

**Written Statement of
Joseph H. Boardman,
Administrator,
Federal Railroad Administration,
U.S. Department of Transportation
before
the Subcommittee on Railroads, Pipelines, and Hazardous Materials,
Committee on Transportation and Infrastructure,
U.S. House of Representatives**

May 8, 2007

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Chairwoman Brown, Ranking Member Shuster, and other Members of the Subcommittee, I am very pleased to be here today, on behalf of the Secretary of Transportation, to discuss proposed rail safety legislation.

In February, the Administration presented its rail safety reauthorization bill, the Federal Railroad Safety Accountability and Improvement Act. In March, House Committee Chairman Oberstar introduced the Administration bill, by request, for himself and Ranking Member Mica and the leaders of this Subcommittee. I would like to express the Federal Railroad Administration's (FRA) sincere appreciation to you and your colleagues for this assistance. Also in March, Senator Lautenberg, Chairman of the Senate Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security, introduced the Administration bill, by request, for himself and Senator Smith, Ranking Member of the Subcommittee, for which we are very grateful. The Administration bill has been designated as H.R. 1516 and S. 918, respectively.

In addition to proposing to reauthorize FRA's important safety mission, this bill calls for important—and in some cases historic—substantive changes in the rail safety laws that we expect will materially improve safety. These changes would significantly enhance FRA's wide-ranging efforts to implement the National Rail Safety Action Plan, which I will discuss below, and I look forward to working with you to help secure their enactment.

FRA also appreciates the efforts of the Committee in developing its rail safety reauthorization proposals in H.R. 2095, The Federal Railroad Safety Improvement Act of 2007. I look forward to working with you on these proposals as the legislative process moves forward.

THE NATIONAL RAIL SAFETY ACTION PLAN

As detailed in the appendix to my testimony, the railroad industry's overall safety record has improved dramatically over the past few decades, and most safety trends are

moving in the right direction. However, serious train accidents still occur, and the train accident rate has not shown substantive improvement in recent years. Moreover, several major freight and passenger train accidents in 2004 and 2005 (such as those at Macdona, Texas; Graniteville, South Carolina; and Glendale, California) raised specific concerns about railroad safety issues deserving government and industry attention.

As a result of these concerns, in May 2005, the U.S. Department of Transportation (DOT) and FRA, as the agency charged with carrying out the Federal railroad safety laws, initiated the National Rail Safety Action Plan (Action Plan), a comprehensive and methodical approach to address critical safety issues facing the railroad industry. The Action Plan's goals broadly stated are:

- Target the most frequent, highest-risk causes of train accidents;
- Focus FRA's oversight and inspection resources on areas of greatest concern; and
- Accelerate research efforts that have the potential to mitigate the largest risks.

As I have previously testified, the causes of train accidents are generally grouped into five categories: human factors; track and structures; equipment; signal and train control; and miscellaneous. From 2002 through 2006, the vast majority of train accidents resulted from human factor causes or track causes. Accordingly, human factors and track have been our primary focus to bring about further improvements in the train accident rate. Overall, the Action Plan includes initiatives intended to:

- Reduce train accidents caused by human factors;
- Address fatigue;
- Improve track safety;
- Enhance hazardous materials safety and emergency preparedness;
- Strengthen FRA's safety compliance program; and
- Improve highway-rail grade crossing safety.

In testimony before this Subcommittee in January, February, and March, FRA has detailed the substantial progress made in fulfilling Action Plan objectives, and the improvements that have been made. I will be glad to provide further updates to the Subcommittee concerning our ongoing safety initiatives. Given the topic of this hearing, however, I will focus my testimony on the Administration's safety bill and how we believe it will advance the Action Plan and FRA's overall safety program.

