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

For Release on Delivery
Expected at
2 p.m. EDT
Tuesday
May 8, 2007
CC-2007-052

Opportunities To Further Improve Railroad Safety

Statement of
Kurt W. Hyde
Assistant Inspector General
for Surface and Maritime Programs
U.S. Department of Transportation

Chairwoman Brown, Ranking Member Shuster, and Members of the Subcommittee:

We appreciate the opportunity to testify today as you consider legislation to reauthorize the Federal Railroad Safety Program. We commend this Subcommittee for its continued work in improving railroad safety. Improvements in safety are important because railroads transport people and freight over 790 million train miles annually—by way of 173,000 miles of track—and affect the lives of millions of Americans. Railroads employ about 232,000 workers and transport about 42 percent of the nation's freight. This industry will grow substantially in the future. The Department estimates that, between 1998 and 2020, the amount of freight transported by rail will increase by about 50 percent.

As we reported in our Fiscal Year 2007 Top Management Challenges issued to the Department, the Federal Railroad Administration (FRA) must continue implementing its safety initiatives since train accidents are on the rise overall. As the FRA Administrator noted before this Subcommittee in January 2007, the rail industry's safety record has improved, but a significant number of train accidents continue to occur and the train accident rate has not shown substantive improvement in recent years.

Chairwoman Brown, our testimony today will draw from the body of work we conducted over the last several years on grade crossing safety. At your request and the request of Representative James L. Oberstar and Senator Daniel K. Inouye, we conducted our most recent audit in response to congressional concerns about safety on the Nation's nearly 240,000 grade crossings. Yesterday, we released to the public our audit report that recommends steps FRA can take to better ensure compliance with mandatory reporting requirements and to address sight obstructions at grade crossings.[1] Our work on grade crossing safety also includes audit reports in 2005, 2004, and 1999 and testimony at several hearings, including the Inspector General's testimony in January of this year before this Subcommittee. Taken together, our reports and testimonies represent a comprehensive assessment of grade crossing safety issues and resulted in recommendations for further enhancements to rail safety. FRA has responded positively to the recommendations in our reports on grade crossing safety. See Attachment 1 for a list of our grade crossing safety reports and testimonies.

FRA has also taken several actions to improve rail safety overall. For example, in February 2005, we recommended that FRA submit to the Secretary a comprehensive plan for implementing a fully functioning program that makes

---

[1] OIG Report No. MH-2007-044, "The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety By Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions," May 3, 2007. OIG reports can be accessed on our website at *www.oig.dot.gov*.

meaningful use of analysis of available safety, inspection, and enforcement data.[2] To this end, FRA instituted the National Inspection Plan, an inspection and allocation program that uses predictive indicators to assist FRA in allocating inspection and enforcement activities within a given region by railroad and by state. This is a step in the right direction, but since the plan was implemented only in March 2006, it is too soon to tell exactly how effective these measures will be in the long term.

In May 2005, then Secretary Norman Mineta announced the National Rail Safety Action Plan. This plan outlined FRA's strategy for focusing oversight and inspection resources on areas of greatest concern, targeting the most frequent and highest risk causes of train accidents, and accelerating research with the best potential to mitigate such risks. In addition to the actions in the plan, FRA reports that its inspectors conduct thousands of inspections each year and engage in a range of educational outreach activities on railroad safety issues.

Despite FRA's efforts and recent improvements in the safety record of the rail industry, serious train accidents continue to occur. The collision rate in recent years has not slowed markedly. Train accidents increased by 31 percent overall between 1995 and 2005. Further, while the industry's record for transporting hazardous materials has been good, nearly 1.7 million carloads of hazardous materials[3] are transported by rail in the United States each year. The catastrophic consequences that can arise due to the release of hazardous materials from rail cars are a significant threat to safety. From 2003 through 2006, the railroads reported 145 rail incidents that involved hazardous materials, resulting in 19 fatalities and 423 injuries. These incidents resulted in the evacuation of 17,384 people from their homes and businesses, caused at least $17 million in track damages, and resulted in about $71 million in equipment damages.

Grade crossing safety is central to rail safety; that is, enhancements to this one vulnerable area can have a tremendous, positive impact on overall rail safety. The second highest percentage of rail-related *fatalities*—42 percent from 1995 through 2005—is due to collisions at grade crossings.[4] During this 10-year period, collisions and fatalities at grade crossings were significantly reduced, by 34 percent and 38 percent, respectively. Most recently, however, these numbers have increased. From 2003 to 2005, collisions rose by 2 percent and the number of fatalities jumped by 7 percent.

