

Part 215—Railroad Freight Car Safety Standards-Schedule of Civil Penalties¹

Section	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
Subpart A—General:				
215.9 Movement for repair:				
(a), (c)				
(b)	\$2,500	\$5,000	\$5,000	\$10,000
215.11 Designation of qualified persons	2,500	5,000	5,000	10,000
215.13 Pre-departure inspection	2,000	4,000	4,000	8,000
Subpart B—Freight Car Components:				
215.103 Defective wheel:				
(a) Flange thickness of:				
(1) 7/8" or less but more than 13/16"	2,500	5,000	5,000	10,000
(2) 13/16" or less	5,000	7,500	10,000	15,000
(b) Flange height of:				
(1) 1 1/2" or greater but less than 1 5/8"	2,500	5,000	5,000	10,000
(2) 1 5/8" or more	5,000	7,500	10,000	15,000
(c) Rim thickness of:				
(1) 1 1/16" or less but more than 5/8"	2,500	5,000	5,000	10,000
(2) 5/8" or less	5,000	7,500	10,000	15,000
(d) Wheel rim, flange plate hub width:				
(1) Crack of less than 1"	2,500	5,000	5,000	10,000
(2) Crack of 1" or more	5,000	7,500	10,000	15,000
(3) Break	5,000	7,500	10,000	15,000
(e) Chip or gouge in flange of:				
(1) 1 1/2" or more but less than 1 5/8" in length; and 1/2" or more but less than 5/8" in width.	2,500	5,000	5,000	10,000
(2) 1 5/8" or more in length; or 5/8" or more in width	5,000	7,500	10,000	15,000
(f) Slid flat or shelled spot(s):				
(1)(i) One spot more than 2 1/2", but less than 3", in length	2,500	5,000	5,000	10,000
(ii) One spot 3" or more in length	5,000	7,500	10,000	15,000
(2)(i) Two adjoining spots each of which is more than 2" but less than 2 1/2" in length	2,500	5,000	5,000	10,000
(ii) Two adjoining spots both of which are at least 2" in length, if either spot is 2 1/2", or more in length	5,000	7,500	10,000	15,000
(g) Loose on axle	6,000	8,500	12,000	17,000
(h) Overheated; discoloration extending:				
(1) more than 4" but less than 4 1/2"	2,500	5,000	5,000	10,000
(2) 4 1/2" or more	5,000	7,500	10,000	15,000
(i) Welded	5,000	7,500	10,000	15,000
215.105 Defective axle:				
(a)(1) Crack of 1" or less.	2,500	5,000	5,000	10,000

Section	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
(2) Crack of more than 1"	5,000	7,500	10,000	15,000
(3) Break	6,000	8,500	12,000	17,000
(b) Gouge in surface that is between the wheel seats and is more than 1/8" in depth	2,500	5,000	5,000	10,000
(c) End collar with crack or break	2,500	5,000	5,000	10,000
(d) Journal overheated	5,000	7,500	10,000	15,000
(e) Journal surface has: a ridge; a depression; a circumferential score; corrugation; a scratch; a continuous streak; pitting; rust; or etching	2,500	5,000	5,000	10,000
215.107 Defective plain bearing box: general:				
(a)(1) No visible free oil	1,500	3,000	3,000	6,000
(2) Lubricating pad dry (no expression of oil observed when pad is compressed)	5,000	7,500	10,000	15,000
(b) Box lid is missing, broken, or open except to receive servicing	1,000	2,000	2,000	4,000
(c) Contains foreign matter that can be expected to damage the bearing or have a detrimental effect on the lubrication of the journal and bearing	2,500	5,000	5,000	10,000
215.109 Defective plain bearing box: journal lubrication system:				
(a) Lubricating pad has a tear	1,000	2,000	2,000	4,000
(b) Lubricating pad scorched, burned, or glazed	2,500	5,000	5,000	10,000
(c) Lubricating pad contains decaying or deteriorating fabric	2,500	5,000	5,000	10,000
(d) Lubricating pad has an exposed center core or metal parts contacting the journal	2,500	5,000	5,000	10,000
(e) Lubricating pad is missing or not in contact with the journal	5,000	7,500	10,000	15,000
215.111 Defective plain bearing:				
(a) Missing	5,000	7,500	10,000	15,000
(b) Bearing liner is loose or has piece broken out	2,500	5,000	5,000	10,000
(c) Overheated	5,000	7,500	10,000	15,000
215.113 Defective plain bearing wedge:				
(a) Missing	5,000	7,500	10,000	15,000
(b) Cracked	2,500	5,000	5,000	10,000
(c) Broken	5,000	7,500	10,000	15,000
(d) Not located in its design position	5,000	7,500	10,000	15,000
215.115 Defective roller bearing:				
(a)(1) Overheated	5,000	7,500	10,000	15,000
(2) (i) Cap screw(s) loose	2,500	5,000	5,000	10,000
(ii) Cap screw lock broken, missing or improperly applied	1,000	2,000	2,000	4,000
(3) Seal is loose or damaged, or permits leakage of lubricant	2,500	5,000	5,000	10,000
(b)(1) Not inspected and tested after derailment	2,500	5,000	5,000	10,000
(2) Not disassembled after derailment	2,500	5,000	5,000	10,000
(3) Not repaired or replaced after derailment	5,000	7,500	10,000	15,000
215.117 Defective roller bearing adapter:				
(a) Cracked or broken	2,500	5,000	5,000	10,000
(b) Not in its design position	5,000	7,500	10,000	15,000

