

**LABOR SERVICES DIVISION[875]**

**Adopted and Filed**

Pursuant to the authority of Iowa Code section 88A.3, the Labor Commissioner hereby rescinds Chapter 61, “Administration of Iowa Code Chapter 88A,” and adopts a new Chapter 61 with the same title; rescinds Chapter 62, “Safety Rules for Amusement Rides, Amusement Devices, and Concession Booths,” and adopts a new Chapter 62 with the same title; and adopts new Chapter 63, “Safety Rules for Bungee Jumps,” Iowa Administrative Code.

The rules concerning amusement rides and devices have seen only minor modifications in the past 40 years and are obsolete. The adopted amendments replace the existing two chapters with three new chapters to reflect new technologies and national industry trends.

Adoption by reference of ASTM Standards on Amusement Rides and Devices is a key component of these rules. These ASTM safety standards are national consensus standards developed with significant input from the amusement ride and device industry, and they are flexible to cover new equipment. Separate standards specific to tramways and a new chapter for bungee jumping are also adopted.

The new rules clarify the scope of jurisdiction over amusement devices and concession booths; set forth procedures for owners to perform the required annual inspections in limited circumstances; set minimum standards for employees of amusement operations; codify existing practices for many administrative functions; set forth procedures for denial, termination, suspension, or revocation of an operating permit or sticker; set forth procedures for leasing covered equipment; and conform to various statutory provisions.

The purposes of these amendments are to implement legislative intent and protect the public health and safety.

Notice of Intended Action was published in the January 6, 2016, Iowa Administrative Bulletin as **ARC 2354C**. Three comments were received on the proposed amendments. One person expressed support for the new provisions that allow owner inspections of inflatable amusement devices to substitute for inspections by state employees. One person expressed uncertainty about the meaning of subrule 62.4(2), and one person expressed uncertainty about the meaning of subrule 62.4(10). The comments were reviewed and it was determined that no changes are necessary.

These amendments are not identical to the amendments published under Notice of Intended Action. The exemption set forth in subrule 61.1(7) has been expanded to include schools, and the format of paragraph 61.3(1)“f” has been revised for consistency.

After analysis and review of this rule making, no impact on jobs has been found.

These amendments are intended to implement Iowa Code chapter 88A.

These amendments shall become effective on April 6, 2016.

The following amendments are adopted.

ITEM 1. Rescind 875—Chapter 61 and adopt the following **new** chapter in lieu thereof:

**CHAPTER 61**

**ADMINISTRATION OF IOWA CODE CHAPTER 88A**

**875—61.1(88A) Scope.** 875—Chapters 61 through 63 do not apply to the following:

**61.1(1)** A water park or water park attraction including, but not limited to, a water slide, wave action pool, and lazy river. This subrule does not apply to an amusement ride that propels patrons using a power source other than gravity even though water is present.

**61.1(2)** A live-animal ride.

**61.1(3)** A vessel inspected pursuant to Iowa Code chapter 462A.

**61.1(4)** An amusement structure in which the patrons navigate on their own power and the patrons do not ride, climb, or walk on a mechanical component.

**61.1(5)** A device that meets all of the following criteria:

a. Was designed and built to be operated by a coin, card, or token;

- b. Was designed and built to be operated by the patron rather than an attendant;
- c. Operates on self-contained wiring that was installed by the manufacturer;
- d. Operates on less than 120 volts of electrical power; and
- e. Is within or is part of a structure subject to a state or local building code.

**61.1(6)** Playground equipment owned, maintained, and operated by any political subdivision of this state.

**61.1(7)** A concession booth, amusement device, or amusement ride that meets all of the following:

- a. Is owned and operated by a nonprofit organization or school; and
- b. Is located in a building subject to inspection by the state fire marshal or a local government.

**61.1(8)** Nonmechanized physical fitness and playground equipment unless a fee is charged to use the equipment.

**61.1(9)** Physical fitness equipment that does not meet the definition of “amusement device.”

**61.1(10)** A tramway used as a ski lift.

**61.1(11)** A scenic railway operating on standard-gauge rails.

**61.1(12)** A zip line or climbing wall located at a camp or retreat owned or operated by a nonprofit religious, educational or charitable institution or association.

**875—61.2(88A) Definitions.** The definitions in this rule apply to 875—Chapters 61 through 63.

“*Air-supported structure*” means an amusement device that employs a high-strength fabric or film that achieves its strength, shape and stability from internal air pressure provided by a mechanical device such as an air blower or fan.

“*Amusement device*” means a climbing wall utilizing an auto-belay system; a bungee jump as defined in 875—Chapter 63; a device allowing a patron to jump on a trampoline while attached to one or more bungee cords; a dry slide; a mechanical bull; a zip line that does not allow the rider to touch the ground at all times; and an air-supported structure.

“*ANSI*” means the American National Standards Institute.

“*Assistant*” means a paid or volunteer person working under the direct supervision of an attendant or operator.

“*ASTM*” means the ASTM Standards on Amusement Rides and Devices published by ASTM International.

“*Attendant*” means a paid or volunteer person who controls patron restraints or the operation, starting, stopping, or speed of covered equipment.

“*Carnival*” means an enterprise offering amusement or entertainment to the public in, upon, or by means of amusement devices or rides or concession booths.

“*Certificate of noncompliance*” means:

1. A certificate of noncompliance issued by the child support recovery unit, department of human services, pursuant to Iowa Code chapter 252J;
2. A certificate of noncompliance issued by the college student aid commission pursuant to Iowa Code chapter 261; or
3. A certificate of noncompliance issued by the centralized collection unit, department of revenue, pursuant to Iowa Code chapter 272D.

“*Commissioner*” means the labor commissioner or the labor commissioner’s authorized designee.

“*Concession booth*” means a structure that is powered by electricity and offers amusements to the public at more than one fair or carnival, or at one fair or carnival for more than seven consecutive days. A structure or enclosure offering only goods, food or beverages, rather than amusements, is not a “concession booth.”

“*Covered equipment*” means an amusement ride, amusement device, concession booth or related electrical equipment that is covered by Iowa Code chapter 88A.

“*Fair*” means an enterprise principally devoted to the exhibition of products of agriculture or industry in connection with the operation of covered equipment.

“*Major breakdown*” means stoppage of operation from any cause that results in damage, failure, or breakage in a stress-bearing part of covered equipment.

“*Major modification*” means any change to the structure of or to an operational characteristic, capacity, classification, or mechanism of covered equipment. “Major modification” includes, but is not limited to, changing the mode of transportation from non-wheeled to a truck or flat-bed mount or changing the mode of assembly or other operational functions from manual to mechanical or hydraulic.

“*NFPA*” means the National Fire Protection Association.

“*Operator*” means a person, or the agent of a person, who owns or controls or has the duty to control the operation of covered equipment at a carnival or fair. “Operator” includes an agency of the state or any of its political subdivisions. “Operator” shall include a person who leases covered equipment and controls or has the duty to control its operation at a carnival or fair.

“*Related electrical equipment*” means a portable generator, blower, or other equipment necessary to the operation of an amusement ride, amusement device, or concession booth.

