Testimony of Matthew K. Rose
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Surface Transportation and Merchant Marine Infrastructure, Safety and Security Subcommittee
"Moving America: Stakeholder Perspectives on our Multimodal Transportation and Infrastructure System"
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Introduction

Thank you Senator Fischer, Senator Booker and Members of the Subcommittee for the opportunity to submit testimony and appear before the Subcommittee to provide our perspective as a stakeholder in the U.S. supply chain. It is a privilege to discuss with you the challenges and opportunities that may affect our outlook. As we look at 2017, we see a time of change and uncertainty. As a railroad, understanding the future is critical; we make long-term decisions and it is crucial to match our capacity—manpower, track, equipment and facilities—with demand. If we have too little capacity, then we can suffer service issues, like those in 2013-2014, with which the Committee is familiar. If we overestimate and have too many assets, our ability to continue to make strong investments could be jeopardized, which also negatively impacts our customers, and the economy.

The U.S. supply chain is changing under our feet. The rail industry is going through a transition that is the largest we have seen in the twenty years that I have been in leadership at BNSF. It is being driven by shifts in the energy landscape, our customers' ever-changing supply chains, our competitors and, yes, public policy, such as how our nation's highway infrastructure is funded, and how railroads will be permitted to innovate. The railroad industry must become more efficient in order to remain competitive, and since we pay for our own infrastructure, we need a level playing field as we compete with other modes for freight. We ask that policymakers consider the public benefits that freight rail transportation provides—energy and environmental benefits, supply chain efficiencies, reduced highway congestion and maintenance costs—and how they are affected by public policy.

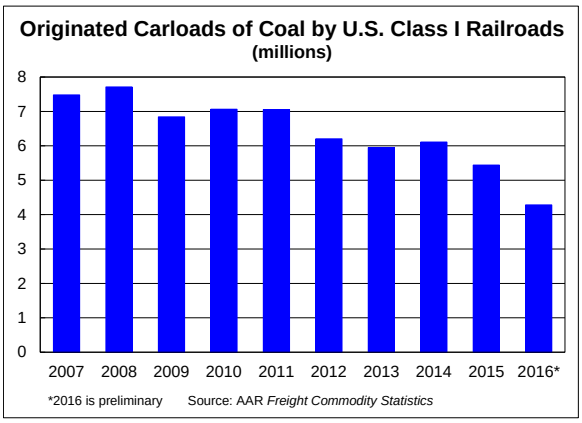
At the outset, I would like to commend this Committee on enactment of an extraordinary amount of good legislation related to railroads in the last Congress, including an extension of the Positive Train Control (PTC) implementation deadline, passing a range of railroad-related provisions in the Fixing America's Surface Transportation (FAST) Act, as well as reauthorizing the Surface Transportation Board (STB) for the first time since 1995. In this Congress, we look forward to working closely with the Committee on a proactive agenda that provides for updating and improving regulation and ensures that infrastructure investment and policy treats railroads equitably. BNSF and the freight rail industry hope to be a resource to the Committee as it addresses these important issues.

Economic Update and Outlook

Over the past five years, GDP has produced more than two percent growth, while rail volumes have declined by two-tenths of a percent due to a change in consumer buying habits, the service sector attracting a larger portion of GDP, and the decline in the coal sector. BNSF moved

more than 9.7 million units in 2016, half a million fewer units than in 2015, representing five percent decline in our total business. We experienced declines in three important commodities that are at the core of the railroad's business–energy, namely coal and crude oil, and international intermodal containers.

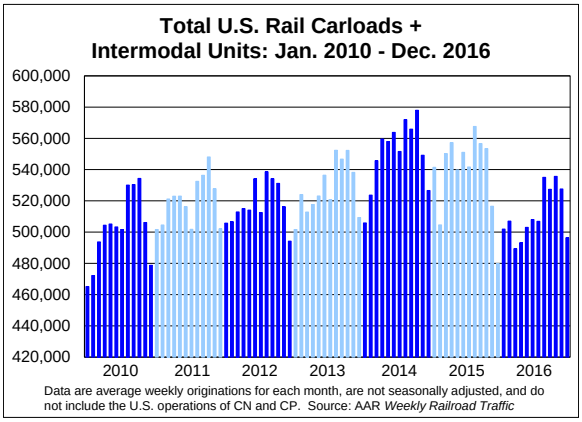
In 2016, BNSF handled about 480,000 fewer units of coal than in 2015, and finished the year with our lowest coal volumes since the Powder River Basin (PRB) mine expansion in 2002-2003. Our utility customers are in the midst of a long-term transition of their generation assets, moving away from coal and toward natural gas and renewables due to the low price and abundant supply of natural gas, regulatory pressures on coal, and tax policies that incentivize renewables.



The U.S. freight rail industry as a whole has experienced a similar trend related to coal. In 2008, the peak year for U.S. rail coal traffic, Class I railroads originated 7.5 million carloads of coal. In 2016, coal carloads totaled just 4.1 million carloads, or 3.4 million fewer carloads than in 2008. The revenues and profits lost by railroads because of coal's decline will be extremely difficult to replace. Many of railroads' coal assets have or will become "stranded," meaning their revenue-generating potential is lost or greatly reduced even though the costs of most of these assets will remain on railroads' balance sheets for years to come. The loss of railroads' coal traffic combined with the market volatility of other commodities hauled by railroads means that the market outlook for railroads has become inherently less stable. Typically, coal provided a base revenue load for many rail lines that helped keep costs down for other lines of traffic. For many rail lines, that base is gone.