Section	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
(c) Worn on the crown	2,500	5,000	5,000	10,000
215.119 Defective freight car truck:				
(a)(1) A side frame or bolster that is broken	5,000	7,500	10,000	15,000
(2)(i) Side frame or bolster with crack of: 1/4" or more, but less than 1"	2,500	5,000	5,000	10,000
(ii) 1" or more	5,000	7,500	10,000	15,000
(b) A snubbing device that is ineffective or missing	2,500	5,000	5,000	10,000
(c) Side bearing(s):				
(1) Assembly missing or broken	5,000	7,500	10,000	15,000
(2) In contact except by design	5,000	7,500	10,000	15,000
(3), (4) Total clearance at one end or at diagonally opposite sides of:				
(i) more than 3/4" but not more than 1"	2,500	5,000	5,000	10,000
(ii) more than 1"	5,000	7,500	10,000	15,000
(d) Truck spring(s):				
(1) Do not maintain travel or load	2,500	5,000	5,000	10,000
(2) Compressed solid	2,500	5,000	5,000	10,000
(3) Outer truck springs broken or missing:				
(i) Two outer springs	2,500	5,000	5,000	10,000
(ii) Three or more outer springs	5,000	7,500	10,000	15,000
(e) Truck bolster-center plate interference	5,000	7,500	10,000	15,000
(f) Brake beam shelf support worn	2,500	5,000	5,000	10,000
215.121 Defective car body:				
(a) Has less than 21/2" clearance from the top of rail	2,500	5,000	5,000	10,000
(b) Car center sill is:				
(1) Broken	6,000	8,500	12,000	17,000
(2) Cracked more than 6"	2,500	5,000	5,000	10,000
(3) Bent or buckled more than 21/2" in any 6' length	2,500	5,000	5,000	10,000
(c) Coupler carrier that is broken or missing	2,500	5,000	5,000	10,000
(d) Car door not equipped with operative safety hangers	5,000	7,500	10,000	15,000
(e)(1) Center plate not properly secured	5,000	7,500	10,000	15,000
(2) Portion missing	2,500	5,000	5,000	10,000
(3) Broken	5,000	7,500	10,000	15,000
(4) Two or more cracks	2,500	5,000	5,000	10,000
(f) Broken sidesill, crossbearer, or body bolster	2,500	5,000	5,000	10,000
215.123 Defective couplers:				
(a) Shank bent out of alignment	1,000	2,000	2,000	4,000
(b) Crack in highly stressed junction area.	2,500	5,000	5,000	10,000
(c) Coupler knuckle broken or cracked	2,500	5,000	5,000	10,000
(d) Coupler knuckle pin or thrower that is missing or inoperative.	2,500	5,000	5,000	10,000
(e) Coupler retainer pin lock that is missing or broken	1,000	2,000	2,000	4,000

Section	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
(f) Coupler with following conditions: locklift inoperative; no anticreep protection; or coupler lock is missing, inoperative, bent, cracked, or broken	2,500	5,000	5,000	10,000
215.125 Defective uncoupling device	2,500	5,000	5,000	10,000
215.127 Defective draft arrangement:				
(a) Draft gear that is inoperative	2,500	5,000	5,000	10,000
(b) Yoke that is broken	2,500	5,000	5,000	10,000
(c) End of car cushioning unit is leaking or inoperative	2,500	5,000	5,000	10,000
(d) Vertical coupler pin retainer plate missing or has missing fastener	5,000	7,500	10,000	15,000
(e) Draft key or draft key retainer that is inoperative or missing	5,000	7,500	10,000	15,000
(f) Follower plate that is missing or broken	2,500	5,000	5,000	10,000
215.129 Defective cushioning device	2,500	5,000	5,000	10,000
Subpart C—Restricted equipment:				
215.203 Restricted cars	2,500	5,000	5,000	10,000
Subpart D—Stencilling:				
215.301 General	1,000	2,000	2,000	4,000
215.303 Stencilling of restricted cars	1,000	2,000	2,000	4,000
215.305 Stencilling of maintenance-of-way	1,000	2,000	2,000	4,000

¹ A penalty may be assessed against an individual only for a willful violation. Generally, when two or more violations of these regulations are discovered with respect to a single freight car that is placed or continued in service by a railroad, the appropriate penalties set forth above are aggregated up to a maximum of \$34,401 per day. However, a failure to perform, with respect to a particular freight car, the predeparture inspection required by § 215.13 of this part will be treated as a violation separate and distinct from, and in addition to, any substantive violative conditions found on the car. The Administrator reserves the right to assess a penalty of up to the statutory maximum amount for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

Failure to observe any condition for movement set forth in paragraphs (a) and (c) of §215.9 will deprive the railroad of the benefit of the movement-for-repair provision and make the railroad and any responsible individuals liable for penalty under the particular regulatory section(s) concerning the substantive defect(s) present on the freight car at the time of movement.

Maintenance-of-way equipment not stenciled in accordance with §215.305 is subject to all requirements of this part. See §215.3(c)(3).