“*Reportable incident*” means an event described by one or more of the following:

1. Damage, failure or breakage of a stress-bearing part of an amusement ride or amusement device;
2. Cessation of covered equipment for more than 20 minutes with at least one rider aboard;
3. An occurrence that nearly resulted in personal injury; or
4. An occurrence that caused the operator to cease operations unexpectedly to avoid an injury or illness.

“*Rope lay*” means the length along the rope in which one strand makes a complete revolution around the rope.

“*Walkway*” means a public passage through a carnival, fair, or park.

**875—61.3(88A) Owner and operator requirements.** No person shall operate covered equipment at a carnival or fair unless the person holds a current operating permit and the covered equipment has passed an Iowa inspection.

**61.3(1) Operating permit.** No later than May 1 and at least 14 days before operation begins each calendar year, the operator of covered equipment shall apply to the commissioner for an operating permit. Application shall be made on a form provided by the commissioner. Each of the following shall be submitted with the completed operating permit application:

- a. The applicable fee;
- b. A certificate of insurance issued by an insurance company authorized to do business in Iowa.

The certificate of insurance shall:

- (1) Certify a policy in the minimum amount of \$1 million for bodily injury, death, or property damage in any one occurrence;
- (2) List the specific pieces of equipment that are covered and, if applicable, those that are not covered; and
- (3) Include “Division of Labor Services—Amusements” as a certificate holder;

c. The operator’s itinerary identifying the covered equipment to be operated and the dates and locations where each will be operated;

d. General design criteria, safety factors, materials utilized, and stress analysis unless the amusement ride or amusement device was granted an Iowa amusement inspection sticker during the previous calendar year;

e. Certification of compliance with applicable training and maintenance requirements;

f. With an application submitted after May 1, proof that the applicant could not have reasonably complied with the May 1 deadline and proof that the application was filed immediately after need for the permit was known;

g. Separately for each bungee jump:

(1) A site operating manual;

(2) A report which is prepared and sealed by a professional engineer who is licensed in Iowa and which certifies that the design and construction of the equipment and structure are suitable for the intended use and conform to Iowa law, recognized engineering practices, procedures, standards and specifications;

- (3) Site plan drawings depicting the preparation area, the jump space, the landing area, the recovery area and other features to be included in the approved operating site;
- (4) Specifications of equipment and structures; and
- (5) Depictions of the location, specifications, dimensions, and type of air bag, pool or body of water where the jumper will land.

**61.3(2) Changes to information submitted with application.** The operator shall immediately notify the commissioner of any changes to the operator's itinerary. The operator shall promptly notify the commissioner of other changes to information provided with the operating permit application.

**61.3(3) Leases.** The requirements of this subrule apply when covered equipment is leased for use at a fair or carnival.

*a.* The owner shall notify the commissioner within 48 hours of leasing the covered equipment. The notification shall include the name, address, and contact information for the lessee and lessor, a description of the covered equipment, and the dates and location of its intended operation.

*b.* The lessor shall give the lessee a copy of the manual for the leased covered equipment and shall train the lessee or the lessee's designated representatives on the use of the equipment.

*c.* The lessee shall obtain an operating permit.

**61.3(4) Personal injuries and deaths.**

*a.* The operator shall immediately report by telephone any accident that results in medical care beyond first aid.

*b.* Within 48 hours after an operator is notified of a claim or report to the operator's insurance provider, the operator shall submit a duplicate copy of the report or claim to the commissioner.

*c.* The commissioner may require that the scene of an accident be secured and not disturbed to any greater extent than necessary for removal of the deceased or injured person. If covered equipment is removed from service by the commissioner, the covered equipment shall be returned to service only upon the commissioner's authorization.

**61.3(5) Major breakdown report.** The operator shall report a major breakdown of covered equipment to the commissioner immediately and provide a detailed report in writing within 48 hours. The commissioner may order the covered equipment to be withheld from operation, and in such case, the commissioner shall conduct an immediate investigation. The covered equipment shall be released for repair and operation only after the commissioner's investigation is complete.

**61.3(6) Advance notice of major modification.** The operator shall notify the commissioner in writing at least ten days prior to a major modification. If requested by the commissioner, the operator shall provide plans, diagrams, and ride analysis documentation consistent with ASTM F2291-15.

**61.3(7) Technical data.** If requested by the commissioner, the operator shall provide an English language version of the following:

*a.* Data concerning constant, reversible, or eccentric forces generated by acceleration, deceleration, wind, centrifugal action, or inertia.

*b.* Stress analysis and other data pertinent to the structural materials, design, structure, factors of safety or performance characteristics.

**875—61.4(88A) Inspections.** Pursuant to Iowa Code chapter 88A, covered equipment must pass an inspection at least annually. Inspections will be performed according to the rules set forth and standards adopted in 875—Chapters 61 to 63.

**61.4(1) Inspection types.** In addition to the inspections listed below, an inspection may be conducted by the commissioner at any time. The fee schedule for annual inspections set forth in Iowa Code section 88A.4 shall apply to all inspections performed by division of labor services inspectors. No person shall operate covered equipment at a fair or carnival unless the covered equipment has passed an inspection in the current calendar year.

*a. Annual inspection by owner.* At the discretion of the commissioner, the owner of an air-supported structure may be designated by the commissioner to perform the annual inspection of the owner's air-supported structure and blower. An owner designated pursuant to this paragraph shall perform the inspection according to applicable standards. The owner shall submit in the format required

by the commissioner an affidavit attesting to the performance of the inspection, correction of code violations, and other required information.

*b. Annual inspection by a division of labor services inspector.* Unless an inspection is waived pursuant to Iowa Code section 88A.13, or the inspection is performed by the owner pursuant to paragraph 61.4(1) “a,” a division of labor services inspector shall inspect covered equipment prior to operation.

*c. Major modification inspection.* After covered equipment has undergone a major modification, the covered equipment must pass an inspection by a division of labor inspector before it is put back into use.

**61.4(2) Safety order.** If the division of labor services inspector finds a code violation, the inspector will issue a safety order requiring that the condition be corrected. The deadline for correction of the code violation shall be set forth in the safety order. If the inspector finds one or more code violations pertaining to more than one-half of the seating capacity of an amusement ride, the amusement ride shall not be operated until the violations are corrected. If code violations pertain to one-half or less of the seating capacity of an amusement ride, the amusement ride may be shut down at the discretion of the inspector.

**61.4(3) Cessation order.** If the inspector identifies covered equipment that is hazardous or unsafe, the inspector shall issue a cessation order. The commissioner shall establish that the code violation is corrected before operation of the covered equipment is resumed.

**875—61.5(88A) Amusement inspection sticker.** Covered equipment shall not be operated without a current sticker.

**61.5(1)** After covered equipment has passed an annual inspection by the division of labor services inspector, the division of labor services inspector shall affix an amusement inspection sticker to a basic part of the covered equipment in such a manner as to be readily accessible by the inspector.

**61.5(2)** After the commissioner receives satisfactory proof of inspection from an owner designated by the labor commissioner pursuant to paragraph 61.4(1) “a,” the commissioner shall mail the sticker to the owner. The owner shall properly affix the sticker to a basic part of the air-supported structure or blower before operation.

