

Statement of Karl Alexy, Associate Administrator for Railroad Safety, Chief Safety Officer  
Federal Railroad Administration  
U.S. Department of Transportation

Before the  
House Transportation and Infrastructure Committee  
Subcommittee on Railroads Pipelines, and Hazardous Materials

Tracking Toward Zero: Improving Grade Crossing Safety and Addressing Community Concerns

February 5, 2020

Chairman Lipinski, Ranking Member Crawford, and Members of the Committee,

Thank you for the opportunity to speak with you today regarding highway-rail grade crossing safety. The mission of FRA is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. As such, safety is FRA's top priority.

Railroads are a vital transportation link in our Nation's economy – transporting freight and passengers in a manner not achievable by other modes of transportation.

The safety of rail operations over highway-rail grade crossings and trespassing on railroad rights-of-way are two critical issues that FRA recognizes continue to impact and concern communities. As FRA Administrator Ronald Batory has previously discussed with this Committee, trespassing on railroad property is the leading cause of all rail-related deaths in the United States. Grade crossing incidents are the second. Together these types of accidents account for 97 percent of all fatalities along the nation's railroad rights-of-way. Over the past thirty years grade crossing fatalities have decreased by over sixty percent, but it is not enough.

FRA believes these accidents, and resulting injuries and fatalities are preventable. Thus, improving grade crossing safety and preventing trespassing on railroad rights-of-way are top priorities for FRA.

Grade crossing safety and trespassing prevention are separate and distinct issues, yet they share two common factors. First, both are singularly a function of human behavior. A motorist may decide to disregard active grade crossing warning devices at a highway-rail grade crossing and maneuver around lowered gates or past flashing lights and enter a crossing, or a pedestrian seeking a shortcut to a destination on the opposite side of a set of railroad tracks may cut across those tracks. In other cases, individuals are not sufficiently careful or may make poor judgements, or motorists may experience mechanical breakdowns or encounter physical obstructions when attempting to cross railroad tracks. Second, of the stakeholders - railroads, communities, individuals, and regulators -- none can solve these issues on its own. We need all stakeholders to take action to prioritize, prevent, and address these issues. Railroads need to be cognizant of how their operations affect the communities through which they operate. Local law enforcement officials need to prioritize, to the extent possible, enforcement of vehicle traffic signals at highway-rail grade crossings and trespassing laws, and strict prosecution of resulting citations. Individual community members need to be aware of the consequences of not complying with grade crossing warning signals or of trespassing on railroad rights-of-way.

As Administrator Batory shared in his June 2019 testimony to this Committee, FRA is focused on leading, promoting, and strengthening efforts among all stakeholders to increase awareness of grade crossing safety issues, the dangers of trespassing on railroad rights-of-way, and existing and potential trespassing prevention strategies. With our current focus, we are well underway with implementing FRA's [\*National Strategy to Prevent Trespassing on Railroad\*](#)

[Property](#) which FRA developed in 2018. More recently, in November 2019, FRA developed and began implementation of a [Highway-Rail Grade Crossing Safety Business Plan](#). These efforts are complementary and focus generally on five strategic areas:

- (1) Enhancing our collaborations with and outreach to all affected stakeholders;
- (2) Leveraging data to apply our resources most effectively;
- (3) Oversight and enforcement of the rail industry, and engagement of state and local governments, and law enforcement, particularly in trespass “hot-spots” or near accident-prone areas;
- (4) Supporting research designed to improve rail safety; and
- (5) Existing funding opportunities to support implementation of proven strategies and testing of new approaches and technologies.

FRA has worked to enhance the agency’s collaborations with and outreach to stakeholders on both grade crossing safety and trespass prevention issues through a series of listening sessions, summits, symposiums, targeted social media campaigns, and community site visits. FRA works with railroads, state and local governments, law enforcement officials, signal equipment manufacturers and technology companies, trade and advocacy groups, as well as DOT experts outside of FRA, to identify the most effective methods of improving grade crossing safety and preventing trespassing on railroad property.

FRA’s safety program has historically been and continues to be data-driven. Highway-rail grade crossing safety and trespassing prevention are no exceptions, but as I noted earlier, both issues are highly dependent not only on FRA data and actions, but on the involvement of all affected stakeholders. Accordingly, FRA has amplified its efforts to improve the quality of its data and to ensure data related to grade crossing safety and trespassing incidents is available and

accessible to all stakeholders. For example, FRA has created and maintains numerous data visualization tools (e.g., dashboards, maps) which enable the agency and our stakeholders to better monitor and analyze key safety metrics over time. Meanwhile, FRA is using analytical tools to gain a better understanding of factors affecting grade crossing safety and trespassing issues (e.g., from system-level overviews to localized detail). FRA is also seeking new and unconventional data sources and voluntary methods of sharing data among stakeholders to identify leading indicators of both grade crossing and trespassing risk factors.

