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**TITLE 685 REGULATED AMUSEMENT DEVICE
SAFETY BOARD**

LSA Document #06-106(E)

DIGEST

Temporarily adds rules to regulate bungee jumping and bungee jump facilities as provided in P.L.32-2006. Authority: SEA 81-2006, SECTION 4 (P.L.32-2006). Effective May 1, 2006.

SECTION 1. (a) The purpose of this document is to specify the:

- (1) site and site approval;**
- (2) testing of equipment;**
- (3) management of the operation;**
- (4) operating procedures;**
- (5) provisions; and**
- (6) emergency procedures;**

relating to bungee jump facilities and bungee jumping.

(b) Each bungee jump facility:

- (1) is subject to all other applicable provisions of 685 IAC 1; and**
- (2) shall be considered a separate amusement device.**

SECTION 2. The definitions in 685 IAC 1-3 and the following shall apply throughout this document:

(1) "Binding – ankle" means material used to wrap and hold together the jumpers' ankles. The binding is tied together and attached to the bungee cord.

(2) "Binding of cord" means material used to:

- (A) hold the cord threads in place; and**
- (B) protect the cord threads from damage.**

(3) "Board" means the regulated amusement device safety board established under IC 22-12-4.5.

(4) "Breaking load" means the stress or tension:

- (A) steadily applied; and**
- (B) just sufficient to break or rupture.**

(5) "Bumper" means a padded sleeve or covering on the:

- (A) bungee cord; and**
- (B) connecting straps or devices;**

to prevent the jumper from contacting or becoming entangled in the bungee cord or connecting straps or devices.

(6) "Bungee catapulting" or "reverse bungee jumping" means the sport, activity, or practice whereby a person is attached to a bungee cord that is stretched and then released, thus catapulting or otherwise launching the jumper into the air from a fixed position. The term does not:

(A) include the sport, activity, or practice whereby a participant is:

- (i) strapped into a bungee harness on the ground;**
- (ii) attached to a bungee cord; and**
- (iii) lifted directly from the ground into the air without the use of:**
 - (AA) a catapult;**
 - (BB) a slingshot; or**
 - (CC) another similar device; or**

(B) apply to other amusement devices or amusement attractions that may utilize a bungee cord as a component and:

- (i) the patron or patrons are contained in a rigid structural carrier; and**
- (ii) no overhead obstruction exists that may impact or otherwise strike the carrier or patron, thereby posing a hazard.**

"Ground", as used in this subdivision, includes the ground, an air bag or air cushion, a launch pad, or other similar object

from which the participant is lifted or released.

(7) "Bungee cord" means the elastic rope made of rubber, latex, or other elastic-type materials, whether natural or synthetic:

- (A) to which the jumper is attached; and
- (B) that lengthens and shortens and thus produces a bouncing action.

(8) "Bungee jumping" means a fall or jump from a height by an individual who is attached to an elastic cord that prevents the individual from hitting:

- (A) the ground;
- (B) water; or
- (C) another solid, semisolid, liquid, or elastic surface.

(9) "Department" means the department of homeland security established under IC 10-19.

(10) "Division" means the division of fire and building safety of the department.

(11) "Dynamic loading" means the load placed on the rigging and attachments by the:

- (A) initial free fall of the jumper; and
- (B) bouncing movements of the jumper.

(12) "Equipment" means each component that is utilized in a bungee jump facility, including power or manually operated devices to:

- (A) raise;
- (B) lower; and
- (C) hold;

loads.

(13) "Incident" means an event that could or does result in:

- (A) injury to a person;
- (B) damage to equipment; or
- (C) the interruption or stopping of bungee jump facility activities.

(14) "Jump assistant" means a person who does the following:

- (A) Assists the jump operator in preparing a jumper for jumping.
- (B) Operates the lowering system whereby the jumper is lowered to the landing pad.

(15) "Jump direction" means the direction in which a jumper is aimed when jumping from the jump point.

(16) "Jumper" means the person who falls from a height attached to a bungee cord.

(17) "Jumper harness" means an assembly to be:

- (A) worn by a jumper; and
- (B) attached to a bungee cord.

A jumper harness is designed to prevent the jumper from becoming detached from the bungee cord.

(18) "Jumper weight" means the weight of the jumper only.

(19) "Jump height" means the distance from where the jumper begins to fall to the bottom of the jump zone.

(20) "Jump master" has the same meaning as jump operator.

(21) "Jump operator" means a person who:

- (A) has responsibility for managing the bungee jump facility;
- (B) takes a jumper through the final stages to the actual jump or release; and
- (C) has direct control of the starting, stopping, or speed of the bungee jump facility.

(22) "Jump point" means the position from which the jumper falls or begins to fall.

(23) "Jump space" means the jump zone plus the safety space.

(24) "Jump zone" means the space bounded by the maximum designed movements of the jumper or any part of the jumper.

(25) "Karabiner" means a shaped metal or alloy device used to connect sections of any of the following:

- (A) Jump rigging.
- (B) Equipment.
- (C) Safety gear.

(26) "Landing area" means either of following:

- (A) The surface area directly under the jump space.
- (B) Where the lifting appliance moves the jumper so that landing occurs away from the jump space, the area covered by the movement of the lifting appliance or part of it, including the area where the jumper lands.

(27) "Landing pad" means the padded area on which the jumper is off-loaded by means of the lowering appliance or equipment after jumping.

(28) "Lateral direction" means the movement of the jumper measured at ninety (90) degrees to the designed jump direction.

- (29) "Launch" means a propelled jump.
- (30) "Launch point" means the point from which the jumper is launched.
- (31) "Loaded length" means the length of the bungee cord when extended to its fullest designed length when jumping.
- (32) "Moused" means the process of binding around the point and shank of a hook, pin, or shackle to prevent any load from slipping off.
- (33) "Operating manual" means the document that contains the procedures and forms for the operation of the bungee jump facility and equipment on the stated site.
- (34) "Operating system" means the system of processing a jumper through the jump methods used on a particular site. The term includes the following:
- (A) Registration.
 - (B) Preparation.
 - (C) Getting to the jump point.
 - (D) Methods of attachment.
 - (E) Jumping.
 - (F) The rigging and lowering system.
 - (G) The landing recovery method.
- (35) "Platform catapult" means the area on the ground from which the jumper is catapulted to a height from which the jumper falls.
- (36) "Platform mobile" means the apparatus attached to a lifting appliance from which the jumper falls or jumps.
- (37) "Platform permanent" means the apparatus attached to a fixed structure from which the jumper falls or jumps.
- (38) "Preparation area" means the area where the jumper is prepared for jumping that is any of the following:
- (A) A separate area on the ground.
 - (B) The support structure.
 - (C) Part of the platform.
- (39) "Professional engineer" has the meaning set forth in IC 25-31-1-2(b).
- (40) "Recovery area" means an area adjacent to the landing area where the jumper may recover from the jump before returning to the public area.
- (41) "Rigging system" means a combination of components that connects the jumper through the bungee cord to an attachment point on the structure, lifting appliance, or platform. The rigging system includes, but is not limited to, the following:
- (A) Ropes.
 - (B) Pulleys.
 - (C) Karabiners.
 - (D) Shackles.
 - (E) Lowering equipment.
- (42) "Safety belt" means a belt:
- (A) designed to fit around the waist of a person; and
 - (B) that can be attached to either:
 - (i) an anchor point; or
 - (ii) a safety lifeline.
- (43) "Safety factor" means the ratio obtained by dividing the breaking load of any piece of equipment by its safe working load.
- (44) "Safety harness" means an assembly to be worn by an employee of the owner or jumper. A safety harness is designed to:
- (A) be attached to a safety line; and
 - (B) prevent the wearer from becoming detached from the safety line.
- (45) "Safety line" means a line used to connect the safety harness or belt to an anchorage point or rail in situations where there is a risk of free fall.
- (46) "Safety space" means the space extending beyond the jump zone as a safety factor, that is, the space beyond the maximum designed movements of the jumper.
- (47) "Safe working load" or "SWL" means the maximum rated load that can be safely handled under specified conditions by a machine, equipment, or component of the rigging.
- (48) "Structure" means a permanent or temporary:
- (A) building;
 - (B) bridge;