**61.5(3)** After covered equipment passes a major-modification inspection, a new amusement inspection sticker will be issued.

**61.5(4)** Before covered equipment is sold, the seller shall remove the amusement inspection sticker. If a current amusement inspection sticker is no longer legible, the operator may request a replacement sticker.

**875—61.6(88A,252J,261,272D) Termination, denial, suspension, or revocation of an operating permit.**

**61.6(1)** All active operating permits shall terminate automatically on December 31 of the year of issuance.

**61.6(2)** The commissioner may suspend or revoke an operating permit for any of the following reasons:

- a.* Negligence in the operation of covered equipment;
- b.* Repeated failure to perform or document proper daily inspections;
- c.* Misrepresentation of material information required as a part of the operating permit application package;
- d.* Failure to comply with a safety order or cessation order issued by the commissioner;
- e.* Operation of covered equipment in disregard of public health, safety and welfare;
- f.* Termination of the required insurance coverage;
- g.* Failure to pay a liquidated debt owed to the commissioner;
- h.* Receipt by the commissioner of a certificate of noncompliance;
- i.* Failure of an operator to comply with the proper procedures;
- j.* Failure of an operator to provide an adequate number of properly trained and qualified assistants and attendants; or

k. Submission of a false affidavit of annual inspection by the owner of an air-supported structure.

**61.6(3)** The commissioner may deny an application for an operating permit if the application packet is inadequate or for any reason set forth as grounds for suspension or revocation of an operating permit.

**875—61.7(17A,88A,252J,261,272D) Procedures for revocation, suspension, or denial of an operating permit or amusement inspection sticker.** The procedures set forth in this rule govern the revocation, suspension or denial of an operating permit or amusement inspection sticker.

**61.7(1)** If the commissioner initiates revocation, suspension or denial due to the receipt of a certificate of noncompliance, the applicable procedures of Iowa Code chapter 252J, 261, or 272D shall apply.

**61.7(2)** In the event that immediate action is required due to imminent danger to the public health, safety or welfare, the following procedures shall apply:

a. The commissioner shall prepare a safety order describing the hazardous condition and shall give the operator, or the operator's representative on site, a copy of the safety order.

b. The commissioner shall remove the amusement inspection sticker or stickers from covered equipment as necessary to protect the public health, safety or welfare.

c. The commissioner shall proceed as quickly as feasible to give the operator an opportunity for a hearing as set forth in subrule 61.7(3).

**61.7(3)** In all other cases, the following procedures shall apply:

a. The commissioner shall serve a notice by restricted certified mail to the address listed on the operating permit application or by other service as permitted by Iowa Code chapter 17A.

b. The operator shall have 20 days to file a written notice of contest with the commissioner. If the operator does not file a written notice of contest within 20 days of receipt of the notice, the action stated in the notice shall automatically be effective.

c. The hearing procedures in 875—Chapter 1 shall govern.

d. Within five business days of final agency action revoking or suspending an operating permit, the operator shall forfeit the operating permit to the commissioner.

**875—61.8(88A) Payments.** Fees due for inspections and operating permits shall be paid by money order or certified check unless the commissioner has given prior approval for a check written on a business account.

These rules are intended to implement Iowa Code chapters 17A, 88A, 252J, 261, and 272D.

ITEM 2. Rescind 875—Chapter 62 and adopt the following **new** chapter in lieu thereof:

CHAPTER 62  
SAFETY RULES FOR AMUSEMENT RIDES, AMUSEMENT DEVICES,  
AND CONCESSION BOOTHS

**875—62.1(88A) Scope.** Rule 875—62.2(88A) applies to all covered equipment. The remaining rules of this chapter apply to all covered equipment, except a bungee jump covered by 875—Chapter 63.

**875—62.2(88A) Other codes.**

**62.2(1)** Carnivals, fairs, operators, and covered equipment may be regulated by city or county ordinances. Iowa Code chapter 92 and 875—Chapter 32 concerning child labor apply when an operator has employees who are under the age of 18. Iowa Code chapters 91A and 91D and 875—Chapters 35 and 215 to 218 govern payment of wages to an operator's employees. Nothing in 875—Chapters 61 through 63 shall be viewed as providing an exemption, waiver, or variance from any otherwise applicable regulation or statute.

**62.2(2)** State fire marshal rules set forth at 661—Chapter 201, General Fire Safety Requirements, are adopted by reference.

**62.2(3)** The following occupational safety and health standards are adopted by reference:

a. 29 CFR 1910, Subpart D, Walking-working surfaces;

- b. 29 CFR 1910, Subpart H, Hazardous material;
- c. 29 CFR 1910, Subpart I, Personal protective equipment;
- d. 29 CFR 1910.147, Control of hazardous energy (lockout/tagout);
- e. 29 CFR 1910.151, Medical services and first aid;
- f. 29 CFR 1910, Subpart N, Materials handling and storage;
- g. 29 CFR 1910, Subpart O, Machinery and machine guarding;
- h. 29 CFR 1910, Subpart Q, Welding, cutting and brazing; and
- i. 29 CFR 1910, Subpart S, Electrical.

**875—62.3(88A) Site requirements.**

**62.3(1) Design.** The grounds of a fair or carnival shall be designed according to the following criteria:

- a. Clearance around covered equipment shall meet or exceed the manufacturer's recommendations.
- b. Clearance around covered equipment shall be at least 6 feet unless a fence that is designed by the manufacturer as an integral part of the equipment is properly installed.
- c. Clearance between covered equipment and a facility for cooking shall be at least 10 feet.
- d. Walkways shall be wide, unobstructed, and open at each end.
- e. Walkways through concession booth backyards and over water lines and electrical lines shall be avoided.
- f. Intermingling of water lines and electrical lines shall be avoided.
- g. Guy wires, braces and ropes used for support:
  - (1) Shall not be placed in walkways or in the entrances or exits for covered equipment; and
  - (2) Shall be clearly marked with streamers or other devices when located adjacent to walkways.
- h. Stakes shall be covered.

**62.3(2) Housekeeping.** Adequate containers for refuse shall be provided. Accumulations of trash shall be removed promptly.

**62.3(3) Lighting.** Entrances and exits for covered equipment shall be provided with at least 5 foot-candles of light measured at grade level. No less than 10 foot-candles of lighting shall be provided at all work levels for assembly and disassembly of covered equipment.

**62.3(4) Internal combustion engines.** Internal combustion engines shall be a minimum of 5 feet from an air-supported structure and shall be guarded or fenced to prevent patron exposure or access. An internal combustion engine operated in an enclosed area shall be provided with fresh-air intake and an exhaust discharge flue.

**62.3(5) Tents.** A tent enclosed with walls or sides and erected over covered equipment during operation or assembly of the covered equipment shall resist flame propagation after weathering. The operator shall have a certificate or a test report indicating the material meets the flame propagation performance criteria for tents set forth in Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, NFPA 701-2010.

**62.3(6) Flammable waste and materials.** An operator shall provide identified covered and labeled metal containers for flammable waste. The containers shall be available to staff and attendants but shall not be accessible to patrons.

**62.3(7) Storage of hazardous or flammable materials.** Storage of more than 50 gallons of fuel, other flammable material, or hazardous gas is not permitted in any area accessible to the public.