[53 FR 52925, Dec. 29, 1988, as amended at 63 FR 11620, Mar. 10, 1998; 69 FR 30593, May 28, 2004; 72 FR 51196, Sept. 6, 2007; 73 FR 79701, Dec. 30, 2008; 77 FR 24419, Apr. 24, 2012; 81 FR 43109, July 1, 2016; 82 FR 16132, Apr. 3, 2017; 83 FR 60746, Nov. 27, 2018; 84 FR 37059, July 31, 2019; 86 FR 1745, Jan. 11, 2021; 86 FR 23241, May 3, 2021; 87 FR 15839, Mar. 21, 2022; 88 FR 1114, Jan. 6, 2023]

Part 231—Railroad Safety Appliance Standards-Schedule of Civil Penalties¹

FRA safety appliance defect code section ²	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
110.A1 Hand Brake or Hand Brake Part Missing	\$5,000	\$7,500	\$ 10,000	\$ 15,000
110.A2 Hand Brake or Hand Brake Part Broken	5,000	7,500	10,000	15,000
110.A3 Hand Brake or Hand Brake Part Loose or Worn	2,500	5,000	5,000	10,000
110.B1 Hand Brake Inoperative	5,000	7,500	10,000	15,000
110.B2 Hand Brake Inefficient	2,500	5,000	5,000	10,000
110.B3 Hand Brake Improperly Applied	2,500	5,000	5,000	10,000
110.B4 Hand Brake Incorrectly located	2,500	5,000	5,000	10,000
110.B5 Hand Brake Shaft Welded or Wrong Dimension	2,500	5,000	5,000	10,000
110.B6 Hand Brake Shaft Not Retained in Operating Position	2,500	5,000	5,000	10,000
110.B8 Hand Brake or Hand Brake Parts Wrong Design	2,500	5,000	5,000	10,000
114.B2 Hand Brake Wheel or Lever Has Insufficient Clearance Around Rim or Handle	2,500	5,000	5,000	10,000
114.B3 Hand Brake Wheel/Lever Clearance Insufficient to Vertical Plane Through Inside Face of Knuckle	2,500	5,000	5,000	10,000
120.A1 Brake Step Missing Except by Design	5,000	7,500	10,000	15,000
120.A2 Brake Step or Brace Broken or Decayed	2,500	5,000	5,000	10,000
120.A3 Brake Step or Brace Loose	2,500	5,000	5,000	10,000
120.B1 Brake Step or Brace Bent	2,500	5,000	5,000	10,000
120.B2 Brake Step or Wrong Dimensions	2,500	5,000	5,000	10,000
120.C1 Brake Step Improperly Applied	2,500	5,000	5,000	10,000
120.C2 Brake Step Improperly Located	2,500	5,000	5,000	10,000
120.C3 Brake Step With Less Than 4" Clearance to Vertical Plane Through Inside Face of Knuckle	2,500	5,000	5,000	10,000
120.C4 Brake Step Obstructed or Otherwise Unsafe	2,500	5,000	5,000	10,000
124.A1 Running Board Missing or Part Missing Except By Design	5,000	7,500	10,000	15,000
124.A2 Running Board Broken or Decayed	5,000	7,500	10,000	15,000
124.A3 Running Board Loose Presents a Tripping Hazard or Other Unsafe Condition	2,500	5,000	5,000	10,000
124.A4 Running Board Wrong Material	2,500	5,000	5,000	10,000
124.B1 Running Board Bent to the Extent that It is Unsafe	2,500	5,000	5,000	10,000
124.B2 Running Board Wrong Dimensions	2,500	5,000	5,000	10,000
124.B3 Running Board Wrong Location	2,500	5,000	5,000	10,000
124.C1 Running Board Improperly Applied	2,500	5,000	5,000	10,000
124.C2 Running Board Obstructed	2,500	5,000	5,000	10,000
126.A1 End Platform Missing or Part Except By Design	5,000	7,500	10,000	15,000
126.A2 End Platform Broken or Decayed	5,000	7,500	10,000	15,000

