

§213.121

specified in §213.55. These normally occur when rail temperatures are relatively high and are caused by high longitudinal compressive forces.

(3) *Continuous Welded Rail (CWR)* means rail that has been welded together into lengths exceeding 400 feet.

(4) *Desired Rail Installation Temperature Range* means the rail temperature range, within a specific geographical area, at which forces in CWR should not cause a buckling incident in extreme heat, or a pull-apart during extreme cold weather.

(5) *Disturbed Track* means the disturbance of the roadbed or ballast section, as a result of track maintenance or any other event, which reduces the lateral or longitudinal resistance of the track, or both.

(6) *Mechanical Stabilization* means a type of procedure used to restore track resistance to disturbed track following certain maintenance operations. This procedure may incorporate dynamic track stabilizers or ballast consolidators, which are units of work equipment that are used as a substitute for the stabilization action provided by the passage of tonnage trains.

(7) *Rail Anchors* means those devices which are attached to the rail and bear against the side of the crosstie to control longitudinal rail movement. Certain types of rail fasteners also act as rail anchors and control longitudinal rail movement by exerting a downward clamping force on the upper surface of the rail base.

(8) *Rail Temperature* means the temperature of the rail, measured with a rail thermometer.

(9) *Tight/Kinky Rail* means CWR which exhibits minute alinement irregularities which indicate that the rail is in a considerable amount of compression.

(10) *Train-induced Forces* means the vertical, longitudinal, and lateral dynamic forces which are generated during train movement and which can contribute to the buckling potential.

(11) *Track Lateral Resistance* means the resistance provided by the rail/crosstie structure against lateral displacement.

(12) *Track Longitudinal Resistance* means the resistance provided by the rail anchors/rail fasteners and the bal-

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last section to the rail/crosstie structure against longitudinal displacement.

[63 FR 34029, June 22, 1998; 63 FR 46102, Aug. 28, 1998; 63 FR 49382, Sept. 15, 1998; 70 FR 66297, Nov. 2, 2005]

§213.121 Rail joints.

(a) Each rail joint, insulated joint, and compromise joint shall be of a structurally sound design and dimensions for the rail on which it is applied.

(b) If a joint bar on Classes 3 through 5 track is cracked, broken, or because of wear allows excessive vertical movement of either rail when all bolts are tight, it shall be replaced.

(c) If a joint bar is cracked or broken between the middle two bolt holes it shall be replaced.

(d) In the case of conventional jointed track, each rail shall be bolted with at least two bolts at each joint in Classes 2 through 5 track, and with at least one bolt in Class 1 track.

(e) In the case of continuous welded rail track, each rail shall be bolted with at least two bolts at each joint.

(f) Each joint bar shall be held in position by track bolts tightened to allow the joint bar to firmly support the abutting rail ends and to allow longitudinal movement of the rail in the joint to accommodate expansion and contraction due to temperature variations. When no-slip, joint-to-rail contact exists by design, the requirements of this paragraph do not apply. Those locations when over 400 feet in length, are considered to be continuous welded rail track and shall meet all the requirements for continuous welded rail track prescribed in this part.

(g) No rail shall have a bolt hole which is torch cut or burned in Classes 2 through 5 track. For Class 2 track, this paragraph (g) is applicable September 21, 1999.

(h) No joint bar shall be reconfigured by torch cutting in Classes 3 through 5 track.

§213.122 Torch cut rail.

(a) Except as a temporary repair in emergency situations no rail having a torch cut end shall be used in Classes 3 through 5 track. When a rail end is torch cut in emergency situations, train speed over that rail end shall not