**62.3(8) Walking surfaces.** Entrances and exits for covered equipment shall be adequate, unobstructed, and in accordance with the manufacturer's instructions. Hazards such as protruding nails, splinters, holes, loose boards, debris, obstructions, and projections are prohibited. Stairways, ramps and railings that meet the requirements of 29 CFR 1910.23 shall be provided where patrons enter or exit covered equipment above or below grade.

**62.3(9) Fences.** Fences or other barriers shall be staked or sandbagged securely to prevent movement. Placement of fences shall be consistent with the recommendations of the manufacturer. If

the manufacturer's recommendation regarding fences is not available, fences shall be located to keep patrons at least 6 feet away from moving parts.

**62.3(10) Crowd control.** Chains, bars, gates or similar devices shall be used to direct and control patrons in a queue line.

**62.3(11) Setup.** Operators shall follow the manufacturer's instructions to ensure that covered equipment is level and stable. If the manufacturer's instructions are not available, the following shall apply:

- a. Permanent rides shall be placed on poured, reinforced concrete.
- b. Blocking for temporary rides shall meet the following criteria:
  - (1) Blocking shall be wider than it is high.
  - (2) The top level of the blocking shall be wider than the mud sill or landing gear.
  - (3) Blocks shall not be soft, damaged, deteriorated, hollow, porous, or brick.
  - (4) Blocking shall be placed on ground that was leveled by digging rather than by filling.
  - (5) Voids larger than 1/4 inch between blocks are prohibited.
  - (6) Two or more layers of blocks shall be crossed.

**875—62.4(88A) Design and manufacture of covered equipment.** This rule sets forth requirements for the design and manufacture of all covered equipment, except a bungee jump covered by 875—Chapter 63.

**62.4(1) Codes adopted by reference.** ASTM F2374-10 shall apply to all air-supported structures notwithstanding the definition and use of the phrase "inflatable amusement device" in ASTM F2374-10.

a. *All covered equipment.* Effective July 1, 2016, all covered equipment shall comply with National Electric Code, NFPA 70-2014.

b. *Tramways.* All tramways subject to the rules of this chapter and in use prior to July 1, 2016, shall be designed and tested in accordance with the ANSI B77.1 standard in effect at the time of installation.

c. *New covered equipment.* Effective July 1, 2016, new covered equipment and covered equipment undergoing a major modification shall be designed and tested in accordance with ANSI B77.1-2011 and ANSI B77.1A-2012 and ASTM F1159-15a, F1193-14, F1957-99(2011), F2007-12, F2137-15, F2291-15, F2374-10, F2375-09, F2376-13, F2460-11, F2959-14, and F2960-15, as applicable.

d. *Existing covered equipment.* Covered equipment manufactured before July 1, 2016, must comply with the applicable design criteria of subrule 62.4(2) through July 1, 2021. After July 1, 2021, covered equipment, except tramways, shall meet the criteria for service-proven equipment set forth in ASTM F2291-15.

**62.4(2) Design criteria.** Structural materials and construction of covered equipment shall conform to recognized engineering practices, procedures, standards and specifications. The design, materials and construction features shall incorporate a safety factor of 5 or alternative safety factors recommended by the original manufacturer or by a professional engineer with credentials and experience acceptable to the commissioner.

**62.4(3) Data plate.** A manufacturer's data plate in compliance with ASTM F1193-14, section 10, shall be affixed to covered equipment.

**62.4(4) Speed-limiting device.** Covered equipment capable of exceeding its maximum safe operating speed shall be provided with a speed-limiting device. Steam engines that require an overspeed throttle setting to initiate the operation are exempt from the requirement of this subrule.

**62.4(5) Patron restraint and containment.** Covered equipment shall be designed to safely contain and restrain patrons during the intended action. Any surface within reach of a patron shall be smooth, rounded, and free from projections such as bolts, screws, or splinters. Padding shall be installed to prevent or minimize the possibility of injury.

**62.4(6) Safety stop devices.** Electrical safety stop devices shall cause covered equipment to fail safe in the event of power failure or any malfunction.



**62.4(7) Chains.** If a chain is used as a safety device or in a stress-bearing application, the chain shall be certified with adequate load-carrying capacity. Twisted wire or stamped chain shall not be used for safety devices or in stress-bearing applications.

**62.4(8) Front openings and awnings.** Front openings and awnings shall be stabilized with safety latches, safety pins, or other devices.

**62.4(9) Shooting galleries.** A shooting gallery shall use only equipment, shells, pellets, and bullets designed for shooting galleries. Means shall be provided to prevent turning the weapon away from the intended target.

**62.4(10) Flying objects.** Where flying objects such as darts, balls, pellets, shot, and bullets are a potential hazard:

- a. Ricocheting shall be prevented by absorbent wings or panels; and
- b. Absorbing walls, sandbags, or other mechanisms shall be installed along the bottom, back, and sides of the booth to protect passersby.

**875—62.5(88A) Maintenance of covered equipment.** An operator shall conduct periodic inspections, repairs, tests, and maintenance as set forth in this rule, the manufacturer's recommendations, ANSI B77.1-2011 and ANSI B77.1A-2012 and ASTM F770-15, F1159-15a, F1193-14, F2007-12, F2137-15, F2374-10, F2375-09, F2376-13, F2460-11, F2959-14, and F2960-15, as applicable. ASTM F2374-10 shall apply to all air-supported structures notwithstanding the definition and use of the phrase "inflatable amusement device" in ASTM F2374-10. An operator shall make a written record of all inspections, maintenance, tests, and repairs of covered equipment, and the records shall be available to the commissioner.

**62.5(1) Pressure equipment.** The operator shall inspect and maintain all air and gas compressors, tanks, piping and equipment pursuant to the manufacturer's recommendations.

**62.5(2) Wire rope rollers, drums and sheaves.** The operator shall periodically inspect and maintain for cleanliness and safety the mechanical devices, such as rollers, drums and sheaves, that brake, control, or come into contact with wire rope. The operator shall immediately replace mechanical devices that have broken or damaged parts, missing pieces, undue roughness or uneven wear.

**62.5(3) Mechanical members.** The operator shall periodically inspect pinions, frames, sweeps, eccentrics and other mechanical members for wear, cracks and other signs of deterioration. The operator shall make necessary repairs.

**62.5(4) Bearings.** The operator shall periodically inspect, lubricate, clean and repair bearing surfaces, ball joints and other single or multiple direction mechanical surfaces.

**62.5(5) Gears.** The operator shall keep gears properly aligned and in good repair.

**62.5(6) Nondestructive testing.** The operator shall ensure that appropriate nondestructive testing (NDT) is conducted and that documentation is available for review. NDT shall be performed at the following times:

- a. At intervals recommended by the manufacturer;
- b. When required by the commissioner due to a welded repair;
- c. When required by the commissioner due to a visual indication of a potentially hazardous condition; and
- d. When recommended by a bulletin prepared according to ASTM F1193-14.

**62.5(7) Electrical wiring.** Electrical wiring shall meet the requirements of National Electrical Code, NFPA 70-2014. The operator shall regularly inspect wiring for wear, cracks, or other signs of deterioration and shall replace worn wiring.