BNSF's crude oil volumes declined with domestic U.S. oil production due to the long-term drop in the world price of oil and increased pipeline competition. In 2016, we handled almost 130,000 fewer units of crude than in 2015, which is a decline of about 40 percent.

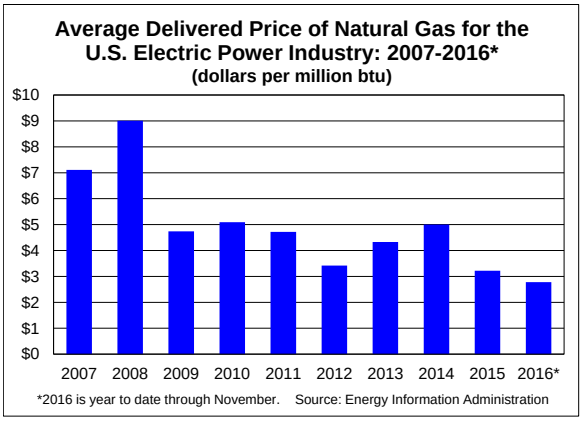
International intermodal volumes from west coast ports on BNSF were down by more than 60,000 units in 2016 as compared to 2015, and will continue to face headwinds, as volumes have been flat or down the past several years. Domestic intermodal continues to grow, but at a slower pace than we would like. Trucks are our customers and our competition. They have benefited from consistently low fuel prices and truck over-capacity which contributes to flat near-term forecasts for railroad domestic intermodal.



BNSF's primary area of growth was in the agricultural sector. The U.S. had record corn and soybean volumes in 2016 due to several factors, including strong harvests, but also due to Asian

buyers purchasing more U.S. corn when Brazilian supplies were reduced by summer droughts. This, in tandem with a stronger Brazilian currency, helped enhance U.S. corn and soybean export sales and also contributed to all-time record volumes and shuttle sales on BNSF in the fall. However, agriculture represents just ten percent of our annual volumes.

In general, rail volumes have been linked to the performance of the broader economy; when the economy is suffering, most rail traffic categories suffer too. However, it is less true now that when the economy does well, most segments of rail traffic do better. Rail volumes for commodities like grain and energy products often vary significantly year-to-year for reasons that have little to do with the state of the economy (e.g., the price of natural gas can have a big effect on coal volumes; droughts, exchange rates and worldwide weather patterns can affect grain volumes).



Consumers are changing their buying patterns. In recent years, changes in consumer spending have also reduced rail volumes as a larger percent of GDP moves to technology, like smart phones, and to services and entertainment. Consumer staples, such as clothing and household goods, appear to be moving down on the list of consumer spending, resulting in fewer containers of imported goods destined to the big box retailers. There will likely always be growth in freight volumes associated with consumer goods spending related to population growth, but the future may bring less of it than in previous cycles, and railroads must compete hard for every load. This means that the rail industry must continue to become ever more efficient.

At BNSF, and throughout the industry, our focus has been on reducing variable costs wherever possible, including shrinking the size of our active equipment and locomotive fleets to match volumes. Given the drop in volumes and the resulting financial impact, we also need to address fixed costs and ensure our workforce is sized to our needs. Unfortunately, non-seasonal furloughs of scheduled employees peaked at about 5,000 early in 2016; these numbers dropped to about 2,700 by the end of the year. In 2016, we also reduced salaried headcount by about nine percent and significantly restructured our operating teams. As we continue into 2017, our attention to cost control and efficiency across our operations will continue to be intense. We need to be able to continue to provide excellent service and invest where demand does exist. BNSF's infrastructure maintenance and investment remains strong relative to volumes and market demand and I believe our network has never been in better overall condition.

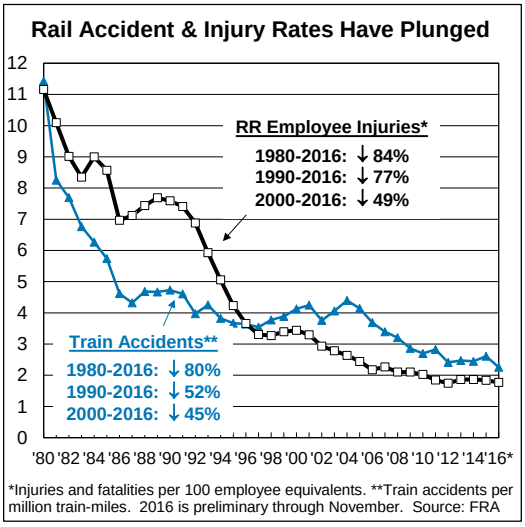
BNSF's business model is predicated on a "virtuous cycle," where we actively grow our markets and volumes, which allows us to continue to invest in and expand our system, improve our service, and continue to grow. We believe 2017 will be a better year but we will not grow past peak volume levels. Volumes have the potential to grow if policy changes stimulate the economy through corporate tax reform and infrastructure investment, as long as other policies

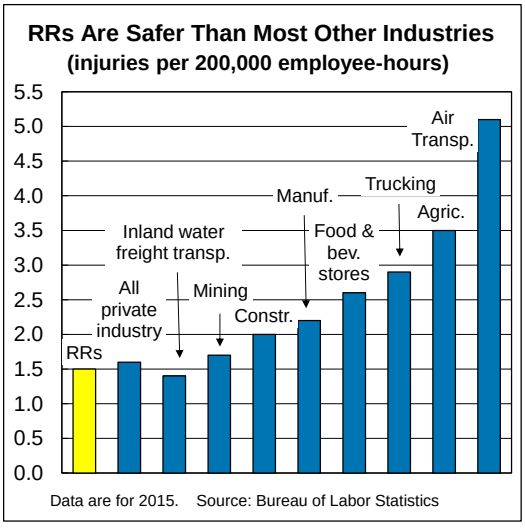
like trade—which impact roughly one-third of our economy's GDP—are still growth-oriented. Additionally, the rail industry is in final stages of labor negotiations. If a related work stoppage occurred, rail volumes would be impacted.