FRA safety appliance defect code section ²	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
126.A3 End Platform Loose	2,500	5,000	5,000	10,000
126.B1 End Platform or Brace Bent	2,500	5,000	5,000	10,000
126.B2 End Platform Wrong Dimensions	2,500	5,000	5,000	10,000
126.C1 End Platform Improperly Applied	2,500	5,000	5,000	10,000
126.C2 End Platform With Less Than Required Clearance to Vertical Plane Through Inside Knuckle	2,500	5,000	5,000	10,000
126.C3 End Platform Improperly Located	2,500	5,000	5,000	10,000
126.C4 End Platform Obstructed	5,000	7,500	10,000	15,000
128.A1 Platform or Switching Step Missing	5,000	7,500	10,000	15,000
128.A2 Platform or Switching Step Broken or Decayed	5,000	7,500	10,000	15,000
128.A3 Platform or Switching Step Loose	2,500	5,000	5,000	10,000
128.B1 Platform or Switching Step Bent	2,500	5,000	5,000	10,000
128.B2 Platform or Switching Step Does Not Meet the Required Location or Dimensions	2,500	5,000	5,000	10,000
128.C1 Platform or Switching Step Improperly Applied or Repaired	2,500	5,000	5,000	10,000
128.C2 Platform or Switching Step Obstructed	2,500	5,000	5,000	10,000
128.D1 Switching Step Back Stop or Kick Plate Missing	2,500	5,000	5,000	10,000
128.D2 Switching Step Not Illuminated When Required	2,500	5,000	5,000	10,000
128.D3 Non-Illuminated Step Not Painted Contrasting Color	1,000	2,000	2,000	4,000
130.A1 Sill Step or Additional Tread, Missing	5,000	7,500	10,000	15,000
130.A2 Sill Step or Additional Tread, Broken	5,000	7,500	10,000	15,000
130.A3 Sill Step or Additional Tread, Loose	2,500	5,000	5,000	10,000
130.B1 Sill Step or Additional Tread, Bent	2,500	5,000	5,000	10,000
130.B2 Sill Step or Additional Tread, Having Wrong Dimensions or Improperly Located	2,500	5,000	5,000	10,000
130.B3 Sill Step Improperly Applied	2,500	5,000	5,000	10,000
132.A1 Side Missing Step	5,000	7,500	10,000	15,000
132.A2 Side Door Step Broken	5,000	7,500	10,000	15,000
132.A3 Side Door Step Loose	2,500	5,000	5,000	10,000
132.B1 Side Door Step Bent	2,500	5,000	5,000	10,000
132.B2 Side Door Step Having Wrong Dimensions	2,500	5,000	5,000	10,000
134.A1 Ladder Missing	5,000	7,500	10,000	15,000
134.A2 Ladder Broken	5,000	7,500	10,000	15,000
134.A3 Ladder Loose	2,500	5,000	5,000	10,000
134.B1 Ladder Bent	2,500	5,000	5,000	10,000
134.B2 Ladder Having Wrong Dimensions	2,500	5,000	5,000	10,000
134.C1 Ladder Improperly Applied	2,500	5,000	5,000	10,000
134.C2 Ladder Having Insufficient Clearance or Improperly Located	2,500	5,000	5,000	10,000

FRA safety appliance defect code section ²	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
134.C3 Ladder Wrong Design	2,500	5,000	5,000	10,000
134.C4 Ladder Wrong Material	2,500	5,000	5,000	10,000
134.D1 End Clearance Insufficient	2,500	5,000	5,000	10,000
136.A1 Ladder Tread or Handholds Missing	5,000	7,500	10,000	15,000
136.A2 Ladder Tread or Handhold Broken	5,000	7,500	10,000	15,000
136.A3 Ladder Tread or Handhold Loose Except By Design	2,500	5,000	5,000	10,000
136.B1 Ladder Tread or Handhold Bent to The Extent That It May Be Unsafe	2,500	5,000	5,000	10,000
136.B2 Ladder Tread or Handhold Wrong Dimensions	2,500	5,000	5,000	10,000
136.C1 Ladder Tread or Handhold Improperly Applied	2,500	5,000	5,000	10,000
136.C2 Ladder Tread or Handhold Having Wrong Clearance	2,500	5,000	5,000	10,000
136.C3 Ladder or Handhold Improperly Located	2,500	5,000	5,000	10,000
136.C4 Ladder Tread or Handhold Obstructed	2,500	5,000	5,000	10,000
136.C5 Ladder Tread Without Footguards	2,500	5,000	5,000	10,000
138.A1 Hand or Safety Railing Missing	5,000	7,500	10,000	15,000
138.A2 Hand or Safety Railing Broken	5,000	7,500	10,000	15,000
138.A3 Hand or Safety Railing Loose Except by Design	2,500	5,000	5,000	10,000
138.B1 Hand or Safety Railing Bent	2,500	5,000	5,000	10,000
138.B2 Hand or Safety Railing Wrong Dimensions	2,500	5,000	5,000	10,000
138.C1 Hand or Safety Railing Improperly Applied	2,500	5,000	5,000	10,000
138.C2 Hand or Safety Railing Having Less Than the Required Clearance	2,500	5,000	5,000	10,000
138.C3 Hand or Safety Railing Improperly Located	2,500	5,000	5,000	10,000
140.A1 Uncoupling Lever Missing	2,500	5,000	5,000	10,000
140.A2 Uncoupling Lever Broken or Disconnected	2,500	5,000	5,000	10,000
140.B1 Uncoupling Lever Bent Will not Safely and Reasonably Function As Intended	2,500	5,000	5,000	10,000
140.C1 Uncoupling Lever Bracket Bent Lever Will Not Function Properly	2,500	5,000	5,000	10,000
140.C2 Uncoupling Lever Bracket Broken or Missing	2,500	5,000	5,000	10,000
140.D1 Uncoupling Lever Wrong Dimension	2,500	5,000	5,000	10,000
140.D2 Uncoupling Lever With Improper Handle Clearance	2,500	5,000	5,000	10,000
144.A1 Coupler Missing	5,000	7,500	10,000	15,000
144.B1 Coupler Height Incorrect	2,500	5,000	5,000	10,000
144.C1 Coupler Inoperative	2,500	5,000	5,000	10,000
145.A1 Kick Plates Missing	2,500	5,000	5,000	10,000
145.A2 Kick Plates Broken	2,500	5,000	5,000	10,000
145.B1 Kick Plates Wrong Dimensions	2,500	5,000	5,000	10,000
145.B2 Kick Plates Improper Clearance	2,500	5,000	5,000	10,000