**62.5(8) Patron restraint.** The operator shall inspect retaining, restraining and containing devices daily before use and shall immediately repair or replace worn or damaged areas.

**62.5(9) Hydraulic systems.** The operator shall inspect each hydraulic system for leaks, damaged pipes, and worn or deteriorated hoses. Material that hinders visible inspection is prohibited. The operator shall make appropriate repairs.

**62.5(10) Relief devices.** The operator shall periodically exercise pressure relief valves or devices to ensure that they operate properly. The operator shall periodically inspect pressure relief devices to ensure that they are set at appropriate limits.

**62.5(11) Wire rope inspection.** The operator shall regularly inspect the entire length of each wire rope according to the manufacturer's recommendations. At a minimum, wire rope shall be inspected each time covered equipment is set up.

**62.5(12) Wire rope replacement.** The operator shall replace a wire rope if:

a. There are six or more distributed broken wires in one rope lay or three broken wires in one strand in one rope lay;

b. There is more than one broken wire in one rope lay and one of the following conditions exists:

(1) The wire rope is subject to constant pressure during operation, assembly, or disassembly of covered equipment;

(2) The wire rope is subject to surge shocks; or

(3) The wire rope could cause serious injuries by its failure; or

c. At least one of the following conditions exists on at least one location on the wire rope:

(1) Abrasion, nicking, scrubbing or peening causing loss of more than one-third of the original diameter of the outside wires;

(2) Severe corrosion or rust;

(3) Severe kinking, crushing, bird-caging or other damage resulting in distortion of the rope structure;

(4) Heat damage;

(5) For a rope with an original diameter of 3/4 inch or less, a loss in diameter of more than 3/64 inch;

(6) For a rope with an original diameter of 7/8 inch to 1 1/8 inch, a loss in diameter of more than 1/16 inch; or

(7) For a rope with an original diameter of 1 1/4 inches to 1 1/2 inches, a loss in diameter of more than 3/32 inch.

**62.5(13) Wire rope repair.** Without lengthening or splicing, the operator shall replace the entire length of a wire rope that is damaged in one location with new rope of equivalent design and capacity. However, if feasible, wire rope that is worn near an attachment point may be repaired by shortening the length of the wire rope, rather than by replacing the entire rope; and wire ropes on tramways may be lengthened or repaired by splicing in accordance with the applicable ANSI code.

**62.5(14) Rope-fastening devices.** The operator shall inspect couplings, sockets and fittings to ensure that they are in accordance with the instructions and specifications of the designer, engineer or manufacturer.

**62.5(15) Wood components.** The operator shall inspect footings, splices, uprights, track timbers, ledgers, sills, laps, bracing, flooring and all other wood components of covered equipment for deterioration, cracks, or fractures. The operator shall replace defective wood members with material of equal or greater strength and capacity.

The operator shall remove a sufficient amount of soil around piling or wood members embedded in dirt to check for deterioration. When a wood piling requires replacement, the operator shall install a concrete pier. The top of the pier shall be installed so that the attached wood member is not exposed to dirt or water accumulation.

**62.5(16) Welding, cutting, or brazing.** Welding, cutting, or brazing shall not be performed where the point of operation is more than 4 feet above grade if patrons are on site. Where the point of operation is less than 4 feet above grade, welding, cutting or brazing may be performed if at least one of the following applies:

a. Patrons are not on site.

b. Patrons are separated from the point of operation by a solid barrier.

c. A fence or similar barrier is erected to keep the public at least 150 feet from an arc welding operation that uses an electrode with a diameter of 3/16 inch or less.

d. A fence or similar barrier is erected to keep the public at least 35 feet from gas welding, soldering, cutting or brazing of materials 1/2 inch thick or less.

e. A fence or similar barrier is erected to keep the public at least 50 feet from gas welding, soldering, cutting or brazing of materials more than 1/2 inch thick.

**62.5(17) Fasteners.** The operator shall inspect nails, bolts, lag bolts and other fasteners for tightness, torque, and deterioration. The operator shall follow the manufacturer's recommendations for torque, replacement intervals, and fastener types.

**62.5(18) Brakes and rollback devices.** Brakes and rollback devices shall be inspected and maintained according to the manufacturer's recommendations.

**875—62.6(88A) Operations.** Operations shall conform to ANSI B77.1 and ANSI B77.1A-2012 and ASTM F770-15, F1957-99(2011), F2007-12, F2137-15, F2374-10, F2375-09, F2376-13, F2460-11, and F2959-14, as applicable. ASTM F2374-10 shall apply to all air-supported structures notwithstanding the definition and use of the phrase "inflatable amusement device" in ASTM F2374-10.

**62.6(1) Attendants and assistants.** The operator shall provide a sufficient number of competent, trained workers, who shall be recognizable by their uniforms. Covered equipment shall have continuous, direct supervision while in use by a patron.

a. Each attendant of a concession booth, except a shooting gallery or dart game, shall be at least 14 years of age. All other attendants shall be at least 18 years of age.

b. Each assistant shall be at least 16 years of age.

c. Each attendant and assistant shall be trained according to ANSI B77.1 and ANSI B77.1A-2012 and ASTM F770-15, F2007-12, F2460-11, and F2959-14, as applicable. Training documentation shall be available to the commissioner.

d. An attendant shall have control of the covered equipment when it is in operation. When the covered equipment is shut down, provision shall be made to prevent unauthorized operation.

e. Under normal operations, the duties of an assistant shall be limited to securing or removing seat restraints; checking height compliance; and loading and unloading patrons. In case of emergency, an assistant who has received appropriate training may terminate operations.

**62.6(2) Signal systems.** When an attendant does not have a clear view of the point where passengers are loaded or unloaded, signal systems shall be provided and utilized for controlling, starting and stopping covered equipment. Where coded signals are required, the code of signals shall be printed and kept posted at both the attendant's station and the location from which the signals are given. Attendants who use the signals shall be trained in their use. Signal systems shall be tested each day prior to operation of the covered equipment. Covered equipment that requires a signal system shall not be operated if the system is not performing correctly.

**62.6(3) Overspeeding and overloading.** An attendant shall not load covered equipment beyond its rated capacity nor operate the covered equipment at a speed other than that prescribed by the design engineer or manufacturer.

**62.6(4) Refueling.** Fuel tanks for internal combustion engines should be large enough to run without interruption during normal operating hours. Where it is impossible to provide tanks of proper capacity for a complete day's operation, the covered equipment shall be shut down and evacuated during refueling.

**62.6(5) Safety stop device.** After actuation of a safety stop device, the cause of the actuation shall be determined and corrected before operation of covered equipment is resumed. No person shall operate covered equipment if a safety stop device has been bypassed.

**875—62.7(88A) Patrons.**

**62.7(1) Notice to patrons.** The operator shall post signs as set forth in Iowa Code section 88A.16.

**62.7(2) Patron injury report.** Where covered equipment is operated, the operator shall make available an injury report form for use by patrons. The form shall comply with Iowa Code section 88A.15.

**62.7(3) Emergency procedure.** When lightning, high wind, tornado warning, severe storm warning, fire, violence, riot or civil disturbance creates a direct threat to patrons, the operators, assistants, and

attendants shall cease operation of covered equipment and evacuate all patrons. Operation shall not resume until conditions have returned to a normal, safe operating environment.