In sum, for railroads in 2017 and beyond, remaining competitive will require stringent attention to cost control in all areas of operation and continued significant levels of rail investment in infrastructure, equipment, and new technologies, consistent with the evolving business environment. Many of the operating practices and technologies being developed and used promote necessary efficiencies and increase safety.

Safety Overview

The laws of physics that make railroads the most efficient mode of surface transportation are also unforgiving; however railroading has been made incredibly safe. The industry's most recent safety statistics demonstrate the trend of continuous safety improvement. Preliminary Federal Railroad Administration (FRA) data indicates that the train accident rate in 2016 was down 80 percent from 1980 and down 45 percent from 2000; the employee injury rate in 2016 was down 84 percent from 1980 and down 49 percent from 2000; and the grade crossing collision rate in 2016 was down 80 percent from 1980 and down 40 percent from 2000. By all of these measures, recent years have been the safest in rail history.





At BNSF our safety vision is a workplace free of injuries and incidents. We believe that we can achieve this goal, and that is the reason safety continuously improves. But we have not yet achieved our vision; incidents and accidents do occur. However, we believe that they are outliers; operating safely every day is our normative behavior. We are committed to the work of continuous safety improvement, because derailments and other significant safety failures, which pose risks to employees and communities, are not an acceptable cost of doing business, nor are they morally acceptable.

In the freight rail industry, safe operations supported by the industry's continuous safety improvements are not achieved through just compliance with FRA regulations. It requires a comprehensive risk based safety program, many elements of which go well beyond federal mandates. And perhaps most importantly, it requires earning adequate revenues for the significant reinvestment necessary to safely operate the freight rail network and serve customers.

Railroad Technology and Operational Innovation

Technology has been an essential element of the improvements in safety seen by the rail industry over the last decade. In 2015, BNSF testified before the Subcommittee about the technologies being applied to railroad operations that allow us to detect safety standard deviations in real time so that we can respond before something happens. BNSF has increased the pace with which we install and utilize technologies, helping to transform the railroad's efficiency, while making it smarter and safer.

In 2016, reportable train incidents on BNSF were at historic lows, down 16.6 percent year-over-year, which reflects the increased leverage of data from our detector network to resolve issues before they become problems, as well as the effectiveness of our annual maintenance and on-going employee training and rules compliance programs. Derailments caused by human error, a significant subset of these incidents, also declined on BNSF in 2016. Below is a review of the technologies being implemented and developed on BNSF.

- Track Inspection:
  - Track geometry inspections employ high-speed laser and inertia test systems to collect track condition data on main line routes, a minimum of three times per year. Track geometry cars measure the track's surface under load for gauge, cross-level, alignment and vertical acceleration; data indicating any detected flaws is communicated to BNSF personnel for remediation.
  - BNSF utilizes a fleet of manned and unmanned track geometry cars, track measurement trucks and strength testing and reporting (STAR) cars to test several geometric parameters of the track.
  - Rail defect detection systems utilize ultrasonic technology to detect internal flaws in rail. Minimum intervals between inspections are determined by tonnage moved; heaviest traffic routes are inspected every 18 days.

- Mechanical Wayside Detectors:
  - Wheel temperature detectors, using infrared technology, are used to identify braking issues. BNSF currently has approximately 260 detectors located at over 190 sites along our network.
  - Acoustic and Hot Bearing Detectors are used to identify wheel bearing fatigue. On BNSF, there are over 1,200 hot bearing detectors and 16 permanent and 3 portable acoustic bearing detectors.
  - Machine Vision systems inspect freight cars for defects in passing trains at track speed with over ten different technologies used through 64 detectors on BNSF's network.

- BNSF is using Unmanned Aircraft Systems (UAS)—or drones—for supplemental visual track and bridge inspections in a variety of conditions. As part of the Federal Aviation Administration's (FAA) Pathfinder Program, we are a partner to the agency on developing rules, procedures and technology for extended range (beyond visual line of sight) track integrity flights. Since 2015, BNSF has expanded the use of both short range and long range aircraft as well as computer vision and data analytics to provide our engineering staff with bridge and structure change detections, track integrity analysis and yard measurement capability. In 2017, BNSF's UAS team (in partnership with the FAA), will continue to

expand our areas of long range flight research and enhancement of detection capabilities to include non-visual conditions.