FRA safety appliance defect code section ²	Violation (Base)	Willful Violation (Base)	Violation (Effective Mar. 8, 2023)	Willful Violation (Effective Mar. 8, 2023)
145.B3 Kick Plates Insecure Or Improperly Applied	2,500	5,000	5,000	10,000
146.A Notice or Stencil not Posted on Cabooses with Running Boards Removed	1,000	2,000	2,000	4,000
146.B Safe Means not Provided to Clean or Maintain Windows of Caboose	1,000	2,000	2,000	4,000
231.31 Drawbars, standard height	2,500	5,000	5,000	10,000

¹ A penalty may be assessed against an individual only for a willful violation. The Administrator reserves the right to assess a penalty of up to the statutory maximum amount for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

² This schedule uses section numbers from FRA's Safety Appliance Defect Code, a restatement of the CFR text in a reorganized format. For convenience, and as an exception to FRA's general policy, penalty citations will cite the defect code rather than the CFR. FRA reserves the right, should litigation become necessary, to substitute in its complaint the CFR and/or statutory citation in place of the defect code section cited in the penalty demand letter.

[53 FR 52933, Dec. 29, 1988, as amended at 63 FR 11623, Mar. 10, 1998; 66 FR 4193, Jan. 17, 2001; 73 FR 79703, Dec. 30, 2008; 77 FR 24421, Apr. 24, 2012; 77 FR 26704, May 7, 2012; 81 FR 43111, July 1, 2016; 83 FR 60748, Nov. 27, 2018]



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

April 26, 2024

Elizabeth F. Whited
President
Union Pacific Railroad
1400 Douglas St.
Omaha, NE 68179
Via email: EFWHITED@up.com

RE: Safety Culture Assessment Data Collection Suspension

Dear Ms. Whited:

The Federal Railroad Administration (FRA) has been made aware of several activities that may adversely impact the integrity of the Safety Culture Assessment on Union Pacific Railroad (UPRR). As a result of this, FRA is suspending its safety culture data collection activities as of April 26, 2024.

FRA has discovered that numerous employees were coached to provide specific responses to FRA questions if they were approached for a safety culture interview. Reports of this coaching span the UPRR system and railroad crafts. FRA has also encountered reluctance to participate in field interviews from employees who cite intimidation or fear of retaliation. Additionally, other employees have informed FRA inspectors that they have received instruction that if they are approached to complete a field interview, they must report this interaction to their supervisor. This puts at risk FRA's commitment to keep responses related to the Safety Culture Assessment confidential. Data integrity and confidentiality are fundamental and essential to FRA's assessment activities. Continuing to collect data when the objectivity of the information collected is in question is not fair to the employees at UPRR, the FRA staff who devote time and effort to these inspections, and to the public. As such, with widespread evidence that these fundamental elements have been jeopardized, FRA has no choice but to end data collection activities.

FRA will continue to exercise its statutory authority to conduct inspections, accident investigations, and other railroad safety oversight activities. As you are aware, FRA personnel may enter railroad property unannounced to inspect railroad facilities, equipment, rolling stock, operations, and relevant records to enforce the Federal railroad safety laws, 49 U.S.C. §§ 20101 et seq., and their respective implementing regulations.

FRA is committed to assisting railroads in fostering a robust safety culture. Because I believe the best path to improvement requires clear information about actual conditions, FRA will likely re-initiate a UPRR Safety Culture Assessment again either later this year or early next year. In the interim, FRA will work with UP to identify policies and practices that, if improved, would maximize the usefulness of safety culture data collection.

Sincerely,



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FRA MP&E

Freight Car Inspection Time Study

All Class 1 Railroads

July 17, 2024

Considerations of Collected Data

- Inspection data was captured as an average across all CL 1 Railroads. Defect ratios and defects identified do not represent performance but are a measure to consider when developing an inspection time standard.
- Defect Ratios are consistent with FRA MP&E Focus inspections conducted in the previous 2 years.
- The data from this study has been used to make 7 key recommendations to CL 1 Railroads. Outlined at the end of this presentation.
- The time study was developed from FRA Inspections, FRA surveys, FRA observations, and Railroad record inspections. This data is being used as recommendations to consider when developing a freight car inspection standard.
- We are looking at ways to improve the inspection and test process, how do we get better?