**62.7(4) Medical and first aid.** The operator shall make available to patrons the same medical and first-aid provisions that are available to employees pursuant to 29 CFR 1910.151.

**62.7(5) Evacuation plan.** The operator shall plan for prompt retrieval of patrons from covered equipment that will not operate.

These rules are intended to implement Iowa Code chapter 88A.

ITEM 3. Adopt the following new 875—Chapter 63:

CHAPTER 63  
SAFETY RULES FOR BUNGEE JUMPS

**875—63.1(88A) Definitions.**

*“Air bag”* means a device that cradles the body by using an air release breather system to dissipate the energy due to a fall, thereby allowing the jumper to land without an abrupt stop or bounce.

*“Approved operating site”* means the area, including the preparation area, the jump space, the landing area and the recovery area, reflected on the site plan drawings submitted to the commissioner by the operator.

*“Bungee catapulting”* means the action by which a jumper is held on the ground while the bungee cord is stretched causing the jumper to fly up when the jumper is released.

*“Bungee cord”* means the elastic rope to which the jumper is attached.

*“Bungee jump”* means the covered amusement device. “Bungee jump” does not mean a device allowing a patron to jump on a trampoline while attached to one or more bungee cords.

*“Bungee jumping”* means the action by which a jumper free falls from a height and the jumper’s descent is limited by attachment to the bungee cord.

*“Bungee jump operation”* means a site at which bungee jumping is conducted.

*“Carabiner”* means a shaped metal or alloy device used to connect sections of the jump rigging, equipment or safety gear.

*“Cord”* means a bungee cord.

*“Dynamic load”* means the load placed on the rigging and attachments by the initial free fall of the jumper and the bouncing movements of the jumper.

*“Equipment”* means each component that is utilized in a bungee jump operation, including devices used to raise, lower, and hold loads.

*“Fence”* means a structure designed and constructed to restrict people, animals and objects from entering the jump area.

*“G-force”* means acceleration felt as weight.

*“Jump area”* means the ground level area of the jump space.

*“Jump direction”* means the direction a jumper jumps when leaving the platform from the jump point. Jump direction is not affected by whether the jumper faces forward, backward or sideways.

*“Jumper”* means the person who, while attached to a bungee cord, falls or jumps from a platform or structure.

*“Jump harness”* means an assembly worn by a jumper and attached to a bungee cord.

*“Jump height”* means the distance from the jump point to the position on the ground where an object dropped from the jump point would impact in the absence of an air bag or other impediment.

*“Jump master”* means the person who is responsible for the bungee jump operation and who takes a jumper through the final stages to the actual jump or release.

*“Jump point”* means the location on the platform from which the jumper leaves the platform.

*“Jump space”* means the cylinder-shaped space with a center line extending downward from the jump point along the line of the jump height. The top of the jump space cylinder is at least 10 feet above the jump point. For jumps over land, the bottom of the jump space cylinder is the air bag. For jumps over water, the bottom of the jump space cylinder is the water surface. The distance from the jump point

to the bottom of the jump space must be the maximum system length plus at least 30 feet. The radius of the cylinder must be at least 70 percent of the jump height.

*“Landing area”* means the surface where the jumper lands. If a lifting device moves the jumper so that landing occurs away from the jump area, the area covered by the movement of the lifting device shall be considered part of the landing area.

*“Loaded length”* means the length of the bungee cord when the cord is extended to its fullest designed length.

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

*“Maximum system length”* means the maximum extended length of a bungee cord system including all attachments.

*“Mechanically powered lowering system”* means a system that utilizes a machine, rather than a human or other power source, to lower the jumper to the landing area.

*“Platform”* means the apparatus that is attached to a structure and from which a jumper falls or jumps.

*“Preparation area”* means the area where the jumper is registered, weighed, notified of potential risks, and otherwise prepared for the jump.

*“Recovery area”* means the area next to the landing area where the jumper may recover from the jump before exiting the bungee jump operation site.

*“Rigging system”* means the bungee cord plus any combination of components that connect the jumper through the bungee cord to an attachment point on the structure, lifting device or platform.

*“Rigging system attachment point”* means a device on the structure, lifting device or platform to which the rigging system is connected.

*“Safety line”* means a line used to connect a safety harness or belt to an anchor point.

*“Sandbagging”* means the practice of loading excess weight to a jumper in order to gain extra momentum on the rebound.

*“Site operating manual”* means the document containing the procedures and forms for the operation of bungee jumping activities and equipment.

*“Structure”* means a tower or similar structure used for bungee jumping.

*“Tandem jumping”* means the practice of having two or more people harnessed together while they jump or fall simultaneously from the same jump platform.

**875—63.2(88A) Prohibited activities.** The following activities are prohibited:

1. Bungee catapulting where an overhead obstruction exists;
2. Sandbagging;
3. Tandem jumping; and
4. Jumping from a bridge, television tower, crane, grain bin, hot air balloon or any height not designed for the purpose of bungee jumping.

**875—63.3(88A) Site requirements.**

**63.3(1) Storage.** Adequate storage shall be provided to protect equipment from physical, chemical and ultraviolet-ray damage. The storage area shall be secured against unauthorized entry.

**63.3(2) Communications.**

- a. There shall be a public address system in operation during the hours of business.
- b. A radio communication link shall be established between the platform and the staff responsible for jumper registration, landing, and recovery.
- c. There shall be a means on site to communicate with local emergency responders.
- d. A clearly visible sign shall be placed at the entrance to the operating site setting forth medical restrictions for jumpers, the minimum-age requirement of 18 years of age, and instructions for jumpers.

**63.3(3) Wind meter:** An anemometer shall be installed in accordance with the manufacturer’s recommendations and in a location easily visible to the staff.

**63.3(4) Lighting.** Adequate lighting shall be provided at a site that operates at any time during the period of one-half hour prior to sunset until one-half hour after sunrise. At a minimum, the lighting system shall be capable of lighting the jump platform, the jump space and the landing area.

**63.3(5) Fences.** The operator shall use fences in compliance with ASTM 2291-14, Part 14, to limit access to the site.

**875—63.4(88A) Design.**

**63.4(1) Platform.** A platform shall:

- a. Be capable of supporting at least five times the rated capacity or maximum intended load of the platform. If the jump equipment is attached to the platform as distinct from the structure, the dynamic load factor shall be added to the rated capacity or maximum intended load;
- b. Be attached with devices and to a part of the structure which is able to support at least five times the weight of the platform plus the rated capacity or maximum intended load;
- c. Have a slip-resistant floor surface;
- d. Have safety harness anchor points that are designed and located to facilitate ease of movement on the platform;
- e. Have a permanent enclosure, separate from the jump point, to contain the jumper during preparations such as fitting the jumper with a jump harness;
- f. Be equipped with a gate across the jump point. The gate shall open to the inside of the platform and shall have a safety lock or restraining device to prevent accidental opening;
- g. Be permanently marked with the maximum capacity of the platform and the rated capacity or maximum intended load; and
- h. Be configured to ensure that a jumper shall not come into contact with the supporting structure or tower during the jump.