Utilizing available data, FRA is identifying accident-prone areas and trespass “hot-spots” and engaging railroads operating in those areas, as well as the relevant state and local government and law enforcement officials, to seek potential local solutions to the risks.

The Grade Crossing Safety and Trespass Prevention research program conducts research to improve safety at highway-rail grade crossings and along the railroad rights-of-way. The program develops, tests, and evaluates technologies and engineering solutions, and collects and analyzes data to measure the effectiveness in improving grade crossing safety. FRA is currently supporting research in several technologies that have the potential to reduce grade crossing accidents, including GIS mapping, use of drones, in-vehicle auditory alerts, intelligent crossing assessment, and first responder blocked crossing notifications. The research outcomes, reports, and best practices will continue to be published on the FRA website and presented at industry related conferences and workshops. FRA currently uses an online research repository to store and maintain research reports and will introduce a search engine to facilitate access to these reports.

To complement FRA’s safety oversight and research initiatives, Secretary Elaine L. Chao and Administrator Batory have prioritized investment in grade crossing improvements through

the Department's various grant programs. Under this Administration, in addition to grade crossing formula funding administered by the Federal Highway Administration's Section 130 program, over 500 individual grade crossings have been made safer through FRA grant selections, most of this through the Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant program. The Department's Better Utilizing Investments to Leverage Development (BUILD) and Infrastructure for Rebuilding America (INFRA) grant programs have also provided significant investment in grade crossing safety nationwide.

Regarding trespassing, FRA issued two Notices of Funding Opportunities (NOFO) for law enforcement agencies to address railroad trespassing enforcement. In response to the first NOFO, FRA awarded almost \$200,000 to four law enforcement agencies. Preliminary findings demonstrate a significant reduction in trespassing incidents in these four local jurisdictions. Applications in response to the second NOFO are currently under review. Looking forward, FRA expects to make its fiscal year 2020 grant funding available to prospective applicants in the near future. We encourage your states and communities to apply for these forthcoming funding opportunities so they can work with FRA and continue to make grade crossings safer and reduce trespasser incidents.

### Trespassing Prevention

Trespassing on railroad property can be defined as accessing private railroad property anywhere other than at a designated pedestrian or roadway crossing. Trespassing on private railroad property is illegal and poses a grave threat to the individual trespasser's safety and to the safety of railroad employees. Although this is a matter of common sense, each year, more than 500 people are killed and nearly as many injured, while trespassing on railroad property.

Implementation of FRA's *National Trespassing Prevention Strategy* is well underway. To date, FRA has consistently achieved the milestones set forth in the *Strategy* and the agency will provide a specific update on its progress implementing the *Strategy* later this year.. To highlight some of the successes of the *Strategy* to date, I note:

- FRA field teams have conducted 171 trespassing site visits and outreach presentations since October of 2018.
- FRA developed a *Trespass and Suicide Dashboard* that allows users to visually interact with trespass and suicide data collected by FRA. The Dashboard is designed to provide key information to enable analysis of the data, including where trespassing incidents have occurred both nationally and locally, what railroads are involved in the trespassing incidents, and key factual details surrounding the trespassing incidents (e.g., trespasser age, day of week, time of day, physical act before casualty, and the event that caused the casualty). Although FRA's field teams use this information to evaluate local conditions and track overall trends, the dashboard is available online for all stakeholders to use.
- Regional FRA teams are working with individual communities identified as "hot-spots" for trespassing incidents to understand the root causes of the incidents and assist in the development of local solutions.
- FRA issued an approximately \$160,000 Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant to the Florida Department of Transportation to pilot drone technology, closed circuit television with remote monitoring, and a geographic information system spatial analysis to aid and leverage local law enforcement trespassing enforcement efforts.

- FRA has worked with the leaders of the 10-counties in the United States with the most trespassing incidents to participate in Railroad Trespassing and Grade Crossing Technology Summits throughout the country in 2020.

### Grade Crossing

Similar to trespassing, human behavior plays a primary role in grade crossing accidents. For example, a driver may choose to maneuver around lowered gates at an active crossing, or a driver may fail to look both ways to ensure the track is clear before attempting to cross a passive crossing (a passive crossing is a crossing with no train-activated warning devices).

