**Section 6000.250 Wire Rope**

a) Wire rope used on amusement rides and amusement attractions shall be thoroughly examined periodically per amusement ride or amusement attraction manufacturer's specifications.

b) Wire rope found damaged shall be replaced with new wire rope conforming to specifications set forth by the amusement ride or amusement attraction manufacturer. Any of the following conditions shall be cause for wire rope replacement:

1) In running ropes, 6 randomly distributed broken wires in one rope lay, or three broken wires in one strand in one rope lay. A rope lay being the length along the rope required for one strand to make one revolution around the rope;

2) In pendants or standing ropes (ropes bearing the entire load or subjected to constant pressure or shock loading), evidence of more than one broken wire in one rope lay;

3) Abrasion, scrubbing or peening causing loss of more than ⅓ of the original diameter of the outside wires;

4) Corrosion which results in surface pitting on the wires;

5) Kinking, crushing, birdcaging, or other damage resulting in distortion of the rope structure causing some members of the rope structure carrying more load than others;

6) Heat damage;

7) Reduction from the normal diameter of the wire rope of more than 3/64 inch for diameters up to and including ¾ inch; 1/16 inch for diameters over ¾ inch up to and including 11/18 inches; 3/32 inch for diameters over 11/18 inches up to 1½ inches;

8) Any rust that cannot be removed by wiping the wire rope with an oily rag or development of broken wires in the vicinity of attachments. If this condition is localized in an operating rope, the section in question may be eliminated by making a new attachment; and

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

c) When using U-bolt clips, the U section of each clip must contact the dead end or short end of the wire rope.

d) Mechanical devices, such as rollers, drums or sheaves, shall not have any chipping, unequal wear, surface roughness or deterioration in any area that contacts the wire rope.

(Source: Amended at 44 Ill. Reg. 19907, effective December 8, 2020)