THE ADMINISTRATION'S RAIL SAFETY BILL

The Administration's rail safety reauthorization bill, the Federal Railroad Safety Accountability and Improvement Act, would reauthorize appropriations for FRA to carry out its rail safety mission for four years. FRA has made a full copy of the proposal

available on our web site at <http://www.fra.dot.gov/us/content/48>, including the supporting analysis for each section. Let me take this opportunity to discuss the major provisions of the Administration bill and how they will further FRA's safety efforts.

A. Authorizes Safety Risk Reduction Program and Protects Confidentiality of Risk Analyses Produced

In order to enhance the accountability of railroads in assuming full responsibility for their own safety, the bill would authorize appropriations for the addition of a safety risk reduction program to supplement FRA's current safety activities and seeks Congressional endorsement of this pilot program. Since rail-related accidents, injuries, and deaths are already at low levels, FRA needs to augment our traditional behavior-based and design-specification-based regulations with a robust safety risk reduction program to drive down those key measures of risk at a reasonable cost and in a practical manner.

In the safety context, a risk reduction program is intended to make sure that the systems by which railroads operate and maintain their properties are adequate to meet or exceed safety objectives. FRA continues to place greater emphasis on developing models of how railroads can systematically evaluate safety risks, in order to hold railroads more accountable for improving the safety of their operations, including implementing plans to eliminate or reduce the chance for workers to make mistakes that can lead to accidents or close calls. A safety risk reduction program could unify previous voluntary efforts in the human factors arena while extending similar techniques to management of risk in other arenas such as track safety.

To encourage railroads to produce thorough, as opposed to superficial, risk analyses, a companion provision in the bill would bar public disclosure by FRA of records required under the safety risk reduction program, except for Federal law enforcement purposes. Also in order to promote the preparation of serious risk analyses by railroads, the provision would forbid discovery by private litigants in civil litigation for damages of any information compiled or collected under the program, and would forbid admission into evidence of the same information in civil litigation by private parties for damages.

FRA is mindful that any restriction of public access to information may be controversial and requires careful scrutiny. However, we are convinced that assuring confidentiality is essential to promote full disclosure by the railroads and their employees to make such programs meaningful and bring about tangible improvements in safety.

B. Grants Rulemaking Authority over Hours of Service

Human factors cause more than a third of all train accidents, constituting the largest category of train accident causes. Fatigue is at least a contributing factor in one of

every four serious human factor train accidents. We believe that fatigued crewmembers have played an increasing role in railroad accidents over the past decade through poor judgment, miscommunication, inattentiveness, and failure to follow procedures. Our challenge is to ensure that crewmembers have adequate opportunity to rest, are free of disorders that can disrupt sleep, and are fully engaged in maintaining alertness.

The Subcommittee has recognized the deleterious effect that fatigue has on the safety of railroad operations, convening a hearing in February focused solely on this widespread problem. However, as I testified at that hearing, the statutory provisions that govern the hours of service of railroad train crews, dispatchers, and signal maintainers are antiquated—essentially a century old—and inadequate to address present realities. For example, under those laws, train crews may work eight hours on duty and eight hours off duty perpetually. Engineers and conductors often work 60 to 70 hours a week, and may be called to work during the day or night, which disrupts sleep patterns and reduces their ability to function.

Moreover, those laws contain no substantive rulemaking authority. The lack of regulatory authority over duty hours—authority that other DOT agencies have with respect to their modes of transportation—has precluded FRA from making use of scientific learning on this issue of sleep-wake cycles and fatigue-induced performance failures. Behavioral science has progressed to the point that computer models can accurately predict the likely effect of given sleep and rest patterns on employee performance. The models provide useful guidance to aid employee scheduling, and FRA published a validation report of one such model in 2006, as I testified in February. However, only the Union Pacific Railroad Company is making use of a sleep model to evaluate its own crew scheduling practices. Most railroads have yet to integrate use of such models in their operations and have refrained from making public commitments to use this capability in the future.