Throughout the past year, FRA held a series of six grade crossing technology listening sessions. Those listening sessions involved a diverse range of stakeholders, including rail industry members, state and local governments (including law enforcement officials), trade and advocacy groups, as well as signal equipment and automobile manufacturers and technology companies, and culminated in a Grade Crossing Symposium in November, 2019. The Symposium provided a forum for all stakeholders to share what they learned during the listening sessions and collaborate on issues and experiences in implementing both low-tech and high-tech grade crossing solutions and best practices that have been successful on a local level to reduce grade crossing accidents as well as strategies for overcoming barrier to implementation and funding sources. FRA plans to continue this collaboration and outreach with stakeholders by holding additional grade crossing summits during 2020 to engage locally with stakeholders.

As I noted earlier, in November 2019, FRA issued its *Highway-Rail Grade Crossing Business Plan* as a complement to FRA's *Trespassing Prevention Strategy*. This *Business Plan* describes the actions FRA will take over the next three years to support the implementation of technology to improve grade crossing safety. The *Business Plan* outlines FRA's technological

approach to grade crossing safety and emphasizes FRA's continued desire to FRA to work with all stakeholders to discover new and innovative ways to use technology to mitigate and eliminate grade crossing collisions. FRA recognizes the costs to communities to implement technologies at grade crossings, and accordingly, one focus of the *Business Plan* is identifying available funding opportunities through existing programs at FRA and other DOT modes (e.g., the Federal Highway Administration).

In addition to developing the *Business Plan*, since Administrator Batory last testified before this Committee in June 2019, FRA has taken several additional actions to address and engage stakeholders in grade crossing safety issues, including actions to ensure the safety of railroad operations in quiet zones. Examples of these actions include:

- In November 2019, FRA published a notice of proposed rulemaking (NPRM) responding to the FAST Act's mandate to require 40 States and the District of Columbia to develop and implement highway-rail grade crossing action plans. Consistent with the statutory mandate, the NPRM also proposed to require the ten States previously required to develop highway-rail grade crossing actions plans to update their plans and submit reports to FRA describing the actions they have taken to implement them. FRA is currently reviewing comments received in response to the NPRM and anticipates publication of a Final Rule in the summer.
- Observing an increase in accidents at grade crossings within quiet zones, in December 2019, FRA wrote to all public authorities with quiet zones in which multiple accidents occurred in 2018 to remind those entities of the importance of ensuring their quiet zones comply with the conditions of approval. To ensure future compliance, FRA implemented a standard



operating procedure to inspect all established quiet zones (currently 907) on a three-year or less interval and to inspect newly established quiet zones within the first 60 days.

Additionally, the Risk Reduction and System Safety Program rules will require railroads to analyze how trespasser prevention technology and highway-rail grade crossing technology may help mitigate identified risks. Once these rules are published and implemented, FRA anticipates that the required analysis will provide railroads a framework for utilizing technology to combat risks associated with grade crossings and trespassers.

In addition to grade crossing safety and trespassing prevention, the FRA is engaged with the railroads and state and local officials to address the sometimes impactful effects of railroad operations on communities.

In May, noting an increase in the number of blocked crossing complaints FRA was receiving, Administrator Batory wrote to the Chief Executive Officers and senior leadership of the Class I railroads and major railroad holding companies regarding the impacts to quality of life associated with blocked crossings. Administrator Batory specifically requested that each railroad take action to minimize the occurrence of blocked crossings and redouble their efforts to work with states and local communities to advance the safety and efficiency of both railroad and highway transportation. In December, I wrote to all 736 railroads operating in the United States, reiterating Administrator Batory's requests.

On December 20, 2019 FRA launched a new online portal to collect data regarding the scope of blocked crossings issues across the country. The portal allows the public and public safety officials to submit reports of blocked crossings and specifically requests information on the location of the blocked crossing, and the time, duration, and impacts of the blocked crossing. This information will provide FRA with more standardized data on instances of blocked

crossings throughout the United States and FRA will analyze the data and publicly share it with all affected stakeholders to help inform the development of local solutions to reduce and prevent incidents of trains blocking crossings.

### **Conclusion**

FRA will continue to effectively implement its *National Strategy to Prevent Trespassing on Railroad Property* and carry out its *Highway-Rail Grade Crossing Safety Business Plan*. The agency remains committed to continuing to lead, promote, and strengthen efforts among all stakeholders to increase awareness of grade crossing safety issues, the potential consequences of trespassing on railroad rights-of-way, and existing and potential trespassing prevention strategies.