Background

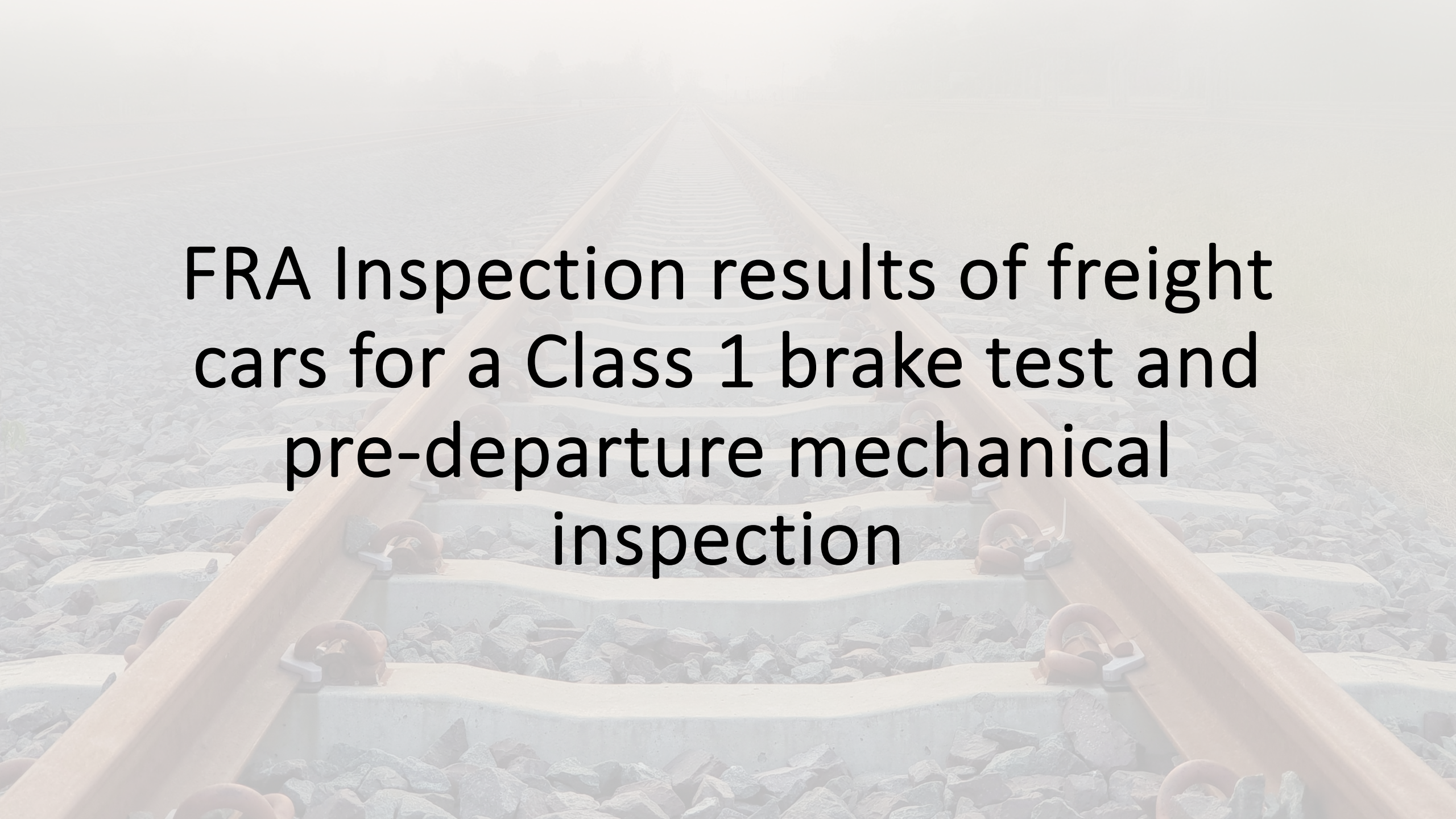
- Some railroads have established standards to determine the amount of time it takes to inspect 1 freight car.
- 1 freight car multiplied by the number of cars in the train determines the call time for that train. Railroads may not take into account types of cars or environmental conditions when determining time allotments.
- Norfolk Southern Railroad developed a process to determine the time it takes to inspect each car. (1min 30sec)
- Unions are concerned that the timelines for inspections are not realistic and that they don't have the employees to meet these standards to properly perform their tasks.
- Unions are also concerned about craft utilization in order to avoid higher inspection regulatory criteria as well as consolidating duties onto train crews.

Record Inspections

- FRA performed a study of completed train inspections for Class 1 brake tests, where data was recorded for 90 days.
- FRA reviewed records of trains called, total work time, compared bad orders, identified the number of carmen and start and stop times to determine inspection activity without FRA presence. Real time, manual data collection.
- A file number is established to track data and will be captured on the 96 Report.
- FRA conducted this study in a discrete manner. Railroads cannot alter results or activity when FRA is present.

Class 1 Brake Test Train Inspection

- Inspectors from all 8 MP&E Districts
- Specific focus on Mechanical, Transportation crews and Utility employees.
- Tracked by assigned file numbers to enable data collection for each craft.
- FRA confirmed data supplied by selected team.

A perspective view of railroad tracks receding into the distance, overlaid with a semi-transparent white box containing text.

FRA Inspection results of freight cars for a Class 1 brake test and pre-departure mechanical inspection

FRA Inspection Totals

Frt. Car Insp.	8,711
Loco. Insp.	67
Steam Loco. Insp.	0
Pass. Car Insp.	0
Freight Car Defect	1,261
Locomotive Defect	41
Steam Loco. Defect	0
Pass. Car Defect	0
Frt. Car Defect Ratio	14.48%
Loco. Defect Ratio	61.19%
Pass. Car Defect Ratio	0.00%

Reports	Defects (Occ.)	Violations
193	1,863	47

Top Defects by Railroad

RAILROAD OR COMPANY CODE	REGION	Defects (Occurrences)
CSX	1	175
CSX	3	153
CSX	4	51
CSX	2	21
CSX Total		400
UP	4	117
UP	8	115
UP	7	96
UP	5	66
UP	6	3
UP Total		397
BNSF	6	136
BNSF	8	131
BNSF	4	52
BNSF	7	38
BNSF	5	29
BNSF Total		386
CPKC	4	229
CPKC	5	7
CPKC Total		236
NS	3	94
NS	2	45
NS	1	30
NS	5	16
NS	4	8
NS Total		193
BRC	4	121
BRC Total		121
CN	4	92
CN Total		92
ALS	6	33
ALS Total		33
FPQZ	5	5
FPQZ Total		5

