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U.S. DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

Safety Advisory 2025-02; Track Is Clear Determination During Shoving or Pushing Movements Across Highway-Rail Grade Crossings Equipped Only with Flashing Lights or Passive Warning Devices

AGENCY: Federal Railroad Administration (FRA), U.S. Department of Transportation (DOT).

ACTION: Notice of Safety Advisory.

SUMMARY: FRA is issuing Safety Advisory 2025-02 to emphasize the importance of determining that the “track is clear” prior to shoving or pushing movements across highway-rail grade crossings (crossings) equipped only with flashing lights or passive warning devices. This advisory focuses specifically on the need for adequate job briefings and visual assessments before railroad equipment traverses a crossing, the action required if a “track is clear” determination cannot be made, and the need for railroads to evaluate certain crossings to determine if it is feasible for an employee riding a shove move to make the track is clear determination. Recent accidents demonstrate that railroads and their employees may require additional training and operational testing to ensure sufficient understanding and compliance with “track is clear” procedures, and in some cases operating rules and/or bulletins need to be updated to require stop and flag at certain crossings. To address these concerns, FRA is recommending that railroads and railroad employees take certain actions to improve the safety of shoving or pushing movements over crossings equipped only with flashing lights or passive warning devices.

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Disclaimer: This Safety Advisory is considered guidance pursuant to DOT Order 2100.6A (June 7, 2021). Except when referencing laws, regulations, policies, or orders, the information in this Safety Advisory does not have the force and effect of law and is not binding in any way. This document does not revise or replace any previously issued guidance.

SUPPLEMENTARY INFORMATION:

Significant Incidents

On April 23, 2020, in Northlake, Illinois, a Union Pacific Railroad Company remote control operator (RCO) with 21 years of service was fatally injured while controlling and protecting the point of a remote control shove movement during daylight hours. Video footage of the accident indicated the fatally injured employee was riding on the equipment being shoved. The rolling equipment was moving towards a passively protected industry crossing equipped only with crossbuck signs. When the equipment was approximately one-and-a-half railcar lengths from the crossing, the RCO waved his arm at a semi-truck approaching the crossing and initiated an emergency brake application. The equipment the RCO was riding did not stop before entering the crossing and collided with the semi-truck.

On October 29, 2021, in Houston, Texas, a Watco Rail Services brakeman with less than one year of service was fatally injured while protecting the point of a shove movement during nighttime hours. The brakeman was riding the point of the shove

movement as the train was approaching a private grade crossing and acknowledged via radio that the engineer was clear to continue shoving. A few seconds later, a semi-tanker truck turned onto the passively protected crossing without yielding, colliding with the lead railcar on which the brakeman was riding.

On March 7, 2023, in Cleveland, Ohio, a Norfolk Southern Railway Company conductor with 18 years of service was fatally injured when the black tank car he was riding was struck by a dump truck at a passively protected private crossing in a steel plant. The incident occurred at night; however, the yard was lighted, and the conductor had his lantern on. Prior to the incident, the conductor was in communication with the engineer via radio.

On December 4, 2025, in Ontario, California, a Union Pacific Railroad brakeman riding the leading end of a shove movement on an industrial lead was fatally injured when the train collided with a semi-truck at a grade crossing equipped only with flashing lights. Although the accident is still under investigation, preliminary information indicates that the brakeman was positioned opposite the RCO who was controlling the movement. Initial findings suggest the train entered the crossing without confirming the track was clear.

These accidents each involved operations which required compliance with 49 CFR 218.99(b)(3). Section 218.99(b)(3) requires a crewmember or other qualified employee to provide “point protection” when rolling equipment is being shoved or pushed. In providing point protection, the crewmember or other qualified employee must make a visual determination that the “track is clear” before conducting the shoving or pushing movement. Determining that a “track is clear” requires ensuring that all

intervening public and private highway-rail grade crossings, pedestrian crossings, and yard access crossings are protected. *See* 49 CFR 218.93 (defining “track is clear”).

