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**Before the House Committee Transportation and Infrastructure
Subcommittee on Railroads, Pipelines, and Hazardous Materials
U.S. House of Representatives**

**“Examining Freight Rail Safety”
June 14, 2022**

Chairman Payne, Ranking Member Crawford, and Members of the Subcommittee:

Thank you for the opportunity to testify today to discuss rail safety. The mission of the Federal Railroad Administration (FRA) is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future. Safety – including the safety of railroad employees, rail passengers, and the communities through which railroads operate – is FRA’s top priority. FRA carries out its mission in many ways, including through our broad regulatory enforcement and oversight program, accident and incident investigations, providing extensive technical assistance, scientific research, and data collection and analysis. We also engage and partner with both public and private stakeholders to identify and address critical safety issues that affect railroad operations, railroad employees, freight rail customers, the traveling public, and local communities.

Additionally, FRA administers a variety of discretionary grant programs. These programs have traditionally focused on funding to improve the condition and performance of rail infrastructure. However, with the passage of the Bipartisan Infrastructure Law (BIL), these programs now include dedicated federal funds to support the implementation of innovative solutions to deter and mitigate two longstanding and vexing rail safety issues – highway-rail grade crossing collisions and trespassing. The BIL also enables FRA to support the industry’s

workforce by making funds available for training and education, and for ensuring appropriate job protections for employees impacted by federally funded rail projects.

The BIL provides dedicated and sustained resources that enable FRA to continue to focus on its safety mission while broadening its efforts on its rail development and investment portfolio to offer safer and more convenient travel options for future generations. FRA recognizes that the BIL is an unprecedented investment in our country's intermodal transportation system, including freight and passenger rail which are integral to the national transportation system. It presents a unique opportunity for FRA and other stakeholders to make wise investments in critical infrastructure, technology, and human capital that will make it safer, more reliable, resilient, sustainable, and equitable. FRA is committed to using the BIL's resources to bolster and expand its existing safety programs, and where appropriate, to work with industry, labor, and others to develop and implement new and innovative solutions to address rail safety challenges.

Despite improvements in overall rail safety statistics elsewhere and the implementation of advanced technologies such as PTC, the number of grade crossing and trespassing incidents occurring over the last decade has increased – grade crossing collisions by 1% and trespassing casualties by 35%. Together these events account for more than 95% of all rail-related fatalities over the past decade. In addition, human-factor accidents remain a concern. FRA recognizes the opportunities the BIL presents to better enable the agency, and other stakeholders, to address these occurrences. Today, I would like to highlight our most significant regulatory and safety initiatives, including implementation of several key safety provisions of the BIL, and our strategy for ensuring BIL funding is appropriately directed to the most pressing rail safety issues. With this unprecedented investment in our Nation's rail system, it is now more critical than ever to ensure that we enable the industry's workforce to safely and efficiently operate and maintain

the current system while preparing for the future. Accordingly, I will also highlight a few of FRA's key workforce development efforts.

FRA's Priority Regulatory and Safety Initiatives

FRA's approach to safety is data-driven, risk-based, proactive, and collaborative. The full implementation of Positive Train Control (PTC) technology on all 57,536 required freight and passenger railroad route miles, has made railroad transportation safer. FRA will continue monitoring PTC, including software updates, training and integration into operations. With the issuance of its Risk Reduction Program (RRP) and System Safety Program (SSP) rules, railroads have been required to implement a comprehensive, system-oriented approach to improving safety. Although implementation of these rules is just beginning, they bring the tried-and-true principles of safety management systems to the rail industry. The rules require railroads to systematically identify, prioritize, and mitigate risks in their operating environment and to actively promote continuous safety improvement and strengthen safety culture.

Currently, all Class I railroads and passenger rail operations required to submit RRP and SSP plans have done so, and FRA is working with them and labor organizations to provide technical assistance to ensure the railroads successfully conducted appropriate consultation with directly affected employees during development of the plans. The consultation process of FRA's RRP and SSP rules, as well as the fatigue rule discussed below, requires engagement between railroads and directly affected employees at all stages of plan development and program implementation. To this end, and based on lessons learned from initial implementation of the RRP and SSP rules, in the upcoming weeks, FRA will provide written guidance on its expectations for the ongoing consultation requirements under each of these rules.

Even as industry works to identify and prioritize risk on individual railroad systems, FRA continues to work on regulatory initiatives mandated by Congress and to address known hazards on a broader basis. For example, in February of this year, FRA published a final rule implementing Congress's mandate to expand the scope of the agency's alcohol and drug control regulations to cover railroad mechanical employees. Soon, FRA expects to issue a final rule responsive to a Congressional mandate related to locomotive recording devices.

