supply that comply with applicable codes shall be provided at the point where a portable line connects to a permanent line.

1. Portable electrical wiring shall comply with Article 525 of the National Electric Code as required under the Uniform Construction Code, N.J.A.C. 5:23.

(e) Set-up and installation of amusement rides shall comply with N.J.A.C. 5:14A-7.5.

Amended by R.2008 d.355, effective December 1, 2008.

See: 39 N.J.R. 4474(a), 40 N.J.R. 6767(a).

Section was "Site layout". Added (d) and (e).

5:14A-9.8 Control of operation

(a) 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 govern. The operating manual shall be kept at the site where the ride is in use and shall be available for use by the Department.

(b) The owner shall ensure compliance with the requirements of N.J.A.C. 5:14A-4.8 for ride operators.

(c) The ride operator shall not allow anyone obviously under the influence of alcohol or drugs to ride the ride.

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

(e) The ride operator shall monitor the riders until the ride is completed.

(f) The correct number of operators necessary to safely operate the ride, based on the operating manual, shall be on site and in the correct location(s).

(g) The Department may require additional operators in the event of "blind spots." An additional operator with emergency stop capabilities shall be stationed in each "blind spot" location during operations.

(h) An operator shall not leave the ride unattended without disabling the controls so the ride cannot be started by unauthorized persons. If the ride is left unattended and disabled during an operational day, the operator, upon returning, shall run a complete cycle of the ride.

(i) The operator or operator assistants shall check each and every restraint, constraint, seatbelt, lap bar and any other device used in securing riders into a vehicle individually to assure that it is locked properly and that the rider fits properly in the safety system.

(j) Additional operation start button(s) shall be provided where loading and unloading operations are being performed in an extended area where safety restraints, harness and other devices are required to prevent ejection from the ride during operations. The start button(s) shall work in series in that all button(s) shall be depressed by operators before the ride will start.

(k) The operator or operator assistant shall check the height, weight or size of riders, as applicable, with the height mark, scale or other means of measurement provided by the owner. The means of measurement shall enable the operator to determine whether a rider meets the required limit in a "go, no go" fashion. No one who does not meet the required limits shall be permitted to ride the ride.

1. When the weight of a rider is used to determine entry to or use of an amusement ride, an accurate scale shall be provided.

2. A rider not meeting the approved height restriction may be accompanied by a companion if provided for in the manufacturer's operations manual or otherwise specified by the manufacturer. Companions shall meet any requirements given in the manufacturer's specifications. The larger person shall be by the exit door to ensure it stays closed and latched during operation unless this arrangement of riders creates a conflict with (k)3 below.

3. Where riders are of disparate sizes, riders shall be placed in the ride such that any action caused by centrifugal forces shall push the weight of the lighter rider into the heavier rider.

4. Riders at or above the maximum weight may be allowed if such riders are provided for in the manufacturer's operations manual. Distribution of such riders shall be as per the operations manual.

(l) All powered amusement rides and devices shall be equipped with a properly functioning operator presence device.

1. The operator shall be in constant contact with the operator presence device at all times during normal operation of the ride. This rule shall not be construed to prohibit riders from using amusement ride operating controls designed for use by a rider.

2. The operator presence device shall be tested at each inspection.

3. Exception: For rides and attractions where the operator presence device does not add to safety, including roller coasters, bumper cars, log flumes, go karts and some computer controlled rides, an operator presence device shall not be required.

(m) The ride operator shall exercise control over the ride to prevent dangerous actions by a rider.

(n) In the event of an emergency stop, routine stop (for the purpose of loading or unloading of a rider), or a stop for any other reason, the operator or operator assistants shall assure that no other riders have exited their vehicles unexpectedly.

Case Notes

Initial Decision (2006 N.J. AGEN LEXIS 395) adopted, which concluded that appellant was properly charged for leaving a ride unattended under N.J.A.C. 5:14A-9.8(h), as the slide was in use because appellant failed to cordon off the area or post any notices advising the public that the slide was closed, and no operator was present when the slide was being used by children and an adult, who was not an employee of appellant. *Diamond Gymnastics v. Bureau of Code Services*, OAL Dkt. No. CAF 1634-05 and 1053-06, 2006 N.J. AGEN LEXIS 852, Final Decision (September 11, 2006).

5:14A-9.9 Operator qualifications and training

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

(b) The ride operator or operator assistant shall not operate any ride while under the influence of drugs or alcohol.

(c) The ride operator shall be properly trained before being assigned the duties of operating a ride. The operator training shall include, but shall not be limited to, any manufacturer's recommendations for the operation of the ride. The owner shall require a certification to be signed by each ride operator and operator assistant indicating the ride name and operator's level of authority regarding the ride. This certification shall be kept on file by the owner for at least three years.

(d) The ride operator shall have a copy of the manual and shall have the ability to read and understand the manual as written by the manufacturer and to safely operate and communicate safe riding policies to the public for the ride.