- (C) tower; or
- (D) similar erection;

that is used, or proposed to be used, for bungee jumping.

(49) "Thread" means a single strand of material used in a bungee cord.

(50) "Unloaded length" means the length of the bungee cord lying on a horizontal flat surface without load or stress applied.

SECTION 3. (a) The owner shall obtain written approval for each site from the division before commencing the use of any bungee jump facility.

(b) The approval of the division shall be obtained annually for each location at which a bungee jump facility is to be operated.

SECTION 4. (a) Before commencing the use of any bungee jump facility, the owner shall submit to the division a professional engineer's report certifying that the design and construction of the structures, equipment, access ways, and operating areas meet the requirements of the 685 IAC 1 and one (1) or more nationally recognized standards developed to apply to bungee jump facilities and are certified by a professional engineer to be suitable for a bungee jump facility. The engineer's report shall also contain the following:

- (1) Site plans.
- (2) Safety zones, drawings, and specifications of equipment and structures.
- (3) Certification of the following:
 - (A) Safety air bag.
 - (B) The jumper safety harness.
 - (C) The jump worthiness of the bungee cords to be used.
 - (D) That the methods of attachment and location of attachment are the safest available.
- (4) An affidavit as set forth in SECTION 39 of this document.

(b) Engineering inspections by a professional engineer shall be conducted each and every time a bungee jump facility is substantially:

- (1) rebuilt; or
- (2) modified.

An inspector shall conduct an inspection annually and each time a bungee jump facility is relocated.

(c) The owner shall submit an affidavit of compliance that the amusement ride:

- (1) was inspected in person by the affiant; and
- (2) is in compliance with:
 - (A) the requirements of this SECTION; and
 - (B) all applicable rules adopted by the board.

The affidavit must be executed by a professional engineer not earlier than sixty (60) days before, but not later than, the date of the filing of the application with the division. The engineer's report shall be as set forth in SECTION 39 of this document.

(d) The owner shall have and maintain liability insurance in an amount of not less than one million dollars (\$1,000,000) per occurrence insuring the owner or lessee against liability for injury to person arising out of the use of a bungee jump facility. The owner shall provide written proof of insurance from the insurance carrier to the division not later than five (5) business days before commencing the use of any bungee jump facility in this state and upon request of the division. When:

- (1) a claim in excess of; or
- (2) a combination of claims exceeding;

one million dollars (\$100,000) [*sic.*] is made, the owner shall close the bungee jump facility until there is a reinstatement of insurance value and shall notify the department.

(e) Each and every professional engineer executing an affidavit as set forth in this document shall have and maintain professional liability insurance against liability for design and inspection of the bungee jump facility. The professional engineer shall provide to the owner and to the department a certificate of insurance documenting that the insurance policy:

- (1) has a minimum limit of one million dollars (\$1,000,000) per claim; and
- (2) does not exclude coverage for design of bungee jump facilities.

The certificate shall list the bungee jump facility owner as an additional insured and shall not be terminated without thirty

(30) days prior notice to the owner. Upon notice of termination of any professional liability policy, the owner shall immediately notify the department and close the bungee jump facility until there is a reinstatement of insurance.

SECTION 5. (a) The owner shall allow bungee jumping to be conducted only under the direct control of a jump operator.

(b) The jump operator shall immediately stop all bungee jumping operations when the wind speed exceeds the maximum wind speed as determined by a professional engineer for the safe operation of the bungee jump facility. The owner shall provide a method for constant monitoring of wind velocities at the jump site during any bungee jumping.

(c) Adjustments for the weight of each jumper shall be made by the jump operator's selection of bungee cord.

(d) In a bungee jump facility that utilizes a crane, the jumper shall be secured on the platform by a safety belt and lifeline at all times until the jump point is reached.

(e) In a bungee jump operation that utilizes a tower, the jumper shall be secured by a safety belt, lifeline, or bungee cord before reaching the jump point.

(f) All shackles shall be moused.

(g) In a bungee jump facility that utilizes a crane, at least two (2) employees of the owner, one (1) of whom must be a jump operator, shall accompany the jumper in the working platform or cage.

(h) In a bungee jump operation that utilizes a tower, at least two (2) employees of the owner, one (1) of whom must be a jump operator, shall accompany the jumper from the point of preparation at the jump platform to the jump point.

(i) The jumper shall be allowed to recover before being moved from the landing pad.

(j) The position of the jump point in relation to the tower or crane shall be constructed and maintained so as to prevent the jumper from coming into contact with any part of the tower or crane during the jump.

(k) Only:

(1) employees of the owner; and

(2) the jumper;

shall be allowed on the platform.

SECTION 6. (a) The owner shall provide a safety air bag for each bungee jump. The safety air bag shall cover the entire surface area of the jump space, including the area necessary for all rebound angles of the jumper. A professional engineer shall certify the height, width, and length of the safety air bag for the height of each bungee jump and the area necessary for all rebound angles. Each bungee jump facility shall be designed and operated in order to prevent a jumper from coming into contact with the safety air bag during the course of an incident-free jump. When a person comes into contact with the safety air bag during a jump, the owner shall do the following:

(1) Close the bungee jump facility.

(2) Redesign the bungee jump facility to prevent contact with the safety air bag.

(3) Provide a reinspection of the bungee jump facility by a professional engineer.

(4) Request a reinspection by the division before reopening the bungee jump facility.

(b) The safety air bag height shall be certified or rated by the air bag manufacturer for the height of the bungee jump.

(c) No bungee jump in this state shall exceed a height of one hundred (100) feet measured from the bottom of the jump point to the surface.

SECTION 7. (a) The platform permanent shall be operated with a minimum SWL reflecting a safety factor of not less than five (5), as determined by the maximum load for which the platform is designed and constructed. If the jump equipment is attached to the platform as distinct from the structure, the dynamic load factor shall be added to the platform load factor.