- Train Operations and Control
  - As you know, the industry is engaged in installing PTC. BNSF will have the physical installation completed by 2017 and it will be operational by the 2018 deadline. We are currently operating PTC on 47 of the 90 mandated subdivisions and have already run PTC on over 200,000 trips and have trained over 22,000 employees.
  - BNSF is the largest user of energy management systems (Trip Optimizer or TO) with over 3,300 locomotives equipped. TO serves as an automated train operations control which was designed to reduce fuel use, and our carbon footprint, by requiring the most fuel-efficient operation of the locomotive. It also considerably reduces the potential for operating rules violations, particularly in a non-PTC environment.
  - Movement Planner (MP) is a tool in development that plans train operations and optimizes use of the network's capacity. Current computer aided dispatching is being augmented with a system to auto-route a train's most efficient movement, coordinate movements along a corridor, and provide for better human dispatch management. PTC will overlay MP, so that it can utilize real time location information. Ultimately, the integration of PTC, MP, and other planning tools will increase efficiency and visibility into train operations by operations and maintenance personnel.

These innovations demonstrate our commitment to leveraging technology in the continuous pursuit of more safe and efficient operations for our employees and the communities we serve.

Railroad Regulation Review and Improvement

It is well known to this Committee that, as one of the country's oldest industries, nearly every facet of the rail industry is governed by unique legal and regulatory schemes that have been developed over the last 130 years. Freight railroads' business interactions are governed by the Interstate Commerce Act. Our employees receive Railroad Retirement benefits instead of Social Security. Labor negotiations with unions representing our employees are governed by the Railway Labor Act. Railroads do not have insurance-based Workman's Compensation; instead, we operate under a nearly 110 year old statute called the Federal Employee Liability Act (FELA), established long before Workman's Compensation. FELA is a tort-based system that requires employees to litigate injury claims against railroads under a comparative fault system. Railroad operations are governed by the Federal Rail Safety Act and more than a century of design-based regulation where safety compliance can only be achieved by executing mandated step-by-step processes or activities against which regulators inspect and enforce.

There are very few exceptions to this "command and control" regulatory paradigm. Therefore, railroads are one of the most regulated industrial activities in the U.S. Between 2008 and 2013, Congress mandated 49 percent of all prescriptive, economically significant regulations that were promulgated by regulatory agencies. These mandates have been a product of Congressional action—and in recent years are a common "reaction" to an incident.

I attach to my testimony a 1982 Chicago Tribune article that demonstrates the process of regulatory change. It is about how the Class 1A 500 mile brake inspection standard, which was based on old steam engine stops was finally updated to a 1,000 mile brake inspection. It highlights for the Committee that the process for updating standards may have marginally changed, but not fundamentally. In 2017, notwithstanding the tremendous advances in locomotive, brake and detection technology, railroads have been unsuccessful in updating the brake inspection standard originally based on steam engine technology, which was last changed more than thirty years ago through negotiation with labor unions.

There are a multitude of internal and external incentives for railroads to operate safely, in addition to regulation, which is why railroads have well-developed risk management plans. As the railroad industry develops new technologies, they are overlaid upon railroads' existing regulatory compliance activities. We find that these activities in some cases no longer fit an operating environment increasingly supported by technology. At BNSF, our maintenance standards meet and even exceed FRA regulations. For example, BNSF inspects our densest lines both visually and technically at a rate at least twice the FRA requirement, in many ways rendering the prescriptive inspection activity requirements moot.

Advances in locomotives, signal systems, grade-crossing warning devices, and track inspection made possible by technology in some ways are marginalized for purposes of regulatory compliance because they exist outside of the current regulatory construct, which recognizes only the safety value of prescribed practices. Existing regulations which prescribe physical inspection at specific intervals for equipment and facilities now make less sense because of the advances in equipment, which is itself continuously self-diagnostic and self-reporting in the event of defects. Technology-based inspection can also reduce the safety exposures related to frequently putting people in, under and between equipment or out on the line of road to perform physical inspections for the same conditions. Technology-driven operational advancements, like electronic delivery of mandatory train orders and directives in lieu of required paper versions which will enable other technologies, should be incentivized.

Granting waivers is a measured approach to bridging past with present and help make regulatory evolution possible. The FRA's waiver authority is appropriately very broad. The regulations provide that, "the Secretary may waive compliance with any part of a regulation prescribed or order issued under this chapter if the waiver is in the public interest and consistent with railroad safety." Waivers represent industry and the regulator's best opportunity to modify FRA regulatory directives in light of changed circumstances, with appropriate regulatory oversight. However, implementation of the existing waiver process has been difficult and the timelines for even the simplest of waivers are measured in months or years, and quite often come with conditions that sub-optimize the value of the waiver or innovation being sought.

Waivers are important to allow the industry to demonstrate new technologies and practices that might—or might not—work to enhance safety. As the regulatory mandate to implement electronically controlled pneumatic (ECP) brake mandate demonstrates, some technologies are determined by the industry after demonstration to simply not be ready for prime time or could be disruptive if integrated into operations. Mandating a demonstrated technology after it has been shown to not be suitable for implementation will chill this kind of important

experimentation. Nonetheless, waivers help create common understanding between the regulator and the regulated about railroad operations, and waiver-generated data can lay the predicate for updating regulations.

New rules should only be adopted when the rule's benefits clearly outweigh its costs. The cost-benefit analysis process for imposing costly new mandates will rarely work when the industry is already so safe. Regulators recently have resorted to tortured cost-benefit calculations to justify proposed mandates. One of the most glaring examples, which required legislation by this Committee, was the recent ECP brake mandate where the FRA averaged the cost-benefit analysis across the tank car safety rule to justify mandating ECP brakes.

Neither Congress nor the FRA has taken a comprehensive look at the cumulative impact and effectiveness of the body of railroad regulations, or how they can be changed to reflect the current state of operations practices and ensure that they incentivize technology, or at least do not discourage it. We believe that regulation can be improved to take into account a railroad's safety record and their successful risk management activities.