---

[2] Memorandum to the Acting Federal Railroad Administrator, "Safety-Related Findings and Recommendations," February 16, 2005.

[3] The Department of Transportation has classified about 3,500 materials as hazardous, ranging from mild irritants to those that are poisonous and radioactive.

[4] Trespassing fatalities is the leading category of rail-related fatalities for that period, accounting for 52 percent. Our 1999 report discusses the challenge of reducing trespassing fatalities.

Today, I would like to discuss five actions that railroads and FRA can take to reduce grade crossing collisions and fatalities. These are areas on which you may wish to focus as you evaluate current legislative proposals.

1. Ensuring Compliance With Mandatory Reporting Requirements

Railroads are charged with two distinct reporting requirements when a grade crossing collision occurs. First, an immediate call to the National Response Center (NRC[5]) is required for all serious[6] grade crossing collisions. (The National Transportation Safety Board defines "immediate" as within 2 hours.) This call helps FRA determine whether a Federal investigation is needed at the accident scene. Second, within 30 days of the end of the month in which collisions occurred, the railroad is required to report *every* grade crossing collision to FRA—not just the collisions that are deemed "serious." More can be done to ensure compliance with both of these reporting requirements.

Between May 1, 2003 and December 31, 2004, railroads failed to notify NRC immediately in 115 of 543 reportable grade crossing collisions (21 percent) as required; most of these involved fatalities or multiple injuries. Although these unreported crossing collisions, which resulted in a total of 116 deaths, were reported to FRA within 30 to 60 days after the collisions, that was too late to allow Federal authorities to promptly decide whether or not to conduct an investigation. In March 2005, FRA officials began issuing violations to railroads that failed to follow FRA's criteria for reporting grade crossing collisions to NRC. This enforcement effort needs to be sustained to ensure that railroads properly report all grade crossing collisions involving a fatality, serious injury, or substantial property damage.

As stated in our report released yesterday, 12 railroads failed to report 139 collisions to FRA as required within 30 days after the end of the month in which the collision occurred—with some being reported nearly 3 years late. These collisions, which occurred between 1999 and 2004, resulted in 2 fatalities and 20 injuries, as ultimately reported by the railroads. While these numbers may not seem large, it is unknown how many additional unreported collisions exist. Because FRA did not routinely review grade crossing collision records maintained by the railroads to ensure compliance with these requirements, it does not know whether the 15,416 grade crossing collisions reported by railroads between 2001 and 2005 included all collisions that occurred during those years.

---

[5] Part of the Department of Homeland Security, NRC is the Federal Government's 24-hour point of contact for environmental discharges. In addition, through agreements, NRC notifies FRA and other Federal agencies of train accidents and grade crossing collisions.

[6] FRA's criteria for immediately reporting grade crossing collisions to NRC—"serious" collisions—include those with one fatality or five injuries, as well as other criteria.

Accurate, timely, and complete reporting of grade crossing collisions serves the important purpose of identifying safety problems so appropriate corrective actions can be taken. Further, by ensuring that every grade crossing collision is reported on time, FRA and states will have access to critical data for identifying dangerous grade crossings and emerging accident trends. Complete information on grade crossing collisions is also essential for state transportation officials who must decide where to spend Federal funds set aside annually for crossing safety improvements. Under the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) for Fiscal Years 2005 through 2009, states can spend $220 million each year for grade crossing safety improvements, such as automatic gates and flashing lights and hazard elimination projects.[7]

When previously unreported grade crossing collisions are reported to FRA, states have better information to use in making decisions. For example, after written reports for five unreported grade crossing collisions in Iowa were submitted to FRA, the Iowa Department of Transportation used the information provided by the railroads as the basis for allocating funds for safety improvements at two grade crossings. If those unreported collisions had not been identified, it is likely that safety improvements would not have been made to these two dangerous crossings.

In our recent report, we recommended that FRA strengthen safety oversight by ensuring that the railroads comply with mandatory requirements to report each grade crossing collision to FRA's accident reporting system by:

a. Developing and implementing an action plan for conducting periodic reviews of the grade crossing collision records maintained by each railroad, including promptly notifying the responsible railroads when unreported collisions are identified.

b. Testing random samples of the railroads' grade crossing collision reports to determine whether the information is accurate, timely, and complete, including comparing such reports to those generated by local law enforcement agencies.

c. Issuing a violation and assessing a civil penalty *each* time a railroad fails to submit a grade crossing collision report in accordance with Federal requirements, on a consistent basis. Moreover, FRA should assess higher civil penalties against each railroad that repeatedly fails to report crossing collisions.

