



Memorandum

U.S. Department
of Transportation

Federal Railroad
Administration

Date: **MAR 11 2009**

Reply to Att. of: **MP&E 09-02**

Subject: New Source/Defect Codes for Electronically Controlled Pneumatic Brake Equipment Inspections and New Inspection Report Requirements on Out-Shopped Locomotives and Cars

From: Edward W. Pritchard
Director, Office of Safety Assurance and Compliance
Michael Logue for

To: Regional Administrators, Deputy Regional Administrators, MP&E Specialists, Chief Inspectors, Railroad Safety Oversight Managers, State Program Managers, and all Federal and State MP&E Inspectors

The purpose of this technical bulletin (TB) is to provide notification of the new defect and source codes to be used in connection with inspections performed on electronically controlled pneumatic (ECP) brake-equipped trains. This TB also provides notice that inspectors will insert the word **SHOP** in the "File Number" field when conducting inspections on out-shopped motive power or rolling stock. These inspections will require completion of a separate inspection report, Form FRA F6180.96.

ECP Inspection Activity

On October 16, 2008, the Federal Railroad Administration (FRA) amended Title 49 Code of Federal Regulations Part 232 (Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment; End-of-Train Devices) by publishing new regulations (*see* Federal Register Vol. 73, No. 201) that address the maintenance and operation requirements for ECP brake systems. The final rule became effective January 12, 2009. Attached are over 40 ECP brake-related defect codes to document noncompliance with the Federal regulations. In order for FRA to measure the level of Federal compliance by railroads deploying ECP brake systems, it will be necessary for inspectors to use a new source code to enable appropriate filtering of inspection data associated with ECP brake inspections. Thus, when an inspection is made on an ECP brake-equipped train, inspectors must complete a separate inspection report using Source Code **G**, along with all related inspection activity associated with the ECP brake-equipped train (e.g., Parts 215, 231, 232, etc.). Source Code **G** must also be used when inspection activities such as Parts 218, 223, 229, etc., involve ECP brake-equipped trains and equipment.

Out-Shopped Inspection Activity

Effective immediately, whenever an inspection is made of motive power or rolling stock (passenger or freight) that has been released from a repair facility (e.g., diesel shop, service track, repair track, expediter track, etc.), inspectors must complete a separate inspection report using the word **SHOP** in the File Number field, along with all related inspection activity associated with the out-shopped inspection (e.g., Parts 215, 218, 223, 229, 231, 232, 238, etc.). Using the word **SHOP** in the File Number field will enable FRA to quantify the number of inspections conducted by MP&E inspectors and measure the quality of repairs performed by railroad personnel on equipment released from repair shops.

Upon receipt of this TB, inspectors should run Sync Reference Files in RISPC to ensure all new defect and source codes are downloaded and updated. If assistance is needed with RISPC sync procedures, contact your regional IT person, or contact Rob Siegfried at (202) 493-6483.

If there are any other questions or concerns, please contact Ron Newman at (202) 493-6241.

Attachment

MP&E Defect Codes – ECP Brake Defect Codes*
January 2009

49 CFR	Defect	Subrule	Description	Activity
232	603	a	Freight car or train does not meet minimum ECP brake standards.	MREC, 232, or 232A
232	603	b	Freight car or train in use and equipped with ECP brake(s) without approval.	MREC
232	603	c	Failure of railroad to adopt and comply with a proper configuration management plan.	MREC
232	605	a	Failure of railroad or contractor to adopt and comply with a proper training, qualification, and designation program for employees that perform inspection, testing or maintenance on ECP brake systems.	MREC
232	605	b	Failure of railroad to amend operating rules to ensure safe operation of trains equipped with ECP brakes.	MREC
232	605	c	Failure of railroad to adopt and comply with proper training for locomotive engineers operating trains equipped with ECP brakes.	MREC
232	607	a1	Complete or partial failure to use QMI to conduct inspection of freight train operating in ECP mode at point of origin.	232, 232A
232	607	a2	Complete or partial failure to use inspector designated under § 215.11 to inspect freight train operating in ECP mode at point of origin.	232, 232A
232	607	b1	Train operating in ECP mode past destination or in excess of 3500 miles without receiving an inspection by a QMI or an inspector designated under § 215.11.	232, 232A
232	607	b2	Unit or cycle train operating in ECP mode in excess of 3500 miles without receiving an inspection by a QMI or an inspector designated under § 215.11.	232, 232A
232	607	b3	Failure of railroad to account for most restrictive car operating in ECP mode train when calculating distance train has traveled.	232, 232A
232	607	b4i	ECP-equipped train left standing in excess of 24 hours without retest as described in § 232.205(c).	232, 232A
232	607	b4ii	ECP-equipped train left standing at location defined as “Extended-off-air-facility” in excess of 80 hours without retest as described in § 232.205(c).	232, 232A
232	607	c1	Complete or partial failure to meet conditions required for performing a visual inspection in lieu of a Class I test for ECP-equipped cars added en route to ECP train. <i>(Provide details)</i>	232, 232A