Further, over the past 15 years, the history of attempts by rail labor and management to improve fatigue management has not been marked by sustained progress, in part because rail labor organizations have a duty of fair representation that many of their members construe to include as maximizing earnings. Less hours worked is understood as less pay. There is, therefore, a market failure in connection with maximizing income that does not adequately protect the public or the safety interests of the employees themselves. Government needs to set an appropriate standard that ensures employees an adequate opportunity for rest, and labor and management should be free to work out the details regarding how that standard will be met through collective bargaining.

Madam Chairwoman, we recognize that the Committee will consider specific amendments to the law that might mitigate fatigue. Although FRA understands the frustrations that this issue has produced and the temptation to provide early relief, we believe that sincere attempts at short-term relief can also create constraints that may limit

the ability to provide optimal solutions downstream. Treating limbo time as on-duty time, for instance, would shift the law from a safety frame of reference to a “fair labor standards” frame of reference, force carriers to reduce the length of many assignments to avoid the possibility of “violations” under circumstances where safety could not be seriously compromised, and ensure that any further reforms would be very costly indeed. Hours of service issues are surprisingly complicated, and they need to be considered within the overall context of fatigue prevention and management. FRA is committed to progress in this area, but we need the regulatory authority to do it.

So we will continue to urge that the hours of service laws be replaced with flexible regulations based on a modern, scientific understanding of fatigue. Today, I am here asking for your support for legislation that will permit us to put into action what we have learned. The Administration bill first proposes to sunset the hours of service laws, but retain their protections as interim regulations embodying their substantive provisions. Next, the proposal calls for FRA, as the Secretary’s delegate, to review the problem of fatigue with the assistance of the Railroad Safety Advisory Committee, and to develop as necessary new, science-based requirements that can help us reduce human factor-caused accidents and casualties. We believe revised “benchmark” limits are needed on work hours, and requirements for rest periods, to provide simple guidance for fixed schedules, where that will suffice.

The bill would also authorize FRA to permit railroads to comply with an approved fatigue management plan as an alternative to complying with the “benchmark” limits” in the regulations. With the tools now available, we will be able to recognize fatigue management approaches that include careful evaluation of a wide variety of more flexible work schedules by validated techniques. In fact, we believe most safety-critical railroad employees would be protected by performance-based fatigue management programs that will enhance safety while holding down costs.

For public and employee safety, it is time to make a long-overdue change and provide us the rulemaking authority necessary to reform the hours of service laws and more effectively address the major cause of far too many train accidents.

C. Promotes Highway-Rail Grade Crossing Safety

Deaths in highway-rail grade crossing accidents are the second-leading category of fatalities associated with railroading, causing more than a third of all rail-related fatalities. (Trespasser fatalities are the leading category.) The number of grade crossing deaths has declined substantially and steadily in recent years. However, the growth in rail and motor vehicle traffic continues to present challenges. The bill seeks to prevent highway-rail grade crossing collisions and make crossings safer through two main provisions.

1. Requires Reports by Railroads and States to DOT on the Characteristics of Highway-Rail Grade Crossings

Currently, reporting to the DOT National Crossing Inventory is strictly voluntary. The bill would require that railroads and States provide the Secretary with current information regarding the country's approximately 280,000 highway-rail grade crossings. Mandatory reporting would make this unique national database more up to date and complete, which would help (i) States rank their crossings by risk and channel resources to the most dangerous crossings first, and (ii) DOT and transportation researchers identify the most promising ways to reduce crossing casualties. The bill would therefore require initial reports on all previously unreported crossings and periodic updates on all crossings. We appreciate action by the leadership of the Committee to include a very similar provision in H.R. 2095.