---

[7] States are also authorized to spend these funds on hazard elimination projects, such as crossing closures.

In response to our report, FRA stated that it had begun to implement an action plan for conducting cyclical reviews of highway-rail grade crossing accident reporting by the major railroads. These reviews are intended to determine whether grade crossing collisions are being properly reported. FRA also agreed to make obligatory the submission of violation reports for each detected violation that is a clear-cut failure to report.[8] It will be important for FRA to follow through on its commitments, as planned. You may want to consider directing FRA to report annually on its cyclical reviews, including the number of reviews planned, the number completed, and the overall results of the reviews.

2. Increasing FRA's Involvement in Grade Crossing Collision Investigations

With a current inspector workforce of 385, FRA has limited capability to investigate approximately 3,000 grade crossing collisions that occur each year. Instead, it places heavy reliance on railroad self-reporting. As we recommended in our November 2005 audit report, FRA needs to broaden its review of such reports with independent information. FRA uses accident reports received from the railroads to evaluate the circumstances, probable causes, and responsible parties for most grade crossing collisions. A variety of sources, such as police reports, event recorder data, and eyewitness accounts, could be used to provide additional insight. This should help boost public confidence in that accident data are being obtained from sources other than just the railroad(s) involved.

FRA increased the number of grade crossing collision investigations during the last 2 years. However, FRA still investigates less than 1 percent of all grade crossing collisions, a fact that highlights the need for independent verification of railroad-supplied information. The need for this increased involvement is shown by the fact that, on average, one person dies and three people are injured in the United States every day in grade crossing collisions.

To better evaluate the causes of collisions and railroads' compliance with Federal safety regulations, we recommended that FRA use a pilot program to collect and analyze independent information on crossing collisions from railroads and local or state law enforcement agencies. FRA concurred with our 2005 recommendation and implemented a 1-year pilot study comprising one state from each of its eight regions. The objective of this study was to assess the benefits and costs of analyzing information from independent sources on crossing collisions, such as police reports and locomotive event recorder data, to resolve conflicts. While the

---

[8] A clear-cut failure to report is defined by FRA as one that does not involve any question with regard to interpretation of the regulation or sufficiency of the facts constituting the alleged failure.

pilot study was scheduled for completion last month, FRA has yet to issue the results. FRA should report the results of the study as soon as possible and provide a copy of its report to this Subcommittee.

3. Addressing Sight Obstructions at Grade Crossings Without Automated Warning Devices

Active warning devices—such as automatic gates and flashing lights—call attention to approaching trains at some grade crossings. However, 76,000 public grade crossings are equipped only with passive warnings, such as crossbucks, stop signs, and pavement markings that advise motorists of the presence of the crossing, but don't warn them when a train is approaching. For these passive grade crossings, greater attention is needed to ensure that motorists have a full view of approaching trains so that they can determine when it is safe to cross. Sight obstructions such as overgrown vegetation contribute to grade crossing collisions. As illustrated in Figure 1, vegetation growth at grade crossings can significantly reduce a motorist's ability to see the track and approaching trains. From 2001 through 2005, railroads submitted 689 collision reports to FRA that documented such obstructions—242 people were injured in these collisions and 87 died.

Figure 1. Photographs of Highway Users' Line of Sight at a Grade Crossing Before and After Vegetation Was Cleared

Highway Users' View Before Clearing Vegetation

Highway Users' View After Clearing Vegetation

Source: Illinois Commerce Commission*

*The State of Illinois requires every rail carrier to remove all brush, shrubbery, and trees from its right-of-way for a distance of at least 500 feet in either direction of a grade crossing.

Currently, FRA regulations only require the railroads to address vegetation growth at public crossings and only to the extent that the vegetation reduces the visibility of road signs and signals. FRA regulations do not address other types of sight

obstructions, such as permanent structures, standing railroad equipment, and topography. As of March of this year, only 13 states had laws or regulations addressing all types of sight obstructions. These laws vary widely, with mandated sight distances ranging from 40 feet along the railroad property line to as much as 1,500 feet in both directions along the railroad right-of-way.

For the 37 states that lack laws or regulations for addressing sight obstructions at grade crossings that are not protected with automated warning devices, more needs to be done. Immediate safety benefits could be achieved if laws were established to address all types of sight obstructions, such as structures that block highway users' views of approaching trains and overgrown vegetation.