Another element of the “track is clear” requirement is the visual assessment to determine the absence of vehicular traffic approaching or stopped at these crossings. Such assessments must consider any visual impediments that would prevent the complete assessment of the crossing and the roadway access to the crossing. If, for any reason, a complete visual assessment of the crossing cannot be performed, the shoving or pushing movement must not proceed over the crossing. This includes situations where weather conditions (e.g., fog, heavy rain), or obstructions like vegetation, buildings, or vehicles that might make turns off parallel roads, limit the ability to perform a visual assessment of the crossing. In such cases, protection must be provided by a designated and qualified employee who is stationed at the crossing and can communicate with any train traversing the crossing. Similarly, if point protection is provided with the aid of technology, “the technology must work as intended and most malfunctions of the technology should be detectable, and result in abandoning the use of the technology for determining point protection until the malfunction can be corrected.” *See* 49 CFR part 218, app. D. The regulation puts the burden on the railroad to protect crossings during shoving or pushing movements and thus prevent foreseeable accidents that can occur when point protection is inadequate.

Unlike trains with locomotives in the lead position, which are highly conspicuous with headlights, ditch lights, bells, and horns, rolling equipment being shoved or pushed is typically much less conspicuous. Motorists stopped at or approaching grade crossings equipped only with flashing lights or passive warning devices may not see or hear

approaching movements that are shoved or pushed. A shoving or pushing movement should proceed only upon satisfactory visual confirmation by a crewmember or other qualified employee providing point protection that a grade crossing is devoid of any stopped or approaching motor vehicles, unless alternative protection is provided (such as a designated and qualified employee who is properly stationed at the crossing and can communicate with train crews).

Recommended Actions

1. Railroads should review their rules related to 49 CFR 218.99, *Shoving or pushing movements*, to ensure compliance with the comprehensive job safety briefing requirement of paragraph (b). This briefing must delineate the methods of communication to be employed between the locomotive engineer and the employee directing the movement, as well as the protocols for ensuring point protection—especially when a crossing must be protected. Additionally, the briefing must cover procedures for establishing and verifying that the track meets the “*track is clear*” criteria in 49 CFR 218.93. Each job briefing should include the identification and acknowledgment of passively protected grade crossings that will be encountered during the shove movement, any unique layout, weather or other environmental challenges to performing a visual assessment of approaching vehicular traffic, and the requirement not to enter those crossings until a complete visual assessment of each crossing is performed and it is determined that the “track is clear.”

2. Railroads should review (and update if necessary) all applicable operating rules to ensure they account for all necessary factors to be considered in determining whether the “track is clear” under 49 CFR 218.99. Recurrent training programs should

encompass clear definitions and identification of grade crossings equipped with only flashing lights or passive warning devices, emphasize the necessity of a complete visual assessment (including the specific elements and procedures it entails), as well as provide examples of unique grade crossing configurations, weather or other environmental challenges that may impede a visual assessment of approaching vehicular traffic, and outline the correct process for determining that the “track is clear.”

3. Railroads should review and evaluate existing operational testing data as required by 49 CFR 217.9(e) relevant to the operation of shoving or pushing movements over grade crossings. Railroads should identify crossings equipped with only flashing lights or passive warning devices in their territory, prioritize those crossings with unique crossing configurations or subject to weather or other environmental challenges that may impede a visual assessment of approaching vehicular traffic, and perform operational testing at selected locations. Railroads should consider varying crossing locations and operational testing times to help determine the actual level of proper point protection and “*track is clear*” rule compliance.

4. Railroads should implement a program to evaluate all crossings equipped only with flashing lights or passive warning devices to determine if it is feasible within the operating environment for an employee responsible for the safety of operations across the crossing to determine if the track is clear, taking account of obstructions, weather conditions and the ability of the employee to clearly see and timely communicate unsafe conditions, such as approaching traffic. Based on this evaluation, railroads should update operating rules and/or bulletins to require employees to be stationed at the grade crossing

to provide protection (i.e. stop and flag) where the evaluation determines it is not feasible for a riding employee to safely ascertain if the track is clear.

FRA encourages railroads to take actions consistent with the preceding recommendations. FRA may modify this Safety Advisory 2025-02, issue additional safety advisories, or take other appropriate action necessary to ensure the highest level of safety on the Nation's railroads, including pursuing other corrective measures under its rail safety authority.

Issued in Washington, DC.

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Chief Safety Officer.