Regulatory requirements for prescriptive activities is not the best way to improve safety if measuring safety outcomes can provide better incentives and flexibility. We believe that PTC is one of the best examples of how a technology mandate could have been more performance-based, which we believe could have achieved better safety outcomes sooner. As you may recall, the PTC regulations as originally adopted by the FRA had a cost of approximately $20 for every dollar of benefit. Had Congress and the FRA required performance standards for the types of incidents prevented by PTC, then railroads could have identified and implemented the best way to achieve those goals. This would have included PTC; in 2008, BNSF was in the process of implementing a version of PTC called Electronic Train Management System (ETMS). But given more flexibility to develop it, it could have been implemented in a more efficient and cost effective manner, possibly in tandem with some of the recent operationally beneficial technologies outlined, above.

Going forward, Congress needs to create a process that directs the FRA to, in more cases, embrace collaboration and transparency toward identifying the optimal performance targets and more formally aligning regulator and the regulated entities around incentives for continuous safety improvement. We believe that currently deployed and in-development safety and detector technologies combined with advanced data analytics has allowed us to achieve a level of safety that makes regulatory development and oversight of performance standards supportable.

There is a pending risk reduction regulation (FRA-2009-0038), required by Congress in the Rail Safety Improvement Act of 2008 which may have been, in fact, an effort by Congress to move the FRA towards a more performance-based regulatory paradigm. However, when the Congressional directive became a proposed rule by the FRA, the rule moved in the direction of imposing extensive reporting requirements, mandating risk reduction activities and applying regulation to technology innovations to prescribe design and maintenance requirements—all layered on top of existing mandates, and not in lieu of them. In the FRA's approach to implementation of this rule, railroads see detailed requirements for reporting their risk management plans, accompanied by related "paperwork violation" enforcement opportunities

without the tradeoff of performance based regulation. Furthermore, any requirement for detailed safety evaluation and risk management disclosures must be closely accompanied by information protections which railroads believe must be improved in this rule. If required railroad operational review and mitigation data is not protected, then the "lottery"-like recoveries we increasingly see in courts will impede innovation and even possibly challenge compliance.

Railroads, and the public for that matter, need forward-thinking federal railroad safety regulators and appropriate regulations. In a technologically and operationally complex and increasingly data-driven railroad industry, the existing "inspect and enforce" paradigm may not allow regulators to best understand the evolving technology-based railroad operating environment. Regulatory "reform" does not happen overnight, and it is especially hard when there are more than 100 years of how "it has always been done." But there is payoff, as well as a role, for all stakeholders involved in achieving near-, mid- and long-term goals for the Administration, Congress and the industry. A framework for that is outlined below.

Near-Term Goal—Improve the Waiver Process

- The Secretary of Transportation and FRA Administrator should review existing waivers, streamlining them as appropriate, and making some permanent in order to provide certainty to the industry and stakeholders. Typically waivers are granted for no longer than five years.
- Expeditiously consider and act on pending waivers, especially those that promote innovation, demonstrate technology or proof of concept, or allow operating practices that are more efficient and consistent with railroad safety, and promptly grant them when appropriate.
- The FRA should reform the process for granting new waivers with a focus on efficiency, prioritizing technology and collaboration.
    - Shorten the waiver review period to six months; the current process requires that waiver requests be presented to the FRA Safety Board which in turn has up to nine months to act on the request;
    - Conduct an ongoing evaluation of waivers to determine whether and how they become permanent rule changes consistent with their grant;
    - Include a railroad/industry representative on the FRA Safety Board, even as a non-voting member;
    - Prioritize waivers that provide technology demonstration;
    - Ensure that waivers are not conditioned with unreasonable or unrelated operating restrictions; and
    - Ensure that waiver reporting requirements are reasonable and related to helping achieve performance based regulatory treatment.

With process improvements, the FRA and railroads would be able to more quickly address and implement waiver applications, especially those demonstrating innovation and technology.

Mid-Term Objective—Regulatory Rationalization and Administrative Procedures Act Reform

Although prescriptive, activity-based regulation is likely to continue in certain areas, the rail industry's extraordinary safety record should allow for movement toward a balanced approach that also includes performance based regulation, with the goal of achieving greater

safety and operational benefits. As Congress reviews how railroads are regulated and considers needed improvements, the following guidelines should be kept in mind:

- Regulations should be based on a demonstrated need, as reflected in current and complete data and sound science. They should have a well-defined and measurable objective, and be regularly evaluated as to their effectiveness in achieving it.
- All components of an agency's decision-making should be transparent to the public and subject to meaningful analysis and comment before the rule is finalized.
- Non-prescriptive regulatory tools, like performance-based regulations, should be deployed wherever possible to align the interests of the regulator and the industry, and to foster and facilitate innovation to achieve well-defined policy goals.
- Regulations should provide benefits outweighing their costs, and the potential redundancies and general interplay with other existing regulations should be considered in every rulemaking.
- Use of "guidance" should be limited to appropriate situations and time periods.

While these comments are focused on the FRA, many of these principles can and should be adopted by all agencies with railroad oversight, like the STB.