(b) Where the platform is not an integral part of the structure, the attachment devices and the part of the structure to which they are attached shall have a minimum safety factor of at least five (5) over the total design load.

(c) The platform shall:

(1) have:

(A) a slip-resistant floor surface;

(B) sufficient working space for a minimum of three (3) people; and

(C) anchor points or rails for safety harnesses that are designed and positioned so as not to impede the jumper operator's movements; and

(2) be fitted with a permanent enclosure to contain the jumper during preparation.

(d) The jumpers shall be prepared for jumping in a place separated from the jump point.

(e) There shall be a gate across the jump point equipped with a locking system to prevent accidental opening when there is not a jumper present on the jump point.

(f) The top end of all bungee cords on the platform shall be securely attached to the rigging bar or to the rigging before:

(1) each jumper is prepared for jumping; and

(2) jumping occurs.

(g) There shall be a plate or permanent marking on each platform indicating the following:

(1) The maximum capacity of the platform.

(2) The rated workload capacity or maximum intended load.

(h) Each jump operator and jump assistant on the platform permanent shall wear a safety harness or safety belt.

(i) The following shall wear safety belts:

(1) All employees of the owner.

(2) The jumper.

SECTION 8. The owner shall provide the following:

(1) A system for lowering the jumper to the landing pad, which shall be a mechanically powered system:

(A) not capable of free fall; and

(B) operated by the jump operator or the jump master.

(2) A second person to monitor the lowering of all jumpers who shall be capable of stopping the process if necessary to avoid injuries to the jumper.

(3) An alternative method for lowering the jumper in the event the main lowering system fails.

SECTION 9. (a) The platform mobile or cage used for lifting employees or jumpers shall be as follows:

(1) Designed by a professional engineer.

(2) Have a guardrail system sufficient to enclose all passengers during the hoisting or lowering of employees or jumpers.

(3) Have adequate overhead protection and headroom to guard against injuries to passengers.

(4) Have a plate or permanent marking indicating the following:

(A) The weight of the platform.

(B) The rated workload capacity or maximum intended load.

(5) Designed and maintained with an access gate that:

(A) opens to the inside of the platform; and

(B) has a safety lock or restraining device to prevent accidental opening.

(6) Free of any rough or exposed edges.

(7) Designed and attached to the hoisting cables of the crane or derrick in such a manner so as to ensure the load is evenly balanced during hoisting or lowering.

(b) All attachment assemblies related to the platform mobile or cage shall be designed and maintained to close and lock in such a manner that prevents accidental opening while the platform mobile or cage is attached to the hoisting cable.

- (c) The jump rigging shall:
- (1) not be attached directly to the platform mobile; and
 - (2) pass through or around the platform in such a way as to eliminate damage to the jump rigging.
- (d) The owner shall position the platform mobile at a constant height above the safety air bag for each jump.
- (e) Adjustments for the weight of each jumper shall be made by the jump operator's selection of bungee cord.
- (f) The platform mobile shall be as follows:
- (1) Operated with a minimum SWL reflecting a safety factor of not less than five (5), as determined by the maximum weight for which the platform is designed and constructed.
 - (2) Have a slip-resistant floor surface.
 - (3) Have sufficient working space for a minimum of three (3) people.
- (g) The jumper and all employees shall be completely enclosed on the platform mobile until the platform mobile reaches the jump point.
- (h) The jumper shall be secured by a safety belt or lifeline on the platform mobile until the jump point is reached.
- (i) The platform mobile shall have anchor points for safety harnesses or safety belts for all persons carried on the platform.
- (j) Each jump operator and jump assistant on the platform mobile shall wear a safety harness or safety belt.
- (k) The following shall wear safety belts:
- (1) All employees of the owner.
 - (2) The jumper.
- (l) The owner shall provide an alternative method for lowering the jumper from the platform in the event the main lowering system fails.
- (m) The platform and support straps shall be designed and operated to provide for maximum stability of the platform.
- (n) All shackles shall be moused.
- (o) The platform mobile or cage shall be designed and operated for use with a stabilizing bar or cable so that the platform mobile shall be attached in a fixed position to the crane or derrick to prevent swaying or rocking during a jump.

SECTION 10. The maximum wind speed during which a bungee jump facility may safely operate shall be:

- (1) determined by a professional engineer; and
- (2) stated in the operating manual.

No person shall operate a bungee jump facility when the wind speed exceeds the maximum wind speed stated in the operating manual.

SECTION 11. No person shall operate a bungee jump facility that utilizes a crane or derrick unless the following criteria are expressly met:

- (1) The owner must possess a current certificate to operate issued by the division for each crane or derrick used in a bungee jump facility.
- (2) The owner shall submit to the division a professional engineer's affidavit certifying the crane or derrick to be suitable for use in a bungee jump facility.
- (3) The crane or derrick shall be operated as follows:

(A) By a person who:

- (i) has a minimum of two (2) years experience in mixed type operating cranes; and
- (ii) holds a certificate of training issued by a crane inspection company recognized by the United States Department of Labor specializing in certification of crane operators and personnel handling.

The crane or derrick operator shall be recertified annually.

- (B) With a minimum SWL reflecting a safety factor of not less than ten (10).
- (4) The owner shall comply with the crane or derrick manufacturer's operating manual or instructions, except as modified by the professional engineer who certifies the crane or derrick as suitable for use in bungee jumping facilities.
- (5) The crane or derrick shall be equipped with the following:
- (A) An attached plate or permanent marking indicating:
 - (i) the rated load capacity;
 - (ii) the recommended operating speed;
 - (iii) special hazard warnings; and
 - (iv) special operating instructions for operation;of the crane or derrick.
 - (B) An operational anti-two block device that shall be as follows:
 - (i) Capable of eliminating all power to the crane or derrick hoisting cable.
 - (ii) Positioned a minimum of six (6) feet from the end of the crane or derrick boom or jib.
- (6) Wire rope used for hoisting or lowering the platform mobile or cage shall be rotation resistant. Wire rope shall be taken out of service when any of the following conditions exist:
- (A) In running ropes:
 - (i) six (6) randomly distributed broken wires in one (1) lay; or
 - (ii) three (3) broken wires in one (1) strand in one (1) lay.
 - (B) Wear of one-third ($\frac{1}{3}$) the original diameter of outside individual wires.
 - (C) Kinking, crushing, bird caging, or any other evidence of damage resulting in distortion of the rope structure.
- (7) The crane or derrick shall be equipped with the following:
- (A) Operational stabilizer bars or cables that stabilize the platform mobile or cage during a bungee jump to ensure a consistent jump space.
 - (B) A swing lock mechanism to limit the rotation of the crane or derrick to the operational limits of the bungee jump.
 - (C) A load moment indicator.
 - (D) An appropriate safety mechanism or device that prevents free fall capability.
- (8) The crane or derrick shall be set up and maintained in a level manner on firm footing. All outriggers shall be fully extended.
- (9) During the hoisting or lowering of employees or jumpers, the hoisting or lowering speed shall not exceed one hundred (100) feet per minute.
- (10) The owner shall do the following:
- (A) Provide for detailed daily inspections of the following:
 - (i) The crane or derrick.
 - (ii) The working platform.
 - (iii) The hoisting mechanism.
 - (B) Maintain detailed written inspection records that indicate the following:
 - (i) The date of inspection.
 - (ii) The name of the inspector.
 - (iii) A list of items inspected.
 - (iv) Deficiencies found during the inspection.
 - (v) Actions taken to correct the deficiencies found.
 - (vi) Certification that all deficiencies have been corrected before further use of the bungee jump facility.The daily inspections shall be conducted by the crane or derrick operator.
- (11) The crane or derrick shall be inspected every six (6) months by a person who has a minimum of two (2) years of experience in inspecting mixed type operating cranes and holds a certificate of registration issued by the United States Department of Labor. The owner shall maintain detailed written inspection records that indicate the following:
- (A) The date of inspection.
 - (B) The name of the inspector.
 - (C) A list of items inspected.
 - (D) Deficiencies found during the six (6) month inspection.
 - (E) Actions taken to correct the deficiencies found.
 - (F) Certification that all deficiencies have been corrected before further use of the bungee jump facility.
- (12) The owner shall provide training to the following:
- (A) The crane or derrick operator.
 - (B) The jump operator.

