

Memorandum




Date: April 30, 2018

Reply to Attn of: MP&E 18-01

Subject: Technical Bulletin MP&E 18-01, Enforcement Guidance for requiring a manual reset to restart the alerter warning timing cycle, Title 49 Code of Federal Regulations Section 229.140(b)(3)

From: Thomas J. Herrmann, Director, Office of Technical Oversight

To: 
All Regional Administrators and Deputy Regional Administrators, Motive Power and Equipment (MP&E) and Operating Practices (OP) Specialists, Chief Inspectors, Railroad Safety Oversight Managers, State Program Managers, and all Federal and State MP&E and OP Inspectors

Background: The purpose of this Technical Bulletin (TB) is to provide Inspectors with guidance in the application of Title 49 Code of Federal Regulations (CFR) Section 229.140(b)(3)—*Alerters*. Two National Transportation Safety Board (NTSB) recommendations (R-15-004 and R-15-005) reinforces the importance of the requirement for an engineer to take direct action, either by operation of certain controls or actuation of the manual reset, to restart the alerter warning timing cycle. The Federal Railroad Administration (FRA) recognizes that this is necessary to ensure safety and is required by the current regulation. Therefore, this TB provides guidance on enforcement of this requirement, and the prohibition of automated systems being allowed to restart an alerter warning timing cycle.

To summarize the incident referenced in NTSB Recommendation R-15-004: On Friday, August 17, 2014, a southbound Union Pacific Railroad (UP) freight train collided with a northbound UP freight train while traversing a turnout at Hoxie, Arkansas. The track in the area transitions from a single main track to two main tracks. As a result of the collision, the engineer and the conductor from the southbound train were fatally injured, and the engineer and the conductor from the northbound train were transported with serious injuries to local hospitals. The horn sequencer was wired to reset a locomotive's alerter without direct engineer action and did not function as intended. Safety Recommendation R-15-004 asked FRA to "review its existing regulations and your Motive Power and Equipment Compliance Manual, and revise them as needed to prohibit automatic systems from resetting the locomotive alerter."

FRA issued Safety Advisory 2015-06, on December 1, 2015, to notify the railroads of the circumstances of this accident and the risks posed by automated inputs that reset alerter cycles. The Safety Advisory also encouraged railroads to review the operation of their locomotive systems to ensure that no system resets the alerter warning timing cycle without direct engineer action. In addition, FRA will revise its MP&E Compliance Manual to emphasize the importance

of enforcing compliance with existing alerter requirements that prohibit automated systems from being allowed to restart an alerter warning timing cycle.

Guidance: Based on investigation of the Hoxie accident, FRA recognized that automatic systems within a freight locomotive, specifically the horn sequencer, can be wired to reset a locomotive's alerter without direct action by the engineer. FRA's review of existing safety regulations confirmed the current regulations in Title 49, Code of Federal Regulations (CFR) Section 229.140–*Alerters*, clearly prohibits this type of alerter reset. Specifically, 49 CFR § 229.140(b)(3) requires actual movement of the engineer's horn activation handle to reset the alerter warning timing cycle.

Section 229.140(b) requires engineers to take direct action, either by operation of certain controls or actuation of the manual reset, to restart the alerter warning timing cycle. Further, per 49 CFR § 229.140(e), the alerter must be functioning and operating as intended when the locomotive is used. This TB stresses that FRA Inspectors' need to be vigilant in the enforcement of these regulatory requirements during regular inspections and enforcement activities. In addition, Regional MP&E Specialists are requested to report to the MP&E Staff Director any locomotive found to have an alerter wired to automatically reset without an engineer's direct action.

If there are any questions or concerns regarding the automatic reset of a locomotive's alerter, please contact the Staff Director of the MP&E Division in the Office of Technical Oversight at (202) 493-6322.

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