Long-Term Objective—FRA Implementation of Performance Standards for Compliant Railroads

After creating a statutory framework that allows the FRA to develop performance based regulations, Congress should oversee FRA's progress in achieving it. The FRA should be empowered to set up a standard for identifying precursors to accidents. Specifically, the FRA could develop a targeted standard that is as safe, or safer, than current operations, and apply a different level of mandated requirements if the railroad met the standard. In that event, the FRA would maintain a broad review of a railroad's safety performance plan, including the railroad's track and equipment safety practices and technology, along with its operating practices such as training and employee engagement. Done correctly, regulation would incentivize railroads to achieve safety performance standards. Acknowledging that creating such a framework will be complex, we believe that it is possible and will benefit all stakeholders.

Infrastructure Investment and Policy

Modal Equity

There has been a lot of discussion about additional infrastructure investment on both sides of the aisle, but it is important to point out that during the last Congress, this Committee provided opportunities to the transportation community by helping to enact the FAST Act. Railroads supported the FAST Act. Except, that it was not entirely paid for by users, which I will discuss further.

While BNSF and the nation's Class I freight railroads are almost entirely funded with private capital, we have a strong vested interest in ensuring adequate investments are made in public infrastructure like ports and highways, which, when combined with rail, make up the nation's integrated freight supply chain. The U.S. has achieved today's efficient supply chain with each mode of transportation doing what it does best—railroads move freight long haul,

often in partnership with trucking company customers; trucks handle the bulk of shorter haul and local delivery; and ocean carriers, dock workers and freight owners all come together to help create an efficient intermodal freight transportation network.

In order to sustain a strong and efficient supply chain to handle future freight growth, we must all work to ensure the necessary capacity is in place across all modes. The investment looks a bit different for each stakeholder. For rail and BNSF, this means expanding our line haul and terminal capacity to keep trains moving and avoid congestion or delay. As rail volumes grew over the past 25 years, the industry invested a massive amount into infrastructure maintenance and expansion to create capacity. BNSF's recent investments are evidence of our commitment to increase capacity. In fact, since 2000, we have invested more than $55 billion in our network to ensure we are positioned to grow with our customers.

With respect to federally funded capacity investments in public road and bridge infrastructure, the U.S. has historically relied upon a "user pays" system, which until recently worked extremely well. However, the user pays model has experienced significant erosion as Highway Trust Fund (HTF) revenues, generated through fuel taxes and other static user fees, have failed to keep up with investment needs and have been supplemented with general taxpayer dollars and other non-traditional funding sources.

General fund transfers to the HTF, now totaling some $143 billion since 2008, amounts to more than three years' worth of non-user, or "free" taxpayer money for those who benefit from federal-aid highway programs, assuming FAST Act levels of budget authority. Further, the Congressional Budget Office (CBO) projects that under FAST Act funding levels the gap between dedicated surface transportation user-based revenues and spending will average $21.2 billion annually from fiscal year 2021 to 2026.

The heaviest of trucks already underpay their share of the wear and tear on federal highways. According to the U.S. Department of Transportation's Highway Cost Allocation Study released in 2000, 80,000-pound, five-axle combination trucks cover just 80 percent of the damage they cause to our highways; six-axle, 97,000-pound trucks cover just 50 percent of their cost responsibility; and trucks weighing more than 100,000 pounds cover only 40 percent. Underpayments on state taxes are also significant and are in addition to the federal underpayment. Recent studies suggest that, adjusted for inflation, the DOT findings mean that 80,000-pound trucks currently underpay their federal cost responsibility by around 27 cents per gallon of fuel. For some truck size and weight configurations, the federal underpayment could be as high as $1.17 per gallon. Many states already have exemptions to allow heavier trucks on state roads, and in recent years, a number of federal truck size and weight exemptions have passed, without any related increase in fees. Last Congress, the trucking industry supported an increase in the fuel tax.

Some of BNSF's biggest customers and valued supply chain partners are trucking companies, and they are also in many cases intense competitors. Railroads have a significant cost advantage over all-truck long-haul freight moves, but this is eroded by the ongoing infusions of General Funds into the HTF without appropriate increases in the fees, taxes and other charges paid by truck users of the infrastructure. As I like to say, if you subsidize something, you get

more of it. Moving away from the trucking industry paying its fair share in usage taxes will result in more trucks on the highway system and shifts modal equity from more fuel efficient and environmentally-friendly freight rail. Even public policy support for development and testing of truck automation could tilt the playing field away from intermodal freight rail, especially if railroads' own automation, both within facilities and along the line of road, is not also a public policy priority.

Congress should strengthen the "user pays" requirement. It could be done by increasing the fuel tax and/or moving toward a weight distance/vehicle-miles-traveled tax system for trucks. The FAST Act established the Surface Transportation System Funding Alternatives grant program to fund projects testing the design, implementation and acceptance of user-based alternative revenue mechanisms. The program has awarded over $14 million in grants to the following state transportation departments: California, Delaware, Hawaii, Minnesota, Missouri, Oregon and Washington. Congress should be aware of these and other opportunities for demonstrating ways to determine and assess a fair fee for commercial use of highway infrastructure.

Permitting Reform

Turning back to the FAST Act, there were many things to like, especially in terms of freight transportation policy. The law calls for development of a national freight strategy and prioritizes freight projects in a way no previous surface transportation authorization bill has. Below are highlights of the law from the railroad perspective, as well as additional recommendations where appropriate.