- (C) Ground personnel who assist jumpers in hooking up and unhooking.
- (D) Persons who dismantle or erect the crane.
- (E) Persons who have any rigging duties.

Training conducted must meet the minimum requirements set forth 685 IAC 1-2-4.

(13) The crane operator shall not leave the operator's position during any phase of:

- (A) hoisting or lowering the platform mobile or cage; or
- (B) jumping.

(14) The owner shall provide that a professional engineer determine in writing the following:

- (A) The maximum allowable wind velocities during which bungee jumping shall take place at the site.
- (B) The maximum wind velocity during which the crane or derrick can be operated in a bungee jump facility.

This information shall be maintained at the site and made available for review by the division within two (2) hours of a request by any employee of the division. The owner shall provide a method for constant monitoring of wind velocities at the jump site during any bungee jumping.

(15) The jump rigging shall be as follows:

- (A) Attached directly to the lifting hook of the crane or derrick.
- (B) Pass through or around the working platform in such a way as to eliminate damage to the jump rigging.

(16) The crane or derrick operator shall at all times maintain direct communication with the person directing the crane or derrick during the lifting and lowering of jumpers.

SECTION 12. No bungee jump facility in this state shall use any of the following:

- (1) Hot air balloons.
- (2) Blimps.
- (3) Similar type vessels.

SECTION 13. (a) The bungee cord shall be as follows:

- (1) Designed and tested to perform within prescribed limits of stretch and load as stated in this SECTION.
- (2) Made from natural or synthetic rubber or blends thereof that may be of various dimensions.

(b) The materials used in the construction of the bungee cord shall be such that the stretched length is consistent each time the same loading is applied.

(c) The following requirements apply to cord binding:

- (1) The binding shall hold the cord threads together in their designed positions.
- (2) The binding material shall have characteristics or specifications similar to those of the bungee cord material.
- (3) The cord bindings shall be intact.
- (4) Where bindings break during a day's operation, the cord shall be withdrawn from use until the bindings are replaced.

(d) The following requirements apply to bungee cords:

- (1) The cord shall stretch in the jump to at least two and five-tenths (2.5) times its unloaded length in its designed jumper weight range.
- (2) The unloaded length of the rigging system shall be less than one-half ($\frac{1}{2}$) the designed extended length.
- (3) The operating length of a bungee cord at its maximum designed dynamic load shall not exceed four (4) times its unloaded length.

(e) Testing of a new design of bungee cord shall be conducted as follows:

(1) Each owner desiring to utilize a new design of bungee cord shall submit to a professional engineer for testing one (1) bungee cord that has been constructed using their standard method of manufacture, including the bungee and all attachments, and two (2) three (3) foot lengths of bungee cord with end attachments to the same specifications. Specifications for each bungee cord shall also be submitted to the engineer and shall include the following:

- (A) The type of material used in the manufacture of the cord.
- (B) Thread specifications, including stress at three hundred percent (300%) elongation, tensile strength, and elongation at breaking point.
- (C) Dimensions and number of threads in a cross section of the cord.
- (D) Method of the following:
 - (i) Construction.

(ii) Binding.

(E) Jumper weight range for size of cord submitted for testing to produce the extension from two and five-tenths (2.5) times to a maximum of four (4) times the unloaded length of the cord.

(F) Operational range of dynamic loadings.

(2) The engineer shall do the following:

(A) Test the bungee cord and certify that the cord meets the cord specifications as submitted. The full length cord shall be subjected to the following:

(i) At least three (3) repeat tests for loading versus extension in order to establish consistency of extension within the cord range of loading.

(ii) A loading of five (5) times the maximum dynamic load for a period greater than five (5) minutes.

(iii) Checked for signs of thread breakage or other deterioration.

This will establish a minimum safety factor of five (5).

(B) The engineer shall carry out a cycle frequency test until either of the following occurs:

(i) The dynamic load at three hundred percent (300%) extension or four (4) times unloaded length reduces to less than the maximum dynamic load.

(ii) Evidence of more than ten percent (10%) of threads exhibiting wear or five percent (5%) of the threads broken of the total number over the length of cord.

(3) Upon completion of the testing required in this SECTION, the engineer shall destroy the full length cord.

(4) For purposes of this SECTION, a new design shall mean a change in any of the following:

(A) Bungee thread specifications that affect the performance of the bungee threads or cord.

(B) The end attachments.

(C) The manufacturing methods or equipment.

(5) Each end of the bungee cord shall have an end attachment to connect the cord to the rigging and the jumper. The end attachments shall be as follows:

(A) Tested by a professional engineer.

(B) Of sufficient size and shape to allow easy attachment to the jumper harness and to the rigging.

(C) Have a maximum breaking load of at least four thousand four hundred (4,400) pounds.

(f) The maximum allowable life of the cord shall not exceed:

(1) one-fifth ($1/5$) the tested number of extensions; or

(2) two hundred (200) jumps;

whichever is lower.

(g) A cord and its nonmetallic connectors shall be immediately withdrawn from use when any of the following occur:

(1) Exposure to daylight exceeds two hundred fifty (250) hours, except where a cord cover or sleeve fully protects all of the cord from visible and ultraviolet exposure.

(2) The bungee cord has been in existence for a period of six (6) months from the date of manufacture.

(3) The bungee cord material reaches:

(A) the manufacturer's recommended life span; or

(B) two hundred (200) days;

whichever is less.

(4) There is evidence of threads exhibiting wear, such as any of the following:

(A) Bunched threads.

(B) Uneven tension between threads.

(C) Thread bands.

(5) There are broken threads.

