

**Before the Transportation and Infrastructure Committee
Railroads Subcommittee
U.S. House of Representatives**

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Highway-Railroad Grade Crossing Safety Issues

**Statement of
The Honorable Kenneth M. Mead
Inspector General
U.S. Department of Transportation**



Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify today on the Federal Railroad Administration's (FRA) oversight of highway-railroad grade crossing safety. We issued major grade crossing safety reports in 1999 and 2004, and we have another report in process. Our testimony is based on this body of work. In 2004, there were 3,045 grade crossing collisions resulting in 368 fatalities. There have been significant strides in reducing fatalities at grade crossings over the last 10 years, but more can be done to prevent deaths and serious injuries. We commend the Chairman and Subcommittee for holding this hearing.

In 1994, the Department set a goal to reduce grade crossing fatalities by 50 percent over the following 10 years. At that time, there were 626 deaths from crossing collisions. Over those 10 years, the Department made significant progress toward reaching its goal. The number of grade crossing collisions declined by 39 percent and fatalities fell by 47 percent to 332 deaths in 2003. Most of the progress FRA achieved came from closing about 41,000 crossings and installing automatic gates and flashing lights at about 4,000 other crossings with a high probability for collisions.

Despite this progress, the number of deaths at crossings rose 11 percent in 2004, to 368. This indicates that continued attention needs to be paid to efforts to improve safety. Further progress can also be expected to be more difficult and to yield incrementally fewer benefits. In other words, FRA has picked the "low-hanging fruit," and additional gains will be harder to achieve. To illustrate, automatic warning devices do not prevent all accidents. Nearly half of the crossing collisions that occurred in the last 5 years occurred at crossings *with* active warning devices. More importantly, further progress will be difficult because railroad accident reports attributed 91 percent of collisions (over the last 5 years) to reckless or inattentive drivers. For example, drivers ignore warning signs or even drive around barriers as trains approach.

To its credit the Department is continuing its focus on improving grade crossing safety. In 2004, at the direction of Congress, the Department issued a new action plan that calls for a comprehensive Department-wide effort to adopt a uniform strategy to further reduce crossing collisions and fatalities. The new plan identifies several initiatives, including strengthening law enforcement by vigorously enforcing grade crossing traffic laws to discourage dangerous behavior by motor vehicle drivers.

FRA also issued three new rules to enhance safety at crossings this year pertaining to the use of reflective stickers on railroad cars to increase visibility; strengthening requirements for sounding horns at crossings; and improving the crashworthiness

of locomotive event recorders. These are all important actions, but our recent audit work