2. Fosters Introduction of New Technology to Improve Safety at Public Highway-Rail Grade Crossings

Fewer than half of the 140,000 public highway-rail grade crossings have active warning devices, which are expensive to install and maintain. Perversely, improvements at one crossing are often cited in tort actions to prove the inadequacy of protections at another crossing. Under the Administration bill, if the Secretary has approved a new technology to provide advance warning to highway users at a grade crossing, the Secretary's determination preempts any State law concerning the adequacy of the technology in providing the warning. FRA believes that this proposal would help encourage the creation and deployment of new, cost-effective technology at the Nation's approximately 80,000 public grade crossings that still lack active warning devices.

D. Expands FRA's Authority to Disqualify Individuals Unfit for Safety-Sensitive Service

Another provision of the bill would expand FRA's existing disqualification authority to cover individuals who are unfit for safety-sensitive service in the railroad industry because of a violation of the Hazardous Materials Regulations related to transporting hazardous material by rail. Currently, FRA may disqualify an individual only for a violation of the rail safety laws or regulations, not the Hazardous Materials Regulations, even though violation of the Hazardous Materials Regulations may involve a greater potential accident risk or consequence (in the event of an accident). This proposal would logically extend our disqualification authority over railroad employees and complement current initiatives to strengthen FRA's safety compliance program.

E. Protects Rail Safety Regulations from Legal Attack on the Ground that They Affect Security and Repeals Statutory Requirement for DHS to Consult with DOT when Issuing Security Rules that Affect Rail Safety

The bill would also bar legal challenges to DOT safety regulations on the basis that they affect rail security. Rail safety and security are intertwined, and part of the justification for certain DOT regulations is that they enhance rail security. The bill would clarify the scope of the Secretary's safety jurisdiction and help deter or quickly rebuff any challenge that DOT has exceeded its statutory authority in issuing such regulations.

Of course, the U.S. Department of Homeland Security (DHS) would continue to exercise primary responsibility for the promulgation of rail security regulations. In this regard, the bill would repeal the statutory provision that, when issuing security rules that affect rail safety, DHS must consult with DOT. We believe the provision is unnecessary and confusing in light of other statutes, executive orders, and existing inter-Departmental cooperation under the DOT-DHS Memorandum of Understanding and its related annexes on rail security.

F. Clarifies the Secretary's Authority to Issue Temporary Waivers of Rail Safety Regulations Related to Emergencies

The bill would clarify that FRA, as the Secretary's delegate, may grant a temporary waiver without prior notice and an opportunity for public comment and hearing, if the waiver is directly related to an emergency event or needed to aid in recovery efforts and it is in the public interest and consistent with railroad safety. While FRA's normal practice is to set aside time for public comment and hearing on waiver petitions, this appreciably slows down issuance of waivers necessary for emergency response and recovery efforts. Yet granting a waiver without such procedures risks legal challenge. The provision would free FRA from this dilemma and allow the agency to support emergency response and recovery efforts by dispensing with prior notice and an opportunity for comment and hearing, and by otherwise expediting the process for granting waivers. Further, the relief granted would be temporary (a maximum of nine months), and the normal waiver procedures would have to be followed to extend the temporary relief granted should doing so be necessary.

G. Authorizes the Monitoring of Railroad Radio Communications

Currently, FRA is permitted to monitor railroad radio communications only in the presence of an authorized sender or receiver, such as a railroad employee. Yet, when railroad employees know that FRA is present, they tend to be on their best safety behavior. Therefore, FRA cannot be sure whether the level of compliance observed is normal, and we are less able to identify what are, under ordinary circumstances, the most frequent and serious instances of noncompliance. Access to candid communications off site would yield a truer picture of compliance levels.

The bill would address this concern by letting FRA safety inspectors monitor and record railroads' radio communications over their dedicated frequencies outside of the presence of railroad personnel for the purpose of accident prevention (including accident investigation) and, with certain exceptions, to use the information received. The exceptions would be that the information (1) may generally not be used as direct evidence in any administrative or judicial proceeding, and (2) may not be released under the Freedom of Information Act. The information may, however, be used as background material for further investigation. Nor should there be concern that the information communicated is personal information. Railroad operating rules and procedures already require that all radio communications relate to railroad operations and prohibit railroad employees from using the radio for personal use.