(6) As the bungee cord stretches over the course of its jump life, the dynamic load required to extend the bungee to four (4) times its unloaded length will reduce. When this dynamic load reduces to less than the maximum designed dynamic load, the cord shall be discarded.

(7) The cord comes into contact with any of the following:

(A) Solvents.

(B) Corrosive substances.

(C) Abrasive substances.

(8) Any incident occurs that could result immediately or in due course in substantial substandard performance of the bungee cord or its attachments.

When any discolorations or other flaws are found or the date of manufacture of the bungee cord or each item of material that is a component part of the bungee cord cannot be documented on the site by reference to the identification tag required by SECTION 21 [of this document], the bungee cord shall be destroyed.

(h) A bungee cord withdrawn from use shall be destroyed in the presence of a division inspector. The bungee cord is considered to be destroyed when it is cut into lengths of less than three (3) feet. When a bungee cord is ready for destruction, the owner shall request, in writing, a division inspector to witness the destruction.

(i) Before starting and during the day's operations, the jump operator shall perform the following:

(1) A visual inspection of the entire length and circumference of the bungee cord for signs of wear. The inspection shall be:

(A) repeated at least four (4) times during a full day's operation; and

(B) recorded in the daily log.

(2) An inspection of the bungee cord if the extended dynamic or static length changes during jumping.

The bungee cord shall be immediately replaced in the event unexpected changes in the cord's extended performance occur.

(j) The owner shall ensure that a bumper is used to cover the end of the bungee cord and all connecting straps and devices, where attached to the jumper. The bumper shall be as follows:

(1) At least:

(A) six (6) inches in diameter; and

(B) five (5) feet in length.

(2) Fastened in such a manner so as to prevent its slipping up and down the bungee cord.

(k) All bungee cords used at a bungee jump facility shall be designed as to their thickness and length for the height of the jump so as to prevent the looping of the cord around any part of the jumper's body during a jump. The owner shall submit to the division a professional engineer's report certifying the bungee cords to be used, in relation to the height of the jump, will not loop around any part of the jumper's body during a jump.

SECTION 14. (a) No bungee jump shall be operated unless the owner provides and requires each jumper to use a jumper harness that meets the following requirements:

(1) A jumper harness shall be as follows:

(A) Full body, designed either as a full body harness or a sit harness with shoulder straps.

(B) Certified by a professional engineer as being in accordance with the requirements of one (1) or more nationally recognized standards developed for the use of jumper harnesses.

(C) Available to fit the range of person sizes accepted for jumping.

(D) Properly adjusted and fitted on each jumper.

(E) Certified by a professional engineer as appropriate for use in bungee jumping.

(F) Have a safety factor of not less than five (5).

(2) A professional engineer shall certify that the method of attachment and location of attachment for the jumper harness is the safest available.

(b) The use of an ankle strapping or ankle harness in bungee jump facilities is hereby prohibited.

SECTION 15. All ropes for holding or lowering the jumper shall be as follows:

(1) Have a breaking load of at least four thousand nine hundred (4,900) pounds.

(2) Certified by a professional engineer as being in accordance with the requirements of one (1) or more nationally recognized standards developed for the life safety ropes.

SECTION 16. (a) Karabiners shall be as follows:

(1) Of the steel screw gate type with a breaking load of at least four thousand four hundred (4,400) pounds.

(2) Certified by a professional engineer as being in accordance with the requirements of one (1) or more nationally recognized standards developed for the use of:

(A) life safety ropes;

(B) safety belts;

(C) harnesses; or

(D) lanyards.

(b) Pulleys and shackles shall be as follows:

- (1) Have a minimum breaking load of at least four thousand four hundred (4,400) pounds.**
- (2) Certified by a professional engineer as being in accordance with the requirements of one (1) or more nationally recognized standards developed for the use of:**
 - (A) life safety ropes;**
 - (B) safety belts;**
 - (C) harnesses; or**
 - (D) lanyards.**

(c) All pulleys shall be compatible with the rope size.

(d) Webbing shall be of flat tubular mountaineering webbing or equivalent with a minimum breaking load of at least four thousand four hundred (4,400) pounds.

(e) Tape knots shall be used on all webbing, and the ends shall be either:

- (1) stitched down; or**
- (2) greater than twice the width of the tape.**

SECTION 17. (a) Lifelines shall be as follows:

- (1) Attached to all bungee personnel while on the working platform.**
- (2) Have a minimum breaking load of at least four thousand nine hundred (4,900) pounds.**

(b) In a bungee jump facility that utilizes a crane, safety belts shall be worn by the jumper while on the working platform. In a bungee jump facility that utilizes a tower, the jumper shall be attached to a safety belt or bungee cord before reaching the jump point.

(c) A safety harness and lifeline attached to the platform shall be worn by all bungee personnel while on the working platform. The harness shall be either a:

- (1) sit harness; or**
- (2) full body harness.**

SECTION 18. The jump operator shall ensure the following daily:

- (1) The bungee jump facility has a current certificate to operate issued by the division.**
- (2) The hoist wire rope has sufficient length for the working heights. The crane or derrick operator shall run out the rope, and the rope shall be given a visual inspection.**
- (3) All shackles and pins are moused.**
- (4) All outriggers are fully extended.**
- (5) There are established lines of communication between the following:**
 - (A) The jump cage and the crane or derrick operator.**
 - (B) The crane or derrick operator and the ground team.**
- (6) The hand signals required for visual communication between the person directing the crane or derrick and the crane or derrick operator are known by all parties.**
- (7) All protective equipment is inspected.**

SECTION 19. (a) The owner shall ensure the following testing and inspections are performed:

- (1) All jump rigging, harnesses, lowering or braking systems, and safety gear shall be as follows:**
 - (A) Regularly inspected and tested as set out in the operating manual and in this document. The owner shall maintain detailed written inspection records that indicate the following:**
 - (i) The date of inspection.**
 - (ii) The name of the inspector.**
 - (iii) A list of items inspected.**
 - (iv) Deficiencies found during the inspection.**
 - (v) Actions taken to correct the deficiencies found.**
 - (vi) Certification that all deficiencies have been corrected before further use of the bungee jump facility.**
 - (B) Of a load rating at least equal to the standards stated in this document.**

(2) Before commencing each day's operations, the crane or derrick and platform mobile shall be raised and lowered with appropriate test weights to ensure proper operation.

(b) The owner shall replace any:

- (1) rigging or hardware; and**
- (2) ropes;**

that have become damaged.

(c) All ropes, webbing, and bindings shall be inspected visually and by feel for signs of wear, fraying, or corrosive or damaging substances. Criteria for the following shall be included in the operating manual:

- (1) Planned inspection.**
- (2) The periodic replacement of the following:**
 - (A) Ropes.**
 - (B) Webbing.**
 - (C) Harnesses.**
 - (D) Hardware.**

SECTION 20. (a) At the beginning of each day's operation, replacements of at least the following shall be available on site:

- (1) Bungee cord or cords.**
- (2) All ropes.**
- (3) Rigging hardware.**
- (4) Body safety harness for jumpers and staff.**
- (5) Lifelines and connecting devices.**

(b) Any item of equipment, rigging, or personal protective equipment found to be substandard shall be replaced immediately.