(e) The operator and all operator assistants shall have a complete knowledge of the operation of the restraint system, lap bar locking system, seatbelts and the proper way to seat a rider in a vehicle.

(f) The operator and all operator assistants shall be trained to be aware of the motions and sounds attributed to the normal operation of the ride. The operator shall be familiar with how the ride looks when it is functioning normally, and be alert to any unusual conditions. If there are any changes in the normal operating condition, operation shall cease and the owner shall be called immediately. The owner will decide the appropriate action to be taken.

(g) Operators and operator assistants shall know the whereabouts of all safety equipment such as fire extinguishers, emergency main electrical disconnect, lock-out point and nearest telephone for routine or emergency assistance.

5:14A-9.10 Lock-out procedure

(a) All amusement ride disconnecting devices shall be provided with a means of lock-out. Where rides have mechanical, pneumatic or hydraulic energy, these shall have a means of being locked out when necessary for doing maintenance and inspections.

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

(c) All amusement ride owners shall have in place a written lock-out procedure.

(d) A lock-out shall not be removed by any person other than the person who installed it, except as allowed by the written procedure for lock-outs. Lock-outs put in place by the Department shall be removed only by the Department.

5:14A-9.11 Set up, maintenance and repair operations affecting structural integrity or key components

(a) Amusement rides and attractions shall have no corrosion or pitting affecting structural integrity or the functioning of key components.

(b) Rides shall be operated and maintained in compliance with the manufacturer's specifications for fatigue loading. No holes shall be drilled into tubing that might compromise the integrity of the structure without written permission from the manufacturer. In the event the manufacturer does not exist, a professional engineer licensed to practice in the State of New Jersey shall review and approve, in writing, the actions and reasons for said actions. The manufacturer or the professional engineer shall show, from materials standards or from the

maintenance manual, that the proposed hole sizes and locations will not compromise the integrity of the structure.

(c) No structural shaft may be cross-drilled or welded without the written permission of the manufacturer. In the event the manufacturer does not exist, a professional engineer licensed to practice in the State of New Jersey shall review and approve, in writing, the actions and reasons for said actions.

(d) During installation, set-up to begin seasonal operational or assembly after disassembly for mechanical malfunction, an owner shall use or order to be used fasteners supplied by or the equivalent to those specified by the manufacturer.

1. All pins used shall adhere to manufacturer's specifications in length, hardness and type.

2. All safety pins, such as "R" keys, and "cotter pins," shall be as per manufacturer's specifications.

3. All fasteners shall be tightened to manufacturer's specified torque values.

(e) 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.

(f) Any and all welding done on the amusement ride shall be performed by a welder certified by the American Welding Society (AWS) or an acceptable alternative welding certification with proof of certification on site at all times.

(g) Any and all work performed by a machine shop, repair facility, or a third party of any kind for any reason shall be done to the documented specifications of the manufacturer or of a professional engineer licensed to practice in the State of New Jersey, as appropriate, based on the approved written repair plan.

(h) All work done shall be done to manufacturer's specifications.

(i) Prior to re-inspection following a repair, documentation for the repair shall be provided from the maintenance manual or from an original letter from the manufacturer.

1. When requested by the Department, copies of all correspondence regarding a specific repair not covered in the manual shall be sent to the Department. Copies of subsequent correspondence shall be sent as they occur.

2. If a manufacturer no longer exists or no other manufacturer has taken over responsibility for the technical support of the ride, then the ride owner shall make the repair following accepted engineering practice. Notice of such repair, including a description of the repair procedure, shall be given to the Department.

i. The owner takes responsibility for the repair and may be required to have the repair certified by a licensed

professional engineer or other individual acceptable to the Department.

5:14A-9.12 Vehicle integrity

(a) The interior and exterior parts of all rider carrying amusement rides with which a rider 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 rider may be forcibly thrown by the action of the ride shall be adequately padded.

(c) Seatbelts, lap bars, straps, shoulder harnesses, chains, secondary locking devices and any other form of restraint, constraint or containment device shall be in proper working order or vehicle shall be tagged "Out of Service."

(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 riders.

(e) 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, that such defects do not jeopardize safety and that removing these units does not unbalance the ride.

5:14A-9.13 Voice communication and signal system

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

(b) An additional operator and a signal system shall be provided where the operator of the ride does not have a clear view of the point at which riders are loaded or unloaded. The additional operator shall be stationed so as to be able to observe all areas not visible to the operator of the ride.

(c) For rides and attractions which require a spoken message of instruction or warning prior to operation, this message shall be given in a manner that is clearly audible to all riders prior to the start of each ride cycle. This message shall be in writing in the operation manual.

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

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

free of leaks, clean and maintained to ensure safe operation at all times.

(f) When necessary, hydraulic systems shall be equipped with a thermostat to sense overheating and prevent premature failure of components and ride breakdown.

(g) 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 rider.

1. In the event of power, air pressure or hydraulic pressure failure, all components shall fail to a position which will put the ride into the safest condition even if a mechanical means is needed to do that.