On June 13, 2022, FRA published a final rule addressing railroad employee fatigue. This rule responds to the same Congressional mandate as FRA's RRP and SSP rules and requires railroads to develop and implement Fatigue Risk Management Programs (FRMPs) as part of their larger risk reduction programs. FRMPs are railroad-specific, comprehensive safety programs involving the systematic identification and evaluation of fatigue-related safety hazards among railroad employees. Once the hazards are identified and evaluated, a railroad must take action to reduce, if not eliminate, the associated risks. Although the rule identifies the minimum categories of risk that a railroad must consider including in its FRMP (i.e., general health and medical conditions that may affect employees' fatigue levels, scheduling issues, and job-specific characteristics), the rule is results-oriented. Railroads' FRMPs must be designed and implemented to effectively reduce the fatigue experienced by employees and to reduce the probability of fatigue-related accidents and incidents.

As noted above, consistent with the requirements of FRA's RRP and SSP rules, the fatigue rule requires railroads to consult with directly affected employees during all stages of development and implementation of the required FRMP. Recognizing that fatigue is a complex issue, the rule is only one facet of FRA's ongoing efforts to address the issue. For example, FRA

recently conducted a survey of locomotive engineers and conductors to gain an in-depth understanding of the factors that contribute to fatigue and the resulting impacts on safety. Survey questions addressed potential contributing factors to fatigue, such as work schedules, commute times, and work/life balance. FRA will use the survey results to identify fatigue-related research needs and the survey's descriptive data will help FRA facilitate mutually beneficial solutions between railroad workers and management. Thus, even after issuance of this rule, FRA will continue to gather and analyze data to better understand the root causes of railroad employee fatigue and its effects on safety.

As required by the BIL, FRA will continue to work with both rail and labor stakeholders to identify parties willing to participate in a pilot project under 49 U.S.C. § 21109 to evaluate the fatigue implications of certain railroad employee scheduling practices. FRA will also continue to conduct fatigue analyses as part of its investigations of major rail accidents suspected of being human-factor caused. FRA will continue our review and analysis of railroads' attendance and other scheduling policies to ensure they do not conflict with the federal hours of service laws or otherwise adversely affect safety. Based on these ongoing efforts, FRA will take further actions it determines necessary and within its statutory authority to address issues associated with railroad employee fatigue.

FRA is developing a Notice of Proposed Rulemaking (NPRM) addressing train crew staffing safety requirements. The rule would address potential safety risks for train operations with fewer than two crew members. This proposed rule demonstrates FRA's belief that safety and innovation go hand-in-hand. Historically, technological advances have enabled a gradual reduction in the number of train crew members. Today, with certain exceptions, most trains are operated with two-person crews. As technology continues to advance and automation is on the

horizon, FRA intends this rule to serve as a tool to proactively address the potential safety impact of train operations with fewer than two crew members. The draft NPRM is currently under review with the Office of Management and Budget. Once issued, FRA looks forward to receiving and considering feedback from all stakeholders.

In terms of innovation, the Department has shared its innovations principles:

- Serve our policy priorities;
- Help America win the 21st century;
- Support workers;
- Allow for experimentation and learn from failure;
- Provide opportunities to collaborate; and
- Be flexible and adapt as technology changes.

Those principles are a roadmap for innovation. FRA looks forward to assessing proposals and efforts that reflect these principles.

Aside from these regulatory initiatives, with the rechartering of the Railroad Safety Advisory Committee (RSAC) in late 2021, FRA is refocusing its efforts to engage all stakeholders in the collaborative and consensus-based rulemaking process. The RSAC was first established more than a quarter century ago and provides a forum for the free and candid exchange of technical expertise and views. FRA believes open discussions and exchanges of data and ideas by all stakeholders, including railroad employees, industry, and government technical experts, are key to continued improvements in rail safety.

Not all safety advances are achieved through the regulatory process. FRA believes collaboration among all stakeholders is critical. For this reason, in April of this year, FRA held its first ever Track and Railroad Workplace Safety Symposium. Over 600 technical experts in

track safety and roadway workplace safety participated in the gathering, which provided a forum to discuss and share information and best practices related to track inspection, maintenance, and roadway worker protection.

Similarly, in the spirit of partnership and collaboration, FRA's Confidential Close Call Reporting System (C³RS) program enables railroad employees to report close calls and unsafe events and conditions without fear of reprisal or discipline. Root cause analysis is conducted on individual close calls, and collectively, safety hazards are identified. It is a voluntary program with 21 railroads (including passenger, commuter, and Class II and III freight railroads) representing nearly 27,000 safety-related railroad employees currently participating. Statistics show that over 75% of the close calls reported are events that would never have become known without the program. In 2021, the program launched the online Data Base Query Tool (DBQT). The DBQT is the Nation's largest repository of voluntarily-submitted railroad safety reports, each originating within FRA's C³RS program. All stakeholders can use the publicly-available reports to help improve safety through human factors research, education, training and similar efforts. Recognizing the value in the data generated from this program, FRA is currently working to expand the program to include Class I freight railroads and through a pilot program with the Short Line Safety Institute, FRA is working to encourage the participation of additional Class III railroads.