The FAST Act continued and expanded upon project delivery and permitting reforms enacted as part of the reauthorization bill's predecessor legislation, MAP-21. For example, FAST directs the DOT to review all previously enacted highway permit reforms and project streamlining procedures and apply them to railroad projects. The bill also expands on the types of rail projects that can be categorically excluded from extensive review requirements, and further mandates that the DOT, in consultation with the Advisory Council on Historic Preservation, create a process to mirror that of the federal highway system, which would exclude railroad rights-of-way from unnecessary historic reviews. Careful implementation of these reforms by the DOT and the Advisory Council on Historic Preservation will be important to ensuring that the intended benefits are fully realized.

While project delivery reforms at the federal level have been an important focus, improved permitting processes remain a critical need at all levels of government. Almost weekly, negative decisions from courts or permitting authorities at the local and state level demonstrate to BNSF and its customers that our growth, especially at origins and destinations, is limited by the inability to secure required permits. Over the past few years, facility expansion on the West Coast for both BNSF and our customers has been severely challenged by the regulatory process and environmental advocacy groups opposed to facility construction. These decisions effectively cut the rest of the U.S. off from valuable access to the Pacific Ocean.

In some cases, local permitting processes are used as a means to target and prevent interstate transportation, particularly of fossil fuels. Under the Interstate Commerce Commission

Termination Act (ICCTA), many state or local regulations are preempted with respect to rail transportation—including zoning and land use regulation, construction and environmental permitting of rail facilities and regulation of railroad operations. When it comes to interstate commerce, federal agencies, including the STB, must not be reluctant to intervene and provide clear direction that using such regulations to block these projects is preempted. Strong direction is necessary to ensure that important rail projects are not shelved or abandoned altogether, and that the flow of interstate commerce is not impeded. Additional permitting reform recommendations include:

- Statutorily prioritize project permitting for international commerce.
- Review the scope of state implementation of federal statutes to ensure consistency with federal regulators for projects in interstate commerce.
- Expand Federal Communications Commission regulatory streamlining to expedite the deployment of technologies that improve safety and efficiency in the railroad industry

FASTLANE and Other Grant Programs

The FAST Act provides dedicated freight funding both by formula to the states as well as through a competitive FASTLANE grant program for addressing critical freight needs including, among other things, intermodal connectors, port facilities, highway-rail grade separations and certain rail projects. Below are several examples of FASTLANE grant projects which demonstrate the intermodal significance of the program.

- The CREATE Project in Chicago makes improvements including grade separations along four rail corridors that handle passenger and freight traffic reducing train and vehicle delays throughout the Chicago area, the busiest rail hub in the country. A pending $160 million FASTLANE grant for the 75th Street Corridor Improvement Project will eliminate the most congested chokepoint in the Chicago Terminal, Belt Junction, where 30 Metra trains and 90 freight trains cross each other's path each day. In total, the CREATE partnership has committed $1.4 billion in funding for the Chicago Region's freight network.

- The Terminal Railroad Association of St. Louis's (TRRA) Merchants Bridge across the Mississippi River, which was originally constructed in 1890, requires replacement of the east approach and main spans, a $222 million project. The Missouri DOT has applied for a $75 million FASTLANE grant to help pay for an upgrade of the bridge's seismic resilience, as part of the project which will be otherwise funded by the TRRA. The bridge is one of the busiest rail bridges across the Mississippi River, facilitating Amtrak service as well as the efficient movement of freight.

- The Tennessee DOT has applied for an approximately $100 million FASTLANE grant as part of a more than $300 million project to improve critical roadway infrastructure in a key freight corridor through Memphis. Roadway capacity improvements in the corridor will benefit a large number of freight transportation companies and their customers, including helping facilitate efficient truck flows in and out of BNSF's Memphis intermodal facility, in which BNSF invested $200 million for expansion in 2010. The project will have significant

traffic congestion and delay savings, environmental benefits from improved vehicle flows and reduced idling, and improved roadway safety.

The FAST Act also importantly provided a funding increase for the Railway-Highway Crossings Program ("Section 130 program") from $230 million in 2017 to $245 million in 2020—funding that should be fully utilized by states but often is not. The Section 130 program provides apportioned funds to states for the elimination of hazards at highway grade crossings, with 50 percent of a state's apportionment dedicated to installation of protective devices at crossings and the remainder for any hazard elimination project. Section 130 is a critically important program, and while it does allow for some funding to go towards highway-rail grade separation projects, it does not come close to meeting the pressing needs that states and local governments have to increase funding toward projects that separate their roadways from railroad operations. The FAST Act prioritized grade separations in ways previous highway bills did not by making them eligible grade separation projects across multiple funding programs, but if the legislative opportunity to assist state and local governments with additional funding for this important roadway investment presents itself, railroads would continue to participate and support those projects.

As Congress considers additional infrastructure-related legislation, we believe the project grant eligibilities developed by Congress in the FAST Act provide an excellent framework. However, we also recommend that Congress consider providing additional funding for commuters and Amtrak to implement PTC, and to provide funding for track and other improvements on the Amtrak national route system.

Conclusion

I always like to remind Members of Congress about their important role in designing and paying for a transportation network to facilitate American competiveness. Many of the more than 150 million Americans who go to work every day rely on their employers to be able to compete in the global competitive marketplace. Congress provides federal funding for the highway network which is key to this ability for the American worker to compete. Our supply chain is also enormously blessed with the most efficient freight rail network in the world. This freight rail network participates in almost 40 percent of all of the intercity gross ton miles that move in our country. It is privately funded and Congress does not have to debate the funding levels for these networks because their maintenance, expansion and operations are fully paid for by the railroads. These well-maintained and efficient networks benefit our customers but these investments are also an important part of why railroads are setting new safety records. They also provide key public benefits by mitigating the impacts of highway congestion and wear and tear.

