

traffic and high speed trains. Trains shall not operate at Class 7 speeds over any track segment having highway-rail grade crossings unless:

(1) An FRA-approved warning/barrier system exists on that track segment; and

(2) All elements of that warning/barrier system are functioning.

**§ 213.349 Rail end mismatch.**

Any mismatch of rails at joints may not be more than that prescribed by the following table—

Class of track	Any mismatch of rails at joints may not be more than the following—	
	On the tread of the rail ends (inch)	On the gage side of the rail ends (inch)
Class 6, 7, 8 and 9 .....	1/8	1/8

**§ 213.351 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 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) Each rail shall be bolted with at least two bolts at each joint.

(e) 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 section do not apply. Those locations, when over 400 feet long, are considered to be continuous welded rail track and shall meet all the requirements for continuous welded rail track prescribed in this subpart.

(f) No rail shall have a bolt hole which is torch cut or burned.

(g) No joint bar shall be reconfigured by torch cutting.

**§ 213.352 Torch cut rail.**

(a) Except as a temporary repair in emergency situations no rail having a torch cut end shall be used. When a rail end with a torch cut is used in emergency situations, train speed over that rail shall not exceed the maximum allowable for Class 2 track. All torch cut

rail ends in Class 6 shall be removed within six months of September 21, 1998.

(b) Following the expiration of the time limits specified in paragraph (a) of this section, any torch cut rail end not removed shall be removed within 30 days of discovery. Train speed over that rail shall not exceed the maximum allowable for Class 2 track until removed.

**§ 213.353 Turnouts, crossovers, and lift rail assemblies or other transition devices on moveable bridges.**

(a) In turnouts and track crossings, the fastenings must be intact and maintained so as to keep the components securely in place. Also, each switch, frog, and guard rail shall be kept free of obstructions that may interfere with the passage of wheels. Use of rigid rail crossings at grade is limited per § 213.347.

(b) Track shall be equipped with rail anchoring through and on each side of track crossings and turnouts, to restrain rail movement affecting the position of switch points and frogs. Elastic fasteners designed to restrict longitudinal rail movement are considered rail anchoring.

(c) Each flangeway at turnouts and track crossings shall be at least 1½ inches wide.

(d) For all turnouts and crossovers, and lift rail assemblies or other transition devices on moveable bridges, the track owner shall prepare an inspection and maintenance Guidebook for use by railroad employees which shall be submitted to the Federal Railroad