FRA agreed to play a constructive role as part of the larger intermodal and intergovernmental grade crossing team in response to our recommendation to develop model legislation. Such legislation is needed for states to improve safety by addressing sight obstructions at grade crossings that are equipped solely with signs, pavement markings, and other passive warnings. However, in responding to our recommendation, FRA also stated that it ". . . does not have general authority or responsibility for grade crossing safety." The Subcommittee should consider whether it wishes to strengthen FRA's role with respect to grade crossing safety.

4. Establishing Reporting Requirements for FRA's National Grade Crossing Inventory System

The accuracy and completeness of FRA's national grade crossing inventory, particularly the identification of all public grade crossings and the types of warning devices in place, can be improved through the establishment of mandatory reporting requirements for railroads and states. This action is needed to better monitor and improve high-risk crossings. In our June 2004 report on the Highway-Rail Grade Crossing Safety Program, we recommended that FRA establish mandatory reporting requirements through rulemaking or legislation to improve the accuracy and completeness of its national grade crossing inventory data. These data are used by state officials to develop priority lists of public crossings that need safety improvements because they have a high probability of collisions. However, mandatory reporting requirements have not been established. Our analysis of FRA's national grade crossing inventory system found that 36 percent of public grade crossing records have not been updated since 2000.

Mandatory reporting is even more important under SAFETEA-LU, which changed the apportionment procedures. SAFETEA-LU requires that 50 percent of the $220 million authorized be apportioned to the states for grade crossing safety improvements based on a ratio of the number of public grade crossings in a state to the number of public crossings nationwide. Our 2004 audit report stated that

targeting safety strategies on state and public grade crossings that continue to have the most collisions is key to further reducing collisions and fatalities.

Voluntary reporting of grade crossing inventory information has not been successful. To ensure that accurate and complete inventory data are available for use in making decisions about grade crossing safety improvements, the Subcommittee may wish to consider directing FRA and the Federal Highway Administration to establish and enforce mandatory reporting requirements for railroads and states.

5. Requiring States With the Most Dangerous Grade Crossings to Develop Action Plans

In our June 2004 report, we recommended that FRA identify states having the most grade crossing accidents year after year—particularly at crossings that have experienced multiple accidents—and develop, with these states, an action plan identifying specific solutions for improvement. Attachment 2 to our testimony today is a map of the United States showing the number of collisions and fatalities at grade crossings, by state, in 2005.

In March 2006, FRA completed the first plan to improve dangerous grade crossings in Louisiana. The railroads operate in 57 of Louisiana's 64 parishes on 3,000 rail miles and motorists drive over more than 6,000 public and private crossings. As part of Louisiana's action plan, FRA's grade crossing data were analyzed to identify public crossings with multiple collisions from 1999 through 2004. The resulting action plan focused chiefly on crossings located near the intersection of two roadways. This focus was supported by data showing that 97 percent of the collisions at multi-collision crossings occurred near highway intersections. For 130 of the 177 crossings with multiple collisions, Louisiana transportation officials took actions to ensure that flashing lights, gates, or crossing closures were installed.

FRA's efforts in Louisiana and its similar ongoing work with Texas are steps in the right direction. Continued action is warranted to identify and address the most dangerous grade crossings in the states with the most grade crossing collisions. Congress may want to consider requiring FRA to increase this level of effort by conducting similar projects in other states with high numbers of grade crossing collisions.

Madam Chair, this concludes my statement. I would be pleased to respond to any questions that you or other members of the Subcommittee may have at this time.

ATTACHMENT 1. OFFICE OF INSPECTOR GENERAL GRADE CROSSING SAFETY WORK PRODUCTS

1. OIG Report No. MH-2007-044, "The Federal Railroad Administration Can Improve Highway-Rail Grade Crossing Safety By Ensuring Compliance With Accident Reporting Requirements and Addressing Sight Obstructions," May 3, 2007

2. OIG Testimony, CC-2007-018, "Reauthorization of the Federal Railroad Safety Program," January 30, 2007

3. OIG Report No. MH-2006-016, "Audit of Oversight of Highway-Rail Grade Crossing Accident Reporting, Investigations, and Safety Regulations," November 28, 2005