2. In the event of restoration of air, power or hydraulic pressure, the hydraulic system shall not operate automatically without action by the operator to reset the system and restart the ride.

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

5:14A-9.23 Fire prevention

(a) All rides manufactured after December 16, 2002 shall meet and be maintained in compliance with the requirements of N.J.A.C. 5:14A-7.4.

(b) Replacement materials shall comply with the flame retardancy requirements of N.J.A.C. 5:14A-7.4.

(c) Approved fire extinguishers shall be provided in accordance with NFPA 10. Flammable waste, such as oily rags and other flammable materials, shall be placed in covered metal containers. 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 approved containers in reasonably cool and ventilated places and in accordance with Federal guidelines for storage of such materials. Smoking or the carrying of lighted cigars, cigarettes, pipes, candles or other open flame is prohibited in any area where such liquids or gases are stored or are transferred from one container to another.

Amended by R.2007 d.75, effective March 19, 2007.
See: 38 N.J.R. 1908(a), 39 N.J.R. 855(a).
Updated the N.J.A.C. references.

5:14A-9.24 Non-destructive testing

(a) Non-destructive testing shall be performed by the owner pursuant to the provisions of the nondestructive testing plan required at N.J.A.C. 5:14A-2.15, with such additional requirements as may be established by the Department for a specific ride.

(b) The nondestructive testing plan shall include, but not be limited to:

1. The part to be tested, including photographs or illustrations;
2. The percentage of parts of each type to be tested;
3. How often the parts are to be tested; and
4. Type of NDT specified by manufacturer.

(c) The owner shall prepare a report, in writing, for all non-destructive tests performed.

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

1. The name and business address of the owner;
2. The date and location where the test was performed;
3. The name of the ride;
4. The manufacturer's name and the serial number of ride;
5. The name and business address of firm that conducted the test;
6. The type of non-destructive test performed and a description of the test equipment by name and serial number;
7. The results and certification of results and the criteria used for acceptance or rejection of the part(s);
8. The part name, part number, and quantity of each part that was inspected;
9. A statement that the test was performed in compliance with the ride manufacturer's maintenance manual or bulletin, identifying the bulletin by number and giving the date of publication or revision, a copy of the NDT statement, U.S. Consumer Product Safety Commission (CPSC) test requirement, owner's requirement or Department requirement being followed;
10. A detailed map, drawing, or photograph of sufficient clarity showing the area tested;
11. If rejected, a detailed sketch of the area repaired, the manufacturer's recommendation for repair, repair method used and the results of the retest;
12. Level of certification and signature of person performing test; and
13. Level of certification and signature of person interpreting the test results.

(e) The report required in (d) above shall be received by the Department prior to operation of the ride in the State or prior to the expiration date of the NDT report on file with the Department.

(f) The inspector witnessing the NDT or inspecting the ride for the first time shall receive a copy of the technician's field report to submit with the inspection report.

(g) In the event a visual NDT inspection is ordered by the manufacturer or a regulatory agency, and discontinuities are found, the owner or regulatory agency shall order additional NDT inspection using another more stringent method of NDT inspection.

(h) A visual weld or crack inspection ordered by a manufacturer in the form of a safety bulletin requiring a "qualified person" to perform the test, shall be done by a Level II NDT technician or a AWS certified welder and the testing shall be done in accordance with AWS D1.1 testing standards.

5:14A-9.25 Wind and storm hazards

(a) Operators and operator assistants shall be aware of weather conditions including, but not limited to, wind, rain, lightning and any approaching storm.

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

(c) Manufacturer wind and weather related restrictions shall be followed during periods of wind or storm. The restrictions shall be addressed in the operation manual, which shall be on site at all times.

5:14A-9.26 Accident, incident or mechanical breakdown reporting

Accidents, incidents or mechanical breakdowns shall be reported as required by N.J.A.C. 5:14A-4.13.

5:14A-9.27 Imminent danger

(a) If the Department finds that an amusement ride presents an imminent danger, a notice warning all persons against the use of the ride shall be attached to the ride. Such notice shall not be removed until the ride is made safe, re-inspected and then the warning notice will be removed by the Department.

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

5:14A-9.28 Cleanliness

(a) A suitable number of trash containers shall be provided in and around amusement rides. Accumulations of trash shall be promptly removed.

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

(c) The operator and operator assistants are responsible for the cleanliness of the ride.

5:14A-9.29 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 Department and shall comply with N.J.A.C. 8:26, as applicable.

(c) 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;
3. Free of floating or suspended matter; and
4. Sanitary for water contact rides.

5:14A-9.30 Lighting

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

5:14A-9.31 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 specifications. Any of the following conditions shall be cause for 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. Any condition which causes the 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 $\frac{3}{64}$ inch for diameters up to and including $\frac{3}{4}$ inch, $\frac{1}{16}$ inch for diameters, $\frac{7}{8}$ inch to $1\frac{1}{8}$ inches, $\frac{3}{32}$ inch for diameters $1\frac{1}{4}$ inches to $1\frac{1}{2}$ inches;