As FRA's objective of accident prevention is ordinarily fulfilled daily by conducting safety inspections of railroad operations and enforcing the rail safety laws, monitoring of radio communications would not only help achieve that objective, but would greatly improve the efficiency of those inspections, the accuracy of the results, and the effective deployment of FRA's limited inspection resources based on those more accurate results.

We appreciate inclusion of a similar provision on radio monitoring in H.R. 2095, and look forward to working with the Committee on this matter.

H. Clarifies and Relaxes the Existing Statutory Provision on Moving Certain Defective Equipment for Repair

Finally, I would like to mention that the bill would amend a complicated statutory provision that states the conditions for hauling a railroad car or locomotive with a safety appliance or power brake defect for repair without civil penalty liability, including the requirement that equipment be back-hauled to the nearest available repair point. Back hauls required by statute can be both unsafe (because of the hazards related to switching a car out of one train and into another train), and inefficient (because the car is stopped from moving toward its destination and forced to go to a different place that is physically closer than the next forward point for repair). The proposal would allow the equipment to be moved to the next forward point of repair under clear regulatory safeguards for moving defective equipment that are more consistent with the movement-for-repair provisions applicable to vehicles with other types of defects, such as Freight Car Safety Standards defects.

Further, the bill would also define some key statutory terms and then provide FRA, as the Secretary's delegate, with rulemaking authority to define others. Currently, FRA may provide only guidance on the meaning of these terms, and this has contributed to an atmosphere of uncertainty about the requirements of the statute in day-to-day application. For example, FRA has received many complaints over the years that cars

have been hauled past a repair point that FRA does not consider to be a repair point. This proposal would, therefore, help dispel such uncertainty and promote understanding and compliance with the provisions governing the safe movement of equipment with a safety appliance or power brake defect.

I would like to emphasize that, while all of the provisions I have discussed are among the major provisions of the bill, there are other significant provisions I have not mentioned today that will also enhance rail safety. These include providing FRA rail security officers with greater access to Federal, State, and local law enforcement databases, officer-protection warning systems, and communications for the purpose of performing the Administrator's civil and administrative duties to promote safety, including security, and for other purposes authorized by law. All of these provisions are set forth in the bill the Secretary presented in February, and I would be glad to discuss any of them in detail with you.

III. Conclusion

FRA's approach to enhancing the safety of rail transportation is multifaceted. FRA personnel strive daily to implement the comprehensive initiatives for safety assurance and hazard mitigation under the National Rail Safety Action Plan to make rail operations safer for the public and the rail transportation industry.

The Administration's Federal Railroad Safety Accountability and Improvement Act would enable FRA not only to continue these efforts but to enhance safety in many other ways: such as by allowing FRA (1) to launch a safety risk reduction program that will make railroads more accountable for their safety performance; (2) to issue scientifically sound rules on hours of service that will reduce the fatigue of safety-critical employees; (3) to get vital, up-to-date data on all highway-rail crossings; (4) to foster the development of new crossing-safety technology; (5) to disqualify railroad personnel from safety-sensitive service based on their violation of the Hazardous Materials Regulations; (6) to protect rail safety regulations from legal challenge on the ground that they affect security and eliminate unnecessarily confusing statutory language; (7) to issue temporary waivers of rail safety regulations related to emergencies and emergency response efforts, without legal challenge on notice and comment grounds; (8) to monitor railroad radio communication to enhance FRA's compliance and accident prevention efforts; and (9) to make provisions for moving equipment with a safety appliance or power brake defect clearer and more consistent with similar FRA provisions.

I look forward to working with the Subcommittee and the Committee as a whole to bring about the enactment of these and the other provisions of the Administration's bill, and to help make our Nation's railroad system ever safer. Thank you.