**63.4(2) Lowering system.**

- a. The system for lowering the jumper to the landing area shall be capable of supporting at least five times the rated capacity or maximum intended load of the system. The lowering system shall be mechanically powered and shall not be capable of free fall.
- b. There shall be under the control of site personnel and described in the site emergency plan an alternative method for jumper recovery.

**63.4(3) Bungee cord specifications.**

- a. The bungee cords shall be designed and tested to perform within the prescribed limits of stretch and load as stated in this subrule. The cord shall be made from natural or synthetic rubber or rubber blend. The extended length of the cord shall be consistent each time the same load is applied.
- b. The G-force on a jumper using a waist and chest harness shall not exceed 4.5. The G-force on a jumper using an ankle harness shall not exceed 3.5.
- c. The operator shall ensure that the minimum factor of safety for any cord configuration attached to a jumper is at least 5. The cord configuration's minimum breaking strength divided by the maximum dynamic load possible for a jumper must be equal to or greater than 5.
- d. The design, manufacturing and testing of the bungee cords shall meet the following specifications:
  - (1) In a single-cord system, the binding shall hold the cord threads in the designed positions. The binding shall have the same characteristics as the cord itself. In a multiple-cord system, the cords shall be bound together in a manner that prevents potential entanglement of the jumper. The binding shall not damage or affect the performance of the cords.
  - (2) A bungee cord shall be designed and tested to perform in accordance with this rule.
  - (3) A load-versus-elongation curve shall be used to calculate the maximum G-force and factor of safety of the lot of bungee cords tested. These test results shall be readily available to the commissioner upon request.
  - (4) The end connections shall have a minimum safety factor of five times the maximum dynamic load for the bungee cord configuration. 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 shall meet

its own independent end connection. On multiple-cord systems, end attachment points shall be bound together in a protective sheath that allows the individual ends to move with respect to each other.

(5) The operator shall ensure that the manufacturer of a bungee cord performs conclusive minimum break strength testing on a representative sample of all manufactured bungee cords. Construction of bungee cord samples shall be consistent with the manufacturer's standard methods, including bungee cord loop end connections that meet the specifications in this rule. The tests shall be performed or supervised by an independent certified testing authority or an independent licensed professional engineer. The testing authority shall determine the ultimate tensile strength of each test specimen and use the lowest failure value recorded as the ultimate tensile strength value for the corresponding lot of bungee cords. The ultimate tensile strength is reached when the applied load reaches a maximum before failure. Test results shall be readily available to the commissioner upon request.

**63.4(4) *Jump harness and hardware.***

a. The harnesses, webbing, bindings, ropes and hardware shall be capable of supporting at least five times the rated capacity or maximum intended load.

b. A jumper shall be secured to the bungee cord at two separate points on the jumper's body. The jump harness system shall be one of the following:

- (1) A full body harness with two different and separate attachment points.
- (2) A waist harness used with a shoulder harness.
- (3) An ankle harness system with a safety line to a waist harness or a full body harness.

c. Harnesses shall be available to fit the range of patron sizes accepted for jumping.

d. Harnesses shall be specifically designed and manufactured for mountaineering or bungee jumping.

e. The load-supporting slings or webbing shall be flat or tubular mountaineering webbing or its equivalent. Minimum breaking strength shall be 6,000 pounds. Slings or webbings shall be formed by sewing or shall be tied properly with a water knot with taped ends.

f. Carabiners shall be the steel screw, gate type with a minimum breaking strength of 6,000 pounds. The carabiners shall be designed and constructed using the standards for mountaineering gear.

g. The ropes, pulleys and shackles used to raise, lower or hold the jumper shall have a minimum breaking strength of 6,000 pounds. The pulleys shall be compatible with the rope.

h. The rigging system shall be attached to at least two rigging system attachment points. Each rigging system attachment point shall meet or exceed the following:

(1) Each rigging system attachment point shall have a safety factor of 5 and shall be capable of bearing a weight of at least 8,000 pounds.

(2) If a rigging system attachment point is made of wire rope, it shall have swaged ends with the thimble eyes.

(3) If a rigging system attachment point is made of webbing, it shall be manufactured by a company that manufactures the devices for crane and rigging companies.

**63.4(5) *Landing area, recovery area and jump area.***

a. A jump over land requires the use of an air bag certified by the manufacturer to be capable of protecting a body falling from the height of the jump point.

(1) The minimum impact surface area of the air bag shall be as follows:

<b>Jump Height</b>	<b>Minimum Impact Surface Area</b>
0 - 99 feet	20 feet by 25 feet
100 - 149 feet	23 feet by 35 feet
150 - 200 feet	25 feet by 40 feet

(2) The air bag shall be in position before jumper preparation begins on the platform.

(3) Upon completion of a jump, the jumper shall be lowered into the landing area.

(4) The landing area shall be free of spectators at all times.

(5) The jump space shall be free of equipment and people when a jumper is being prepared on the jump platform and until the jumper lands in the landing area.

(6) A place for the jumper to sit and recover shall be provided close to, but outside, the landing area.

*b.* The following requirements apply where a body of water is used instead of an air bag:

(1) The size of the body of water shall meet the requirements for the minimum impact surface area set forth in this subrule for air bags.

(2) The minimum water depth of the minimum impact surface area shall be 10 feet.

(3) A vessel with at least two staff members shall be positioned nearby to recover jumpers. The recovery vessel's crew shall wear U.S. Coast Guard-approved life jackets. The recovery vessel shall be equipped with U.S. Coast Guard-approved life jackets for jumpers and with rescue equipment.

(4) The jump area shall be free of other vessels, floating or submerged objects, the public, and spectators. When the landing area is in open waters, it shall be defined by the deployment of buoys. Signs of appropriate size stating "BUNGEE JUMPING—KEEP CLEAR" shall be displayed.

*c.* The following requirements apply where a pool of water is used instead of an air bag:

(1) The pool size shall meet the requirements for the minimum impact surface area set forth in this subrule for air bags.

(2) The minimum water depth shall be 10 feet.

(3) Rescue equipment shall be available.

(4) Only the operators and participants of the bungee jump shall be within the landing area.

(5) The landing area shall be enclosed by a fence of adequate height and design to prevent persons other than operators and jumpers from entering.

(6) The pool shall conform to any applicable requirements enforced by the Iowa department of public health.

**875—63.5(88A) Maintenance.** The operator shall follow the inspection and testing recommendations of the equipment manufacturers. When those recommendations conflict with the testing and inspection provisions of this rule, the provisions affording the higher degree of safety shall be followed. Inspections, findings and corrective action shall be recorded in the site log.

**63.5(1) Tests and inspections by the operator.**

*a.* The jump rigging, harness, lowering system and safety gear shall be regularly inspected and tested as set forth in the site operating manual.

*b.* In accordance with the site operating manual, the ropes, webbing and bindings shall be inspected visually and by feel for signs of wear, fraying or damage.

*c.* The cord ends shall be inspected as often as the manufacturer specifies or no less than daily for wear, slippage or other abnormalities.

**63.5(2) Replacement of rigging and equipment.**

*a.* Hardware that displays surface damage shall be replaced immediately.

