

## SAFETY BULLETIN 2025-05

**SUBJECT:** Grade Crossing Fatality

The Federal Railroad Administration (FRA) is investigating a Union Pacific Railroad Company (UP) highway-rail grade crossing accident in Kane County, Illinois, that resulted in one fatality and two significant injuries to the occupants of a pick-up truck. The highway-rail grade crossing was equipped with gates and cantilever flashing lights, but these devices were not activated when the truck proceeded onto the crossing where it was hit by a six-axle light locomotive. Preliminary information indicates the train crew did not follow required operating rules for traversing highway-rail grade crossings when operating equipment without the minimum number of axles needed to reliably activate grade crossing warning systems.

A grade crossing warning system may fail for various reasons, including, for example, if rail equipment does not shunt the approach or island circuit, improper maintenance including leaving jumpers on relays, equipment failure, or if the required power sources fail. Failure to shunt, also termed loss of shunt, may be caused by multiple factors, including trains with a low number of axles, contaminants on the rail or wheel of the train (including leaves), condition of the rail including rust, and other conditions that cause poor wheel/rail contact. Railroads often have operating rules and/or maintenance plans in place to prevent loss of shunt.

This informal Safety Bulletin is intended to inform the railroad industry of this recent accident and encourage railroads to review this Safety Bulletin with their managers and employees to remind them of the critical importance of following operating rules and maintenance plans relating to loss of shunt and the proper operation of highway-rail grade crossing warning systems. Specifically, FRA reminds railroads to:

- 1. Ensure that all railroad operating employees are adequately trained on the actions to be taken to safeguard highway users, including reduced speed and stop/proceed requirements related to trains with a lower number of axles, and while approaching highway-rail grade crossing warning systems when loss of shunt is reported and/or observed.
- 2. Ensure that all railroad signal employees are adequately trained and fully understand the railroad's maintenance requirements for highway-rail grade crossing warning systems, including compliance with 49 CFR § 234.227 Train detection apparatus.
- 3. Ensure all railroad employees fully understand that when any essential component of a highway-rail grade crossing warning system fails to perform its intended function, the cause shall be determined, and the system repaired without undue delay.

FRA also reminds railroads that operating instructions to safeguard the public at locations known to have shunting issues are a stop gap safety measure and not a permanent solution, requiring corrective actions to repair the condition without undue delay.

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