* Source Code G must be used with any of these Defect Codes

MP&E Defect Codes – ECP Brake Defect Codes*
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49 CFR	Defect	Subrule	Description	Activity
232	607	c2	Complete or partial failure to visually inspect non-equipped ECP cars or solid block of cars to ensure it is properly placed in the train, tagged in accordance with § 232.15, and safe to operate when added to an ECP train en route.	232, 232A
232	607	d1	Failure to perform a Class III brake test after continuity of brake pipe or electrical connection is broken or interrupted.	232, 232A
232	607	e1	Failure to initialize train operating in ECP mode following qualifying event. <i>(Specify event, e.g., Class I, Brake Test, Class III Brake Test, or whenever ECP brake system is powered on).</i>	232, 232A
232	607	e2	Failure to properly initialize ECP train in sequential order.	232, 232A
232	607	e3	Failure of train crew to verify total number of cars indicated by ECP brake system is identical to train consist.	232, 232A
232	607	f1	Failure to apply an equivalent procedure associated with brake pipe service reductions and increases when conducting required inspections on ECP brake systems.	232, 232A
232	607	f2	Failure to properly adhere to the proper piston travel ranges on car(s) equipped with ECP brake systems.	232, 232A
232	607	g1	ECP brake line cable not properly located or guarded to provide sufficient vertical clearance.	232, 232A
232	607	g2	ECP brake line cable causing a tripping hazard.	232, 232A
232	607	g3	ECP brake line cable hanging with one end free during use and train movement.	232, 232A
232	607	g4	ECP brake line cable interfering with safety appliance(s). Specify appliance.	232, 232A
232	607	g5i	ECP brake line cable with badly chafed or broken insulation.	232, 232A
232	607	g5ii	ECP brake line cable with broken plugs, receptacles, or terminals.	232, 232A
232	607	g5iii	ECP brake line cable with broken/protruding strands of wire.	232, 232A
232	609	a	Failure to have proper percentage of operative brakes in ECP mode train prior to use or departure from the train's initial terminal or any location where a Class I brake test is required to be performed on the entire train by a QMI.	232, 232A

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49 CFR	Defect	Subrule	Description	Activity
232	609	b	Failure to prevent a car known to arrive with defective brakes to depart location where a Class I brake test is required.	232, 232A
232	609	c	Improper movement of a car equipped with conventional pneumatic brakes in ECP mode train.	232, 232A
232	609	d	Complete or partial failure to meet conditions for movement on ECP mode train operating with less than 85 percent operative brake. <i>(Provide details)</i>	232, 232A
232	609	f1	Improper placement of defective conventional brake equipment in ECP mode train.	232, 232A
232	609	f2	Improper placement of defective ECP brake equipment in train.	232, 232A
232	609	g1	Improper movement of defective stand-alone ECP brake equipment in a train operating with conventional pneumatic brakes.	232, 232A
232	609	h1	Improper movement from initial terminal of stand-alone ECP brake equipment in a conventional brake operated train.	232, 232A
232	609	i	Failure to properly tag defective ECP equipment.	MREC
232	609	i1	Failure of ECP brake system to display or provide information relative to location and identification of defective ECP equipment to FRA or railroad personnel.	232, 232A
232	609	j1	Failure of railroad to adopt and comply with procedures for the movement of defective ECP brake equipment.	MREC
232	609	j2	Failure of railroad to submit list of ECP brake system repair locations to FRA.	MREC
232	611	a1	Failure to inspect and/or repair freight car equipped with an ECP brake system prior to being released from a shop or repair track to ensure ECP components are in proper condition for service. <i>(Provide details)</i>	232, 232A
232	611	c	Failure to perform single car test on ECP-equipped car when required by qualifying events.	232, 232A
232	611	d	Failure to perform single car test on ECP-equipped car prior to entry into revenue service.	232, 232A
232	613	a	Failure to meet design standards for ECP–EOT devices.	MREC or 232E
232	613	b	ECP train moving with an improper or improperly connected ECP–EOT device	232E

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