Mechanical Inspection Totals

Frt. Car Insp.	5,537
Loco. Insp.	17
Steam Loco. Insp.	0
Pass. Car Insp.	0
Freight Car Defect	797
Locomotive Defect	9
Steam Loco. Defect	0
Pass. Car Defect	0
Frt. Car Defect Ratio	14.39%
Loco. Defect Ratio	52.94%
Pass. Car Defect Ratio	0.00%

Reports	Defects (Occ.)	Violations
111	1,122	32

Crew Inspection Totals

Frt. Car Insp.	2,393
Loco. Insp.	47
Steam Loco. Insp.	0
Pass. Car Insp.	0
Freight Car Defect	397
Locomotive Defect	32
Steam Loco. Defect	0
Pass. Car Defect	0
Frt. Car Defect Ratio	16.59%
Loco. Defect Ratio	68.09%
Pass. Car Defect Ratio	0.00%

Reports	Defects (Occ.)	Violations
62	664	15

Utility Employee Totals

Frt. Car Insp.	781
Loco. Insp.	3
Steam Loco. Insp.	0
Pass. Car Insp.	0
Freight Car Defect	67
Locomotive Defect	0
Steam Loco. Defect	0
Pass. Car Defect	0
Frt. Car Defect Ratio	8.58%
Loco. Defect Ratio	0.00%
Pass. Car Defect Ratio	0.00%

Reports	Defects (Occ.)	Violations
20	77	0

Mechanical Top Defects

<u>232.0103.F3</u>	FREIGHT CAR AIR BRAKES ARE NOT IN EFFECTIVE OPERATING CONDITION- OTHER (EXPLAIN IN DETAIL)	318
<u>231.0126.A2</u>	END PLATFORM BROKEN OR DECAYED	47
<u>231.0136.B1</u>	LADDER TREAD OR HANDHOLD BENT TO THE EXTENT THAT IT MAY BE UNSAFE	47
<u>231.0136.A3</u>	LADDER TREAD OR HANDHOLD LOOSE EXCEPT BY DESIGN	43
<u>231.0136.C2</u>	LADDER TREAD OR HANDHOLD HAVING WRONG CLEARANCE	41

Crew Top Defects

<u>232.0103.F3</u>	FREIGHT CAR AIR BRAKES ARE NOT IN EFFECTIVE OPERATING CONDITION- OTHER (EXPLAIN IN DETAIL)	152
<u>231.0136.C2</u>	LADDER TREAD OR HANDHOLD HAVING WRONG CLEARANCE	64
<u>231.0136.A3</u>	LADDER TREAD OR HANDHOLD LOOSE EXCEPT BY DESIGN	34
<u>229.0021.A2</u>	FAILURE TO MAKE WRITTEN/ELECTRONIC REPORT OF DAILY INSPECTION	31
<u>231.0130.A3</u>	SILL STEP OR ADDITIONAL TREAD, LOOSE	25

Utility Employee Top Defects

232.0103.F3	FREIGHT CAR AIR BRAKES ARE NOT IN EFFECTIVE OPERATING CONDITION- OTHER (EXPLAIN IN DETAIL)	14
215.0123.D1	COUPLER KNUCKLE PIN/KNUCKLE THROWER MISSING	8
231.0136.A3	LADDER TREAD OR HANDHOLD LOOSE EXCEPT BY DESIGN	6
231.0124.C5II	FAILURE TO PAINT OR OTHERWISE DISPLAY ON EACH SIDE SILL NEAR CORNER A YELLOW RECTANGLULAR AREA WITH THREE-FOURTH	5
215.0301.A1	FAILURE TO STENCIL CAR REPORTING MARK, NUMBER AND DATE BUILT ON FREIGHT CAR AS REQUIRED	4

Comparison of Totals

❖ Mechanical Defect Ratio: 14.39%

- ❖ Total cars inspected: 5,537

- ❖ Top defects: freight car air brakes (part 232), safety appliance (part 231)

❖ Crew Defect Ratio: 16.59%

- ❖ Total cars inspected: 2,393

- ❖ Top defects: freight car air brakes (part 232), safety appliance (part 231), locomotive safety standards (part 229)

❖ Utility Employee Defect Ratio: 8.58%

- ❖ Total cars Inspected 781 (Note: FRA did not collect enough data to base conclusions on Utility employees, nor are “Utility” employees consistently used across all Class 1 railroads)

- ❖ Top defects - freight car safety standards – mechanical (part 215), freight car air brakes (part 232), safety appliance (part 231)

What FRA Evaluated

- Inspections in real time across all 8 districts on class 1 railroads.
- Number of inspectors.
- Number of cars inspected.
- Number of cars with bad orders.
- Day and night operations.

What did we learn?

- Regulations require that originating trains be defect free and have 100% operating brakes. Defect rates of 14% for QMIs and 16% for Crews, indicating that neither are properly empowered to perform proper inspections. The top defect by CFR is 232.103.F3 (Brake shoes) by all crafts.
- Note: Inspection times do not account for repairs and/or setting out cars.
- FRA has observed the practice of brake tests being conducted from vehicles, utility vehicles, and ATV's. FRA believes this practice does not provide for a quality inspection. The practice is driven by time constraints and pressures and is used to decrease inspection times at the cost of quality.
- During this study, FRA has observed that railroad operations and practices are altered while the FRA is conducting inspections. This was observed as "going back to normal" when FRA isn't present. Railroads should be consistent in the practices and policies regardless of FRA presence.
- FRA has observed confidence in brake tests conducted by Qualified Mechanical Inspectors (QMIs). 54% of FRA inspectors believe mechanical employees conduct an adequate inspection, while 86% of FRA Inspectors believe crew and utility employee brake tests are "less than adequate." Analysis: regardless of who's inspecting railcars (QMIs or crews), there is a severe lack of belief amongst FRA Inspectors that proper, adequate inspections are being performed. However, FRA inspectors do have greater confidence in QMI inspections, especially if given adequate time to inspect.
- 44% of FRA inspectors have observed what they consider the minimal number of mechanical employees. 54% of FRA Inspectors believe Mechanical inspectors are less pressured to complete brakes tests than train crews. Comparatively, 51% of FRA inspectors have observed crews being pressured or intimidated to rush brake tests. Conclusion: FRA is concerned that inappropriate pressures are being applied to inspectors – both QMIs and train crews.
- Summary: Railroads currently do not have Class 1 brake test and mechanical inspection operations that support safe, compliant, and quality inspections to ensure that trains are safe.

Overall Time Expended Average per Freight Car

- Mechanical or carmen inspectors with FRA present **1minute and 38 seconds**.
- Train crews with FRA inspectors present **2 minutes and 16 seconds**.
- Utility Employee with FRA present **3 minutes and 18 seconds**.
- Mechanical or carmen inspection (Records Inspection) with no FRA present **44 seconds**.
 - **Analysis: It is very concerning to see such large differences in time allotments for QMI Carmen depending on the presence of FRA Inspectors**

Remarks noted by Inspectors

- Mechanical employees conduct a more thorough inspection while FRA is present and are more willing to take bad orders and write "FRA in track" on the bad order tag.
- "CPKC has a completely different game plan when FRA is present and when they are not. When FRA is on property, they prepare with bringing in extra employees to anticipate all the extra repairs that will be needed to be made. When FRA is not present, they work trains with as little as two employees on outbound and don't even utilize the in-train repair vehicle because no defects are taken. When I observed this 49-car head end of the train I found one violation and seven defects. The Carman also found approximately ten additional defects. That is me walking directly behind the Carman, so they know I am on property. When I am not on property, they might find two three defects in twenty-four hours. It's not realistic. "
- "While observing class 1 brake tests, car inspectors encouraged me to walk with them to ensure any defects noted were taken much more seriously. It appears that some mechanical employees may experience some pushback from transportation at times. "
- "The crew was called before the carman even got air through the train and transportation was already asking when it would be done"
- "The crew was called before the train was set. They set the train and by the time the carmen locked it up the crew was on the end trying to put power on the train. We received a call from the mechanical manager stating that we were delaying a train that had already been air tested and was waiting to pull. The carmen had not even laced the train up at this point. Then the superintendent sent out a transportation manager to see why we were delaying his train"

FRA Recommendations to Class 1 Railroads

1. Railroads should deploy car inspection standards and policies that ensure the safe, quality and compliant inspection of freight cars. FRA observations and data collection indicate railroads currently do not support safe, compliant, and quality inspections by properly trained personnel.
2. Qualified Mechanical Inspectors (QMIs) should be performing inspections on foot so they can observe the function and operation of brakes and other mechanical components. FRA has observed the practice of brake tests and inspections being conducted from vehicles, utility vehicles, and ATV's. FRA believes this practice does not provide for a quality inspection, and that it is a time-driven policy used to decrease inspection times at the cost of inspection quality.
3. Qualified Mechanical Inspectors (QMIs) are trained to a higher standard and subject to stricter regulatory requirements during their inspections. QMIs find more defects than train crews or utility employees and would likely find even more if given the time to properly inspect.
4. Qualified Mechanical Inspectors (QMIs) should be used to conduct Class 1 brake tests. QMIs conduct better-quality inspections as demonstrated by inspection data and observations. Railroads continue to reduce mechanical forces performing inspections in order to rely on train crews and utility personnel to perform brake tests. This occurs at locations where carmen are/were typically assigned to inspect, despite the intent of the regulations to have Designated Inspectors to perform these inspections. [49 CFR 215.13 (b)]
5. Railroads should develop time standards for brake tests/inspections. The current 14% defect ratio for mechanical inspectors and a 16% defect ratio for transportation inspectors is unacceptable. Railroads should strive for near-zero defect ratios when trains depart. Railroads should consider the ratios of defects when determining a time standard for inspections.
6. When FRA was present, observed inspection times for QMIs averaged 1:38 seconds per car, while train crews to averaged 2:16 per car. However, when FRA was not observing, QMIs were given an average of 44 seconds – less than half. This was determined by reviewing inspection records, including time-on/time-off records. These times should serve as minimums as they do not reflect fatigue, weather conditions, walking conditions, repairs, setting out bad order cars, and blue flag procedures.
7. FRA observed Class 1 Brake tests conducted by Crews or Utility Employees. Report data, and time observations do not support confidence in the performance of quality inspections. FRA's believes that mechanical employees perform a more quality brake test when given adequate time, and this would contribute to a safer trains.