FRA also continues to improve its accident and incident investigation processes. These processes are designed to identify primary and contributing causes so future accidents can be prevented and also to identify local and industry-wide hazards, so that those hazards can be proactively mitigated. Given these goals, collecting accurate accident and incident data is

critical and FRA has renewed its focus on ensuring the accident and incident cause codes reported by railroads accurately reflect the facts of each accident or incident under investigation.

FRA's Implementation of Key BIL Safety Mandates

Along with the BIL's unprecedented federal investment in the Nation's rail network, the law requires FRA to take specific actions to improve railroad safety. In addition to the fatigue pilot studies I noted earlier, key safety provisions of the BIL require FRA to take the following actions:

- Establish a blocked crossing portal;
- Conduct a comprehensive rail safety review of Amtrak;
- Partner with the National Academies of Science (NAS) to conduct a study of the operation and safety of trains longer than 7,500 feet;
- Institute a system of audits of the training, qualification, and certification programs of railroad locomotive engineers and conductors; and
- Issue rules to enable high-speed rail service; and require pre-revenue service safety validation plans for certain railroads providing intercity or commuter rail passenger transportation.

Although FRA already had initiatives underway consistent with several of the BIL mandates prior to passage of the law, the BIL has served to renew and streamline FRA's focus on these efforts. For example, the BIL mandates that as a pilot program, FRA establish a blocked crossing portal to receive, store, and retrieve information regarding blocked highway-rail grade crossings. FRA's blocked crossing portal has been in place since late 2019 and FRA is currently working to update and improve it to comply with the BIL. In addition, on June 14,

2022, FRA issued a request for information so FRA can hear from communities how to design the tool in the most useful manner possible.

FRA's efforts to implement several of the BIL's rulemaking mandates are well underway. For example, FRA's current regulatory agenda includes rules responsive to the BIL's mandates related to high-speed rail operations, pre-revenue service safety validation plans for certain rail passenger operations, and rules proposing to incorporate into FRA's regulations several longstanding waivers from FRA's regulatory requirements.

In addition to the BIL, FRA has other safety efforts well underway in its day-to-day work. These are efforts that result in maintaining and improving rail safety. In 2021, FRA initiated a program of conducting periodic comprehensive system-wide safety audits of Class 1 railroads. To date, FRA has completed an audit of the Union Pacific Railroad Company and is currently in the process of auditing Norfolk Southern Railway Company. Within the next few months, FRA is planning to initiate the BIL-mandated comprehensive rail safety review of Amtrak as part of this existing program. Similarly, prior to passage of the BIL, FRA had an ongoing research program dedicated to the safety and operation of long trains. In response to BIL's mandate that FRA partner with the NAS on this issue, FRA has begun the process of sharing its ongoing work with the NAS to better inform the more extensive study the BIL mandates.

In early 2021, out of concern about some railroads' changes to their longstanding approaches to training under their FRA-approved operating crew certification programs and consistent with recommendations of the Department's Office of Inspector General, FRA began conducting more detailed reviews of railroads' operating crew training programs. Subsequently, in November 2021, I directed FRA's Office of Railroad Safety to begin a process of

comprehensively reviewing and auditing all railroads' conductor certification programs in response to accidents involving the severe on-duty injuries of railroad conductors, including three accidents in which railroad conductors were fatally injured.¹ Thus far, that review has found that some railroads' written programs do not conform with the regulation. FRA technical experts are working with the railroads to ensure that their programs conform with FRA regulations. The BIL mandate to audit these programs reinforces FRA's efforts in this area and FRA will begin the auditing process with the railroads' conforming written programs in place.

Strategies to Improve Grade Crossing Safety and Prevent Trespassing on Railroad

Property

FRA is working to identify innovative and non-traditional ways to enhance grade crossing safety and prevent illegal trespassing on railroad property. The agency continues to take a comprehensive approach to both issues, and although the Department recognized grade crossing safety in its 2021 Roadway Safety Strategy, neither the Department nor FRA alone can solve these issues. Collaboration with Departmental modal partners is key, as is collaboration and the empowerment of all stakeholders, including states, local communities, law enforcement, and others. For this reason, FRA continues to implement its *National Strategy to Prevent Trespassing on Railroad Property* and has launched the National High Risk Crossing Initiative. These efforts include conducting focused inspections, educational outreach, and partnering with

¹ The accidents involving fatal injuries occurred on both Class I and short line railroads as follows: BNSF Railway Company (March 3 and April 7, 2021); and WATCO Switching (October 29, 2021). Additionally, on December 2, 2021, a conductor for the R.J. Corman Railroad Company was fatally injured while on-duty.

local communities in places with the highest number of trespassing incidents and high-risk grade crossings.