*b.* Hardware that has been subjected to an abnormal loading or impact against hard surfaces shall be replaced immediately.

*c.* Standard equipment, rigging or personal protective equipment shall be replaced immediately.

*d.* Bungee cords shall be replaced when they have been subjected to the maximum number of jumps recommended by the manufacturer, when they exhibit deterioration or damage, or when they do not react according to specifications. Retired bungee cords shall be cut into lengths of not more than 75 inches. The attachment points shall be retired when the cord is retired.

**63.5(3) Replacement equipment.** Replacement equipment shall be stored in a secure area to prevent tampering or vandalism. Replacement equipment for the following shall always be available on the approved operating site:

*a.* Bungee cords;

*b.* Rigging ropes;

*c.* Binding and ankle straps for jumpers;



- d. Jump harnesses; and
- e. Lifelines and clips.

**63.5(4) Identification of equipment.**

- a. Each bungee cord shall have its own permanent identification number.
- b. The form of identification may not damage or detract from the integrity of the material.
- c. The identification shall be clearly visible to the operators during daily operations.
- d. The identification of each piece of equipment shall be recorded in the site operating manual.

**875—63.6(88A) Operations.**

**63.6(1) Site operating manual.** The operator shall ensure that the site has an operating manual that includes the following elements:

- a. A site plan showing the fencing, the site furniture, the preparation area, the jump space, the jump area, the jump direction, the landing area and the recovery area.
- b. A site plan showing a profile of the site and defining the jump platform and its supporting structure, the maximum system length of the bungee cord, the jump space and the jump area.
- c. A complete description of each of the following:
  - (1) The system of operation;
  - (2) The components in the rigging system, including the manufacturer's specification or a laboratory test certificate of each component;
  - (3) All safety and rescue equipment;
  - (4) A job description for the personnel employed on the site and the minimum qualifications for each person;
  - (5) Emergency procedures for all foreseeable scenarios;
  - (6) Standard operating procedures for every person employed in processing the jumper;
  - (7) The procedure for reporting accidents and reportable incidents to the commissioner;
  - (8) Equipment inspection procedures, including inspection record keeping;
  - (9) Maintenance procedures; and
  - (10) The method of verifying and recording each jump master's qualifications.

**63.6(2) Emergency provisions and procedures.**

- a. Each approved operating site shall have a written emergency plan. The plan shall be made available to any local emergency service responsible for providing emergency rescue service.
- b. At least one member of a bungee jump operation staff shall have current first-aid and cardiopulmonary resuscitation certification and shall complete an annual refresher course that includes evaluation of hands-on skills from the American Red Cross or equivalent.
- c. For a jump over water, the jump master and at least one landing assistant shall have current lifeguarding certification from the American Red Cross or equivalent.
- d. Emergency lighting shall be available in case of power failure at a site that operates at any time during the period of one-half hour prior to sunset until one-half hour after sunrise. The emergency lighting system shall be capable of lighting the jump platform, the jump space and the landing area. The emergency lighting system shall have its own power source.
- e. A backup means of communication shall be available in case of a power failure.
- f. The jump master or operator shall cease jumping operations if wind speed exceeds 25 miles per hour or thunder is audible.

**63.6(3) Minimum staff requirements.**

- a. Prior to the opening of a bungee jump operation, the operator shall train site personnel to be familiar with the boundaries of the jump space, the jump area, the site operating manual and the emergency plan.
- b. A bungee jump operation shall have at least one jump master, one jump assistant, one landing assistant, and one registration assistant present at all times during which jumping is being conducted.
- c. The staff shall be easily identifiable by their clothing.
- d. Staff shall be briefed for each day's operations. This briefing shall include assignment of the designated jump master.

e. Each jump shall be directly controlled by a jump master.

**63.6(4) *Jump master.***

a. A jump master shall be at least 18 years of age, shall have assisted at least 25 jumpers, and shall have received a minimum of 30 hours of jump training.

b. A jump master shall have a thorough knowledge of the bungee jump site, its equipment, operating manual, procedures, emergency plan and staff duties.

c. A jump master shall:

(1) With the jump assistant, escort the jumper from the preparation area to the jump point;

(2) Select the appropriate bungee cord and adjust the rigging for each jump;

(3) Brief each jumper on the procedures for jumping, landing, lowering and recovery;

(4) Take the jumper through the final stages before the jump;

(5) Securely attach to the platform rigging bar or to the rigging the top end of the bungee cords before preparing the jumper;

(6) Be present at the jump point during each jump;

(7) Close the platform gate while no jumper is present;

(8) Direct the operation of the lowering system;

(9) Train other bungee jump operation staff; and

(10) Ensure that the procedures set out in the site operating manual are followed.

**63.6(5) *Jump assistant.*** The operator or jump master shall designate at least one individual to act as a jump assistant. The jump assistant shall:

a. With the jump master, escort the jumper from the preparation area to the jump point;

b. Assist the jump master in preparing the jumper;

c. Assist in attaching the jumper to the harness and rigging;

d. Perform check procedures;

e. Operate the lowering system; and

f. Assist in controlling the public.

**63.6(6) *Landing assistant.*** The operator or jump master shall designate at least one individual to act as a landing assistant. The landing assistant's duties include the following:

a. Assisting the jumper to the landing pad;

b. Assisting the jumper to the recovery area;

c. Overseeing the recovery of the jumper; and

d. Assisting in controlling the public.

**63.6(7) *Registration assistant.*** The operator or jump master shall designate at least one individual to act as a registration assistant at each bungee jump operation site. The registration assistant shall:

a. Register the jumper;

b. Inform each jumper that there are medical conditions that could be adversely affected by bungee jumping and that prior to jumping, the jumper should consult with a physician for more specific information regarding the medical risks;

c. Weigh the jumper and mark the jumper's weight on the jumper;

d. Control the movement of the jumper to the jump platform; and

e. Assist in controlling the public.

**63.6(8) *Jumper restrictions.***

a. The minimum age for jumping is 18 years of age.

b. A person who is visibly intoxicated or who is otherwise impaired shall not be allowed to jump.

**63.6(9) *Jumper registration.*** The operator shall ensure that a jumper provides the following information on the operator's registration form:

a. The jumper's contact information, including name, address, and telephone number.

b. The jumper's age and weight.

**63.6(10) *Equipment replacement.***

a. Jumping shall cease immediately when substandard equipment is identified.

b. The operator shall obtain from the bungee cord manufacturer a written verification of the maximum number of jumps for which a particular cord may be used. The written verification shall be kept on site and shall be available to the commissioner.

c. The operator shall keep a current, written record of each bungee cord used at the site. The bungee cord records shall be organized by permanent, unique identification number and shall include the number of jumps for each cord by date. The bungee cord records shall be available to the commissioner.

**63.6(11)** *Jump space and jump area.*

a. Persons other than a jumper and objects other than the jumper's equipment shall not be in the jump space at any time during jump operations.

b. Persons other than site personnel and objects other than air bags and similar safety devices shall not be in the jump area at any time during jump operations.

c. The jump space and jump area shall be identical to the jump space and jump area that the commissioner approved.

d. The preparation area shall be separate from the jump area.

These rules are intended to implement Iowa Code chapter 88A.

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