4. OIG Testimony, CC-2005-060, "Highway-Railroad Grade Crossing Safety Issues," July 21, 2005

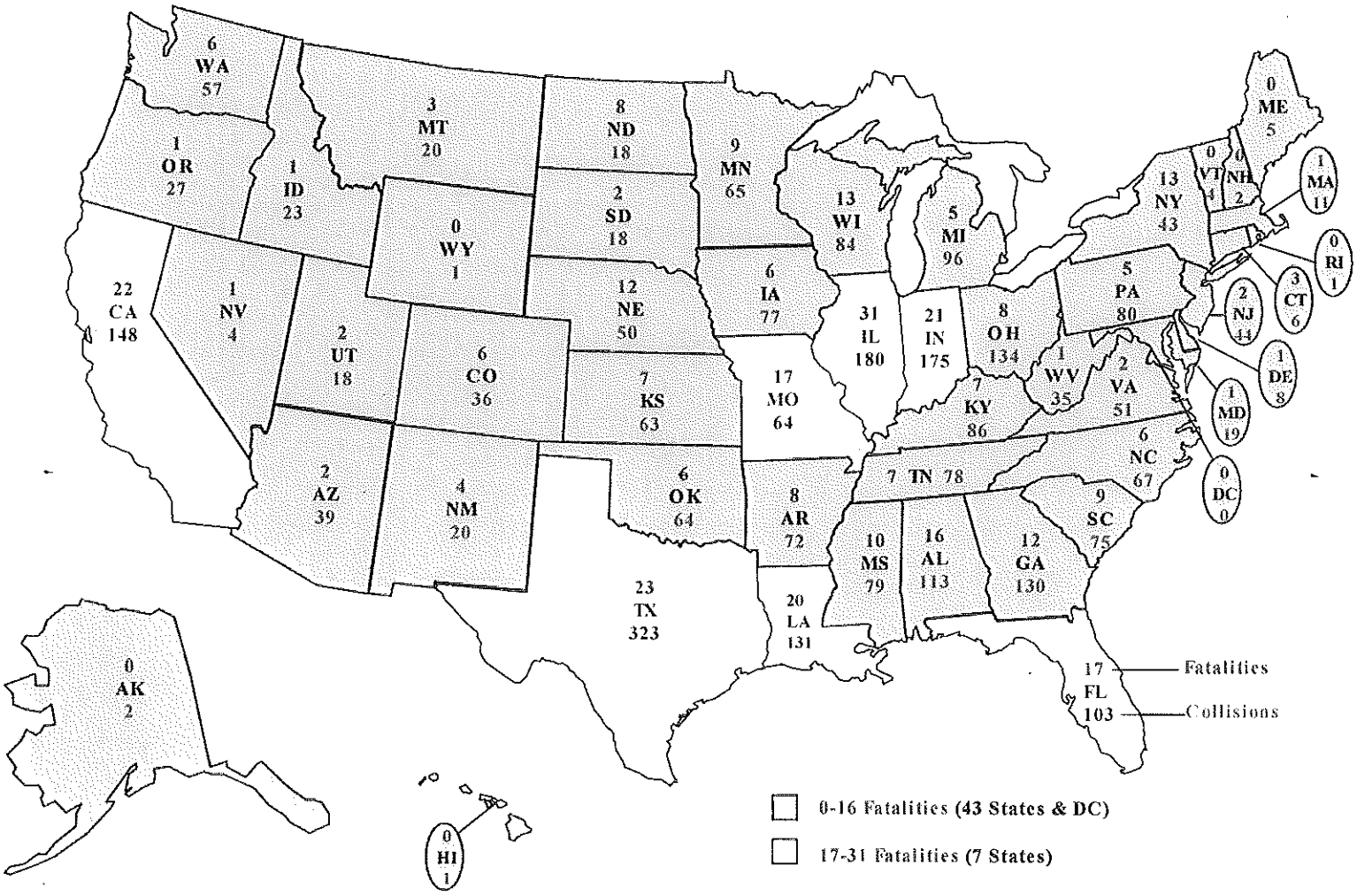
5. OIG Memorandum "Safety-Related Findings and Recommendations," February 16, 2005

6. OIG Report No. MH-2004-065, "Highway-Rail Grade Crossing Safety Program," June 16, 2004

7. OIG Report No. RT-1999-140, "Rail-Highway Grade Crossing Safety," September 30, 1999.

OIG reports and testimony statements can be accessed on the OIG website at *www.oig.dot.gov*.

ATTACHMENT 2. U. S. MAP OF THE NUMBER OF REPORTED COLLISIONS AND FATALITIES AT GRADE CROSSINGS, BY STATE, IN 2005



Source: OIG analysis of FRA data