By increasing the cost of compliance, preventing efficiency or adequate returns through regulation, or creating a playing field that is not level for railroads vis-à-vis their competitors, Congress and the Administration "control the dial" on how much of the railroad industry's benefits we can afford to deliver. However, we know that Congress and especially this Committee understand the role of railroads in the economy, and in each of your states, and we appreciate that we are heard and able to remain engaged in dialogue with you about these issues and others related to strengthening freight movement in our nation.

Attachment

http://archives.chicagotribune.com/1982/01/10/page/67/article/ancient-rail-rules-getting-an-update

Chicago Tribune

Chicago Tribune, Sunday, January 10, 1982 Section 5 3

Ancient rail rules getting an update

By David Young
Transportation editor

THE FEDERAL agency in charge of railroad safety is making the first major revision of its rules since 1938 to eliminate outdated regulations, some from the early 1900.

Railroad officials claim many of these obsolete regulations add millions of dollars a year to operating costs.

The Federal Railroad Administration hopes to have the new rules in effect before year's end. The rewrite job has been one of the top priorities of Robert W. Blanchette, head of FRA.

ALTHOUGH THE changes of some rules have been considered since 1978, the current proposals were hammered out in meetings between railroad management and labor and then turned over to FRA.

A. William Johnston, operating vice president of the Association of American Railroads, and James Snyder, negotiator for the Railway Labor Executives Association, submitted their proposals as compromise rule changes to Blanchette Nov. 2.

Some changes can be administered by FRA, but others will require congressional action, Michael Chase, attorney for FRA working on the regulations, said.

AMONG MAJOR changes being considered are:

- Elimination of the requirement that freight train crews inspect the brakes of an entire train every 300 miles.
- Easing rules stipulating which railroad must repair minor safety defects on freight cars, thus speeding the movement of trains at interchange points between two railroads.
- Giving railroads greater flexibility on when and how they must repair track defects on little used branch lines and in yards.
- Upgrading of standards on such things as the spacing of railroad ties, gauge (distance between rails) of track, and type of devices used to fasten track to ties.

"THE RULES were revised to reflect the real world," Johnston said. "In the case of track standards, it will allow the railroads to better utilize their resources (track crews) instead of rushing around putting out brush fires."

Probably the single most important change will involve what is known as the "500-Mile Rule." The existing rule requires that each freight train be stopped after it has traveled 500 miles so that the crew can inspect the brakes.

Often, crews were required to stop trains, blocking crossings, only a few miles short of terminals so that the mandatory inspection could be made.

THE 500-MILE Rule, although it was adopted as a federal standard in 1962, has a history that dates from the 1880s. When railroad operating rules were revamped in 1920, it was required that such brake inspections as a train left a division or changed crews — often as short a distance as 125 miles — because steam locomotives were often changed at those points, FRA officials said.

"The divisions operated almost as independent railroads in those days and kept their own locomotives, one official said.

"Today, the railroads will run (diesel) locomotives for 1,500 miles from Chicago to Los Angeles before changing them."

The proposed new rule would make freight train brake inspections mandatory at 1,000-mile intervals.

THE RAILROAD industry has estimated that going to 1,000-mile inspections could save $ 325 million to $330 million a year.

Other proposed changes to what are known in the industry as the "power brake regulations" include a softening of standards required on inspections of braking equipment on individual cars, and the brake tests required on cars that have been sidetracked for other reasons.

Currently, brake testing is required on a sidetracked car before it's returned to service if the brakes haven't been tested in three months, even if the car's defects don't involve the braking system.

Officials estimate that as many as a million such tests are made every year, costing $45 each.

A requirement that crews inspect freight-train brakes every 500 miles is among the items that would be eliminated under a federal reform of railroad rules. Many of the rules date to the early part of the century.

ANOTHER rule change that is considered crucial is the handling of freight cars found to have defects while they are being transferred between railroads (interchanged). The rule now requires the receiving railroad to refuse to accept the car and fix the sending railroad to haul the car to its nearest repair shop.

That could involve breaking apart a 100-car freight train to remove the defective car, then shipping it back hundreds of miles to a maintenance shop, even though the receiving railroad had a shop only a few miles away.

"When you look at it, the regulation could actually have increased the risk (of an accident) by requiring a defective car to be shipped 100 miles although a maintenance shop was only a mile away," Chase said.

THE REVISED rule, which needs Congressional approval, will allow the defective car to the nearest repair shop.

The proposed regulations also would give railroads much more latitude than now in a variety of trackage conditions. Track defects are the second largest cause, after human error, of U.S. railroad accidents.

Although many of the changes are technical and involve updating the last quarter century, others critically affect the way railroads must maintain 200,000 miles of track.

POSSIBLY the most important is the creation of a new classification of track for little-used branch lines. (Railroad track is classified 1 through 6 according to its condition — class 6 being the best track and allowing the highest speeds.

Existing branch line track is now most commonly rated as Class-2, which permits trains to operate at no more than 10 miles an hour and requires a rail tie in good condition every 166 inches to hold the track in place.

The proposed regulation would create a new Class Zero with lower standards than the existing Class 1. The new class will be confined to use by passenger trains and only small shipments of hazardous materials. The new regulations also require five good ties every 39 years, instead of one every 166 inches.