(c) Jumping shall cease immediately when a substandard item cannot be replaced.

SECTION 21. (a) Each item of rigging, bungee, and safety equipment shall have its own unique permanent identification number.

(b) An identification tag shall be sewn, woven, or permanently attached to each bungee cord in such manner as will not interfere with the safety or performance of the bungee cord. The tag shall contain the following information:

- (1) The manufacture dates of the following:**
 - (A) The bungee cord.**
 - (B) Each item of material that is a component part of the bungee cord.**
- (2) The weight class for which the bungee cord is designed as required by this document.**

(c) The identification of each item shall be as follows:

- (1) Not harm the material of the item.**
- (2) Clearly visible to the staff members during daily operations.**
- (3) Recorded in the item's log sheet.**

(d) The owner shall provide in the operating manual the color codes for the bungee cords being used at the bungee site that correspond to different weight classes. There shall be a minimum of four (4) weight classes or progressions at each bungee site.

SECTION 22. The owner shall comply with the following as to the landing area, recovery area, and jump space:

- (1) The areas shall be free of the following:**
 - (A) Spectators at all times.**
 - (B) Any equipment or staff:**
 - (i) when a jumper is being prepared on the jump point; and**
 - (ii) until the bungee cord is at its static extended state.**
- (2) The off-loading landing pad and air bag shall be positioned before jumper preparation commences on the platform.**

- (3) The landing pad shall be a clean, smooth, padded surface.**
- (4) The jumper shall be allowed to recover before being moved from the landing pad.**
- (5) The owner shall provide a recovery area for the jumper to sit and recover adjacent to the landing area.**

SECTION 23. (a) The owner shall do the following:

- (1) Maintain a fence designed and constructed to restrict people, animals, and objects from entering the following:**
 - (A) The crane or tower area.**
 - (B) The preparation area.**
 - (C) The surface area of the jump space.**
 - (D) All areas specified by the engineer who certifies the bungee operation.**
- (2) Ensure that all areas in which persons may be endangered shall be:**
 - (A) fenced;**
 - (B) barricaded; or**
 - (C) otherwise effectively guarded against contact.**
- (3) Comply with all state and local laws with regards to fences or barricades.**

(b) Before commencing bungee jump operations, the owner shall submit to the department a professional engineer report certifying that the design and construction of the fences or barricades:

- (1) meet the requirements of the rules of the fire prevention and building safety commission; and**
- (2) are certified by the engineer to be suitable for a bungee jump facility operation.**

SECTION 24. The owner shall provide storage to protect equipment from physical, chemical, and ultraviolet ray damage. The storage shall be as follows:

- (1) Provided for current, replacement, and emergency equipment.**
- (2) Organized for easy and orderly access.**
- (3) Secured against unauthorized entry.**

SECTION 25. (a) The owner shall provide and maintain at each bungee site, at a minimum, the following:

- (1) A public address system.**
- (2) A radio communication link or closed telephone circuit in the following situations:**
 - (A) On crane sites, a hookup between the:**
 - (i) crane operator; and**
 - (ii) platform.**
 - (B) On permanent platform sites, a hookup between the:**
 - (i) platform; and**
 - (ii) landing and recovery areas.**

(b) Bungee jump personnel shall be easily identified by other staff and the public. A uniform or similar clothing shall be worn by bungee staff.

(c) Instructions to jumpers and the public shall be put in positive terms to avoid misinterpretation and mistakes.

SECTION 26. The owner shall provide and maintain a telephone communication link to 911 or similar emergency service within two hundred (200) feet of the bungee operation.

SECTION 27. The owner shall provide for and maintain the following for safety and loss control management:

- (1) At least one (1) jump master shall be as follows:**
 - (A) Designated the safety, health, and loss control coordinator.**
 - (B) Certified in first aid by the American Red Cross or an equivalent certification authority. The first aid certification shall include cardiopulmonary resuscitation (CPR).**
- (2) A comprehensive emergency plan shall be:**
 - (A) developed;**
 - (B) practiced;**
 - (C) maintained; and**
 - (D) posted;**

at each bungee jump facility.

(3) The jump master shall inspect and review daily the site, equipment, and procedures as outlined in the emergency plan.

(4) The reporting and investigation of injuries, damages, and near-miss events shall be analyzed and reviewed by management on a regular basis. The owner shall make changes to:

- (A) procedures;
- (B) equipment;
- (C) rigging; or
- (D) structures;

as needed to reduce the likelihood of any incidents recurring.

(5) The emergency plan shall be included in the operating manual.

(6) Training shall be provided to all bungee staff relative to emergency procedures. A record of training shall be kept.

SECTION 28. (a) The owner shall maintain at least the following staff at each bungee jump facility:

(1) A jump master. To be qualified as a jump master, a person shall be at least eighteen (18) years of age and shall have had a minimum of two hundred fifty (250) hours and one thousand two hundred fifty (1,250) jumps of incident-free experience as a jump assistant under the supervision of a qualified jump master at a bungee jump facility. A jump master shall be responsible for the following:

(A) At least one (1) jump master at each bungee jump facility shall be as follows:

(i) Designated as having complete control over the operation and accountable for the operation and control of the bungee jump facility.

(ii) Have a thorough knowledge of the bungee jump facility and its:

- (AA) equipment;
- (BB) operating manual;
- (CC) procedures; and
- (DD) staff.

(B) The jump master shall do the following:

(i) Select the bungee cord and adjust the rigging appropriately for each jumper.

(ii) Take the jumper through the final stages to the jump takeoff.

(iii) Be present at the jump point during each jump.

(C) For crane operations, at least two (2) staff members, one (1) of whom must be a jump master, shall escort the jumper from the preparation area to the jump point. However, when all connections are made while on the ground and checked by two (2) staff members, one (1) of whom is a jump master, only one (1) staff member must escort the jumper to the jump point.

(D) The training of other bungee staff. All training shall be conducted by or under the direct supervision of a jump master.

(E) The jump master shall do the following:

(i) Ensure that the number of jumps being conducted at a site does not prohibit the bungee staff from carrying out all procedures and duties for each job as set out in the manual.

(ii) Directly supervise all staff who are in training.

(2) A jump assistant. The owner or jump master shall designate a jump assistant at each bungee jump facility with at least the following duties:

(A) Assisting the jump master to prepare the jumper.

(B) Attaching the jumper to the harness.

(C) Assisting in attaching the jumper to rigging.

(D) Carrying out check procedures.

(E) Operating the lowering system.

(F) In crane operations, the jump assistant may assist in landing or recovery procedures.

(G) Assisting in controlling the public.

(3) A landing or recovery operator. The owner or jump master shall designate a landing or recovery operator at each landing area with at least the following duties:

(A) Assisting the jumper to the following:

(i) The landing pad.

(ii) The recovery area.

(B) Overseeing the recovery of jumpers.

(C) Assisting in controlling the public.