The Railroad Industry's Safety Record

The railroad industry's overall safety record is very positive, and most safety trends are moving in the right direction. While not even a single death or injury is acceptable, progress is continually being made in the effort to improve railroad safety. This improvement is demonstrated by an analysis of the Federal Railroad Administration's (FRA) database of railroad reports of accidents and incidents that have occurred over the nearly three decades from 1978 through 2006. See 49 CFR part 225. (The worst year for rail safety in recent decades was 1978, and 2006 is the last complete year for which preliminary data are available.) Between 1978 and 2006, the total number of rail-related accidents and incidents has fallen from 90,653 to 12,940, an all-time low representing a decline of 86 percent. Between 1978 and 2006, total rail-related fatalities have declined from 1,646 to 913, a reduction of 44 percent. From 1978 to 2006, total employee cases (fatal and nonfatal) have dropped from 65,193 to 5,065, the record low; this represents a decline of 92 percent. In the same period, total employee deaths have fallen from 122 in 1978 to 16 in 2006, a decrease of 87 percent.

Contributing to this generally improving safety record has been a 74-percent decline in train accidents since 1978 (a total of 2,864 train accidents in 2006, compared to 10,991 in 1978), even though rail traffic has increased. (Total train-miles were up by 8.5 percent from 1978 to 2006.) In addition, the year 2006 saw only 28 train accidents out of the 2,834 reported in which a hazardous material was released, with a total of only 69 hazardous material cars releasing some amount of product, despite about 1.7 million movements of hazardous materials by rail.

In other words, over the last almost three decades, the number and rate of train accidents, total deaths arising from rail operations, employee fatalities and injuries, and hazardous materials releases all have fallen dramatically. In most categories, these improvements have been most rapid in the 1980s, and tapered off in the late 1990s. Causes of the improvements have included a much more profitable economic climate for freight railroads following deregulation in 1980 under the Staggers Act (which led to substantially greater investment in plant and equipment), enhanced safety awareness and safety program implementation on the part of railroads and their employees, and FRA's safety monitoring and standard setting (most of FRA's safety rules were issued during this period). In addition, rail remains an extremely safe mode of transportation for passengers. Since 1978, more than 11.2 billion passengers have traveled by rail, based on reports filed with FRA each month. The number of rail passengers has steadily increased over the years, and since 2000 has averaged more than 500 million per year. Although 12 passengers died in train collisions and derailments in 2005, none did in 2006. On a passenger-mile basis, with an average about 15.5 billion passenger-miles per year since the year 2000, rail travel is about as safe as scheduled airlines and intercity bus transportation and is far safer than private motor vehicle travel. Rail passenger accidents—while always to be avoided—have a very high passenger survival rate.

As indicated previously, not all of the major safety indicators are positive. Grade crossing and rail trespasser incidents continue to cause a large proportion of the deaths associated with railroading. Grade crossing and rail trespassing deaths accounted for 97 percent of the 913 total rail-related deaths in 2006. In recent years, rail trespasser deaths have replaced grade crossing fatalities as the largest category of rail-related deaths. In 2006, 525 persons died while on railroad property without authorization, and 365 persons lost their lives in grade crossing accidents. Further, significant train accidents continue to occur, and the train accident rate per million train-miles has not declined at an acceptable pace in recent years. It actually rose slightly in 2003 and 2004 (to 4.05 and 4.38, respectively) compared to that in 2002 (3.76), although it dropped in 2005 (to 4.1) and 2006 (to 3.54).

The causes of train accidents are generally grouped into five categories: human factors; track and structures; equipment; signal and train control; and miscellaneous. The great majority of train accidents are caused by human factors and track. In recent years, most of the serious events involving train collisions or derailments resulting in release of hazardous material, or harm to rail passengers, have resulted from human factor or track causes. Accordingly, the National Rail Safety Action Plan makes human factors and track the major target areas for improving the train accident rate.