Federal Railroad Administration, DOT

§ 215.105 Suspension System

§ 215.103 Defective wheel.
A railroad may not place or continue in service a car, if—
(a) A wheel flange on the car is worn to a thickness of 7/8 of an inch, or less, at a point ¾ of an inch above the tread of the wheel;
(b) The height of a wheel flange on the car, from the tread to the top of the flange, is 1 1/2 inches, or more;
(c) The thickness of a rim of a wheel on the car is 11/16 of an inch, or less;
(d) A wheel rim, flange, plate, or hub area on the car has a crack or break;
(e) A wheel on the car has a chip or gouge in the flange that is 1 ½ inches in length and ½ inch in width, or more;
(f) A wheel on the car has—
(1) A slid flat or shelled spot that is more than 2 ½ inches in length; or
(2) Two adjoining flat or shelled spots each of which is more than two inches in length;
(g) A wheel on the car shows evidence of being loose such as oil seepage on the back hub or back plate;
(h) A wheel on the car shows signs of having been overheated as evidenced by a reddish brown discoloration, to a substantially equal extent on both the front and the back face of the rim, that extends on either face more than four inches into the plate area measured from the inner edge of the front or back face of the rim; or,
(i) A wheel on the car has been welded unless the car is being moved for repair in accordance with §215.9 of this part.

§ 215.105 Defective axle.
A railroad may not place or continue in service a car, if—
(a) An axle on the car has a crack or is broken;
(b) An axle on the car has a gouge in the surface that is—
(1) Between the wheel seats; and
(2) More than one-eighth inch in depth;
(c) An axle on the car, used in conjunction with a plain bearing, has an end collar that is broken or cracked;
(d) A journal on the car shows evidence of overheating, as evidenced by a