(4) A registration clerk. The owner or jump master shall designate a registration clerk at each bungee site with at least the following duties:

- (A) Registering the jumper.**
- (B) Providing all notices and warnings to potential jumpers as required under this document.**
- (C) Weighing and marking of the weight on the jumper.**
- (D) Controlling movement of jumpers to jump platform.**
- (E) Assisting in controlling the public.**
- (F) Handling the payment process.**

(b) The owner shall provide and maintain an operating team for each bungee jump facility operation. Each operating team shall have a minimum of four (4) staff members, one (1) of whom must be a jump master.

SECTION 29. (a) If an accident involving a bungee jump results in death or serious injury, the owner shall immediately do the following:

- (1) Report the accident to the division.**
- (2) Close the bungee jump facility until authorization to reopen the bungee jump facility is received from the division.**

(b) All accidents relating to a bungee jump operation shall be reported in writing to the division within twenty-four (24) hours of the accident.

(c) Owners shall record all injuries, damage, or near-miss events in a daily log.

SECTION 30. The owner is responsible for ensuring that staff shall take regular breaks to ensure that fatigue does not downgrade the staff's ability to operate an incident-free operation. If continuous operation is planned, then backup staff shall be available to allow adequate breaks to take place.

SECTION 31. The owner shall comply with the following jumper restrictions:

(1) The minimum age for jumping shall be twelve (12) years of age. The owner shall secure the consent of a parent or guardian for any jumper who is under eighteen (18) years of age. The parent or guardian shall:

- (A) be at least eighteen (18) years of age; and**
- (B) sign an authorization stating he or she is:
 - (i) the jumper's parent or guardian; and**
 - (ii) consenting to the bungee jumping.****

In addition, the parent or guardian shall be present at the bungee jump facility during the bungee jumping. The authorization shall be executed at the bungee jump facility in the presence of bungee jump facility staff. The authorization shall be permanently retained by the owner with the daily log.

(2) The owner shall disclose to each jumper all medical conditions that may be adversely affected by jumping, including, at a minimum, the following medical conditions:

- (A) Pregnancy.**
- (B) High blood pressure.**
- (C) Heart conditions.**
- (D) Neurological disorders.**
- (E) Epilepsy.**

(3) Any jumper who, in the opinion of the bungee staff, represents a danger to himself or herself or others shall not be allowed:

- (A) onto the platform; or**
- (B) to jump.**

(4) Jumpers in an intoxicated state shall not be allowed to jump.

SECTION 32. (a) The owner shall provide for signs, erected and containing the following information, at each bungee jump facility location:

(1) A warning that:

- (A) bungee jumping may:
 - (i) be a dangerous activity; and**
 - (ii) result in serious injury or death to the jumper; and****

(B) injuries and death have occurred relating to bungee jumping activities.

(2) A statement in bold capital letters that the department does not:

(A) endorse this activity; and

(B) guarantee or warrant the safety of bungee jumping.

(3) The medical, weight, and age restrictions for jumpers.

(b) The owner shall maintain and position signs with the information required in subsection (a) at the:

(1) bungee jump entrance; and

(2) preparation area.

(c) Separate signs shall be erected that identify the color codes of the bungee cords for the corresponding weight classes, in accordance with the color code set forth in the operating manual. The owner shall maintain and position a sign reflecting this information at each weighing area.

(d) All signs required under this SECTION shall be in bold type and conspicuous lettering of sufficient dimensions to accommodate the language required in this SECTION except that the word "WARNING" shall be in lettering at least two (2) inches in height.

SECTION 33. (a) The owner shall provide and maintain an operating manual at each bungee jump facility site that describes the system of operation to be used and addresses, but is not limited to, the following elements:

(1) A site plan showing the following:

(A) A plan view of the site with all components in place including the following:

(i) Fencing.

(ii) Site furniture and equipment.

(iii) The jump zone.

(iv) Safety space.

(v) The jump area.

(vi) The jump direction defined.

(B) A profile of the site defining the following:

(i) The jump platform and its supporting structure.

(ii) The jump area.

(iii) The jump zone.

(iv) The safety space.

(2) A complete description of the following:

(A) All components in the rigging system, which shall include the manufacturers' specifications or a laboratory test certificate of each component.

(B) All bungee staff, jumper, and passenger safety equipment with instructions for proper usage.

(C) All rescue equipment.

(3) A complete job description of all personnel employed on the site with the following:

(A) Minimum qualifications of each person.

(B) Complete detail of work periods required.

(4) A complete description of the following:

(A) Emergency procedures to be taken in all possible scenarios that may occur.

(B) Standard operating procedures of every person employed in the processing of the bungee jumper.

(C) The procedure for reporting to authorities incidents resulting in injury or death.

(D) The reporting procedure for any incidents that do not result in injury but that were not in accordance with normal operational procedures.

(E) Equipment inspection procedures and the recording of those inspections.

(F) The method of recording verified qualifications of jump masters employed on the site.

(G) Staff selection procedures.

(H) The criteria for the periodic replacement of the following:

(i) Rigging.

(ii) Hardware.

(iii) Bungee cords.

(iv) Harnesses.

(v) Lifelines.

(b) The owner and each member of the operating staff shall have a thorough knowledge of the operating manual.

(c) Noncompliance with any of the criteria or procedures contained in the operating manual is cause for the closure of any affected bungee jump facility.

(d) A copy of the operating manual shall be maintained at all times on the bungee jump facility site during operating hours.

SECTION 34. (a) The owner shall provide and maintain a written checklist for the daily operating procedures, which shall include at least the following:

(1) Setting up the site equipment and public amenities.

(2) Inspecting and testing of the following:

(A) All equipment before beginning operations.

(B) Protective equipment including the following:

(i) Gloves.

(ii) Harnesses.

(iii) Lifelines.

(C) The communication system for proper operation.

(D) The jump equipment and rigging.

(3) Review of the following:

(A) Jump procedures with all bungee staff.

(B) All emergency procedures with all bungee staff.

(4) Conducting test jumps with appropriate weights on all bungee cords to be used that day.

(5) Designating the jump master who is in charge of the entire operation that day.

(b) The procedures outlined in subsection (a) shall be performed each day before beginning bungee jumping operations.

(c) Failure to complete each daily operating procedure outlined in this SECTION shall constitute cause for the closure of any affected bungee jump facility.

SECTION 35. (a) The owner shall provide and maintain written jump procedures, which shall include at least the following procedures:

(1) Exclusion of all unauthorized persons from the operating areas.

(2) Registration of jumpers to include the following:

(A) Name.

(B) Age.

(C) Two (2) separate weighings on two (2) separate scales by two (2) different staff members on each jumper.

(D) Jumper briefing.

(E) Removal of loose objects from the jumper.

(F) Preparation of the jumper, which shall include the following:

(i) Harness or binding attachment.

(ii) Instructions to the jumper.

(iii) Selection and adjustment of the bungee cord.

(iv) Connection of the jumper to the rigging.

(v) Recheck of all connections and harness attachments.