FRA will continue this collaboration with other DOT operating administrations, local community leaders, law enforcement, railroads, and the public to identify and share best practices and local mitigation strategies. As part of these efforts, FRA is working to make all stakeholders aware of the funding opportunities presented by the BIL – including the new Railroad Crossing Elimination Program (RCEP) and the availability of Consolidated Rail Infrastructure and Safety Improvements (CRISI) funds not only for capital improvement projects, but projects addressing trespass prevention as well. Trespass enforcement activities were initially demonstrated and evaluated through FRA-funded research with DOT’s Volpe Center, and those results led directly to the creation of the successful dedicated funding program within CRISI.

FRA has conducted three outreach sessions on the RCEP, stressing the program’s ability to fund all types of grade crossing improvements, including grade separations, closures, and other actions to eliminate problematic crossings and providing potential applicants guidance on the application process. FRA expects to publish a Notice of Funding Opportunity (NOFO) for this program this summer.

FRA just announced the first round of CRISI awards since passage of the BIL. Notably, FRA awarded CRISI funds to 46 projects from 32 states and the District of Columbia, with approximately 49% of the funding going towards projects in rural areas, exceeding the BIL’s 25% percent set aside for such areas. FRA expects to release the FY22 CRISI NOFO – the first round of CRISI funding provided by the BIL – in late summer or early fall.²

² A full list of FRA BIL funding and program milestones, as well as a tentative calendar for future actions, is available at: <https://railroads.dot.gov/BIL>

The level of CRISI funding provided by the BIL will also allow FRA to invest in traditional, hard infrastructure safety projects, including track and bridge replacements, but also more new, innovative, and collaborative projects, such as the Rail Pulse project selected in FY20 CRISI funding cycle. The FRA will be working with PennDOT and the Rail Pulse Coalition members to develop a railcar onboard GPS sensor system to provide real-time information. If successful, this technology would not only result in more efficient and transparent freight rail shipping, but also provide safety enhancements and information such as sensors monitoring hand brake position and impact over certain speeds.

Focus on Enhancing Workforce Capacity and Development

FRA believes that with the unprecedented investment into our Nation's rail infrastructure the BIL provides and to support continued innovation and technological advancements, it is critical to ensure the industry's workforce is properly educated and trained. For this reason, FRA has renewed its focus on rail industry workforce development. For example, FRA recently published draft guidance for its grantees to ensure industry employees jobs are adequately protected from potential adverse impacts of federally funded rail projects. In addition, FRA's 2023 budget request outlines an FRA initiative to establish a Railroad Workforce Development program with dedicated funding within CRISI. Although workforce development and training projects have been eligible for CRISI funds since the passage of the FAST Act, FRA historically received very few applications. With that said, FRA was excited to recently announce two FY21 workforce development awards under CRISI. The first, for a railroad engineering program at Morgan State University, a historically black college and university (HBCU) in Baltimore, MD,

in collaboration with the University of Delaware. The second award is for an Amtrak pilot program for a three-year Mechanical Craft Workforce Development Apprenticeship Training Program, to take place in Los Angeles, CA; Chicago, IL; Beech Grove, IN; New York, NY; Wilmington, DE; and Washington DC. FRA believes that formalizing and dedicating funding to the program will spur additional interest in workforce development and training.

Additionally, FRA's 2023 budget request seeks funds to establish a National Railroad Institute. Learning from its modal partners, the Federal Highway Administration and the Federal Transit Administration, which both maintain training institutes, and with support of our colleagues at DOT's Volpe Center, the National Railroad Institute will develop and conduct training and education programs for both public- and private-sector railroad and allied industry employees. FRA envisions the Institute playing a crucial role in ensuring railroad workers develop and maintain the skillsets and tools necessary to succeed in the industry's rapidly evolving technological landscape.

In conclusion, FRA is committed to continuing to lead, promote, and strengthen efforts among all stakeholders to achieve meaningful and continuous improvements in rail transportation safety. FRA recognizes its responsibilities to the public, railroad employees, and the rail industry in general, to ensure the unprecedented investments the BIL is providing are used to make our Nation's freight and passenger rail systems safer, more reliable, more resilient, more sustainable, and more equitable than ever before. FRA is committed to meeting these responsibilities.