(vi) Final inspection by the jump master.

(vii) Final instructions to the jumper.

(viii) Countdown to jump.

(ix) Observation of jump.

(G) Landing and recovery of jumper.

(H) Off-loading of jumper.

(I) Return of jumper to the public area.

(J) Retrieval of the bungee to the platform.

(b) There shall be a written prejump checklist for each jumper for the procedures contained in subsection (a). The prejump checklist shall contain the jumper's name, and the jump master shall sign and date the checklist certifying all procedures were performed. The prejump checklist shall be permanently maintained as part of the daily log.

(c) The procedures outlined in this SECTION shall be performed for each bungee jump.

(d) Failure to complete each procedure outlined in this SECTION shall constitute cause for the closure of any affected bungee jump facility.

SECTION 36. (a) The owner shall provide and maintain a written checklist for the close down procedures, which shall include at least the following:

- (1) Equipment cleaning and inspection.
- (2) Completion of written records as required under this document.
- (3) The necessary daily maintenance of equipment, structures, and facilities.
- (4) The storage of equipment.
- (5) The disposal of rubbish.
- (6) Security checks and lockup.
- (7) Debriefing of staff on critical incidents and events occurring that day.
- (8) Equipment, rigging, and bungee changes required before the next day operations start.
- (9) Maintenance work not completed but required before the next day operations.

(b) The procedures outlined in this SECTION shall be performed for each bungee jump facility.

(c) Failure to complete each procedure outlined in this SECTION shall constitute cause for the closure of any affected bungee jump facility.

SECTION 37. (a) The owner shall maintain a permanent log of the following daily activities for each bungee site:

- (1) Confirmation that daily operating procedures were performed and compilation of the corresponding checklist.
- (2) Compilation of the checklists on jump procedures.
- (3) Confirmation that the closedown procedures were performed and compilation of the corresponding checklist.
- (4) The number of jumps made on each bungee cord. This shall be done by referencing the permanent identification number of each cord used.
- (5) Compilation of the information required in SECTION 13(f) and 13(g) of this document. The log shall contain notation as to whether each bungee cord should or should not be withdrawn from use because of each factor listed in SECTION 13(f) and 13(g) *[of this document]*.

(b) The daily log shall be signed by the jump master who is in charge of the daily operation.

(c) The owner shall maintain a separate bungee cord log, which shall contain for each bungee cord in the possession of the owner the following information:

- (1) The expiration date of the life of:
 - (A) the cord; or
 - (B) its materials;whichever is shorter.
- (2) The lot number and date of manufacture of all materials that are a component of the bungee cord.
- (3) The date of manufacture of the bungee cord.

(d) The owner shall also retain for the useful life of each cord and for a period of one (1) year thereafter all:

- (1) invoices;
- (2) bills of sale;
- (3) checks for payment; and
- (4) other documents;

that indicate the purchase, sale, testing, and manufacturing of any bungee cord or any component materials used to manufacture a bungee cord.

(e) Owners shall obtain from the manufacturer of any materials to be used for the manufacture of bungee cords the lot number and date of manufacture of the materials in writing. The documentation shall be maintained by the owner for:

- (1) the useful life of each cord; and
- (2) a period of one (1) year thereafter.

(f) Failure to comply with this SECTION shall constitute cause for the closure of any affected bungee jump facility.

SECTION 38. (a) The owner shall provide and maintain emergency procedures for each bungee jump facility site that meet at least the following:

- (1) Each site shall have an emergency plan.
- (2) The following shall be held on site:

- (A) A medium first aid kit.
- (B) A stretcher.
- (C) A back board.
- (D) Blankets.

(3) All jump masters shall:

- (A) have current first aid certificates; and
- (B) complete an annual refresher course.

(b) The operating manual shall specify the rescue training and qualifications required for all staff on the site.

(c) Adequate lighting shall be provided at all jump sites that operate after sunset. The lighting system shall illuminate the:

- (1) jump point;
- (2) jump space; and
- (3) landing area.

There shall be an emergency lighting system having its own power source.

SECTION 39. (a) Any bungee jump operation that is not in compliance with this document or 685 IAC is subject to closure by the department. In the event a bungee jump operation is closed by the department, the bungee jump shall remain closed until written authorization to reopen is issued by the department.

(b) The owner shall not use the name of or a reference to the department for the purpose of promoting a bungee jump operation in any of the following:

- (1) Advertisements.
- (2) Brochures.
- (3) Commercials.
- (4) TV or radio shows.
- (5) Newspapers.
- (6) Any other public manner by the owner.

SECTION 40. Before operating a bungee jump facility in this state, the owner shall provide to the department an affidavit or affidavits executed by a professional engineer or professional engineers containing the following information:

(1) The engineer making affidavit:

- (A) certifies that he or she holds a valid license as a professional engineer issued by the state of Indiana; and
- (B) shall sign, date, and affix their seal to each affidavit.

(2) The engineer certifies the following:

- (A) That the design of the bungee jump facility has been completed by them, or under their responsible control.
- (B) That the design is in accordance with the following:

- (i) 685 IAC 1.
- (ii) The Indiana Building Code.
- (iii) Other local, state, and federal rules and regulations.

(C) The crane or structure for use in bungee jump operations.

(D) All safety equipment for use in bungee jump operations, including the following:

- (i) Harnesses.
- (ii) Connecting straps.

- (iii) Safety lines.**
- (iv) Attachments.**
- (v) Karabiners.**

(E) That the bungee cords to be used in the bungee jump operation, as well as the manufacturing process for the bungee cords, including quality control methods, have been personally examined and reviewed.

(F) That the engineer found all types of bungee cords and the manufacturing process to conform in all applicable respects to nationally recognized standards.

(G) That the bungee cords tested and certified under this SECTION were manufactured by the same manufacturing process as those cords that are to be used in the bungee jump facility operations.

(H) The safety air bag for use in bungee jump facility operations.

(I) The rigging system for use in bungee jump facility operations.

(J) The:

- (i) jump space;**
- (ii) jump zone; and**
- (iii) jump height;**

are appropriate for the bungee jump facility operation.

(3) The engineer has reviewed the:

- (A) daily operating procedures;**
- (B) jump procedures; and**
- (C) closedown procedures;**

and certifies them as appropriate for the bungee jump facility operation.

(4) The engineer certifies that the bungee jump facility operation:

- (A) has been inspected;**
- (B) is in compliance with this document; and**
- (C) has undergone some form of nondestructive testing for metal fatigue:
 - (i) recognized by the American Society for Non-Destructive Testing; and**
 - (ii) as recommended by the engineer responsible for the design and maintenance of the bungee jump facility.****
- (D) That he or she has and maintains a professional liability insurance policy as set forth in SECTION 4 of this document.**

SECTION 41. (a) The practice of bungee catapulting or reverse bungee jumping is hereby prohibited in this state.

(b) Only one (1) jumper shall jump from any bungee jump facility at any one (1) time.

SECTION 42. SECTIONS 1 through 41 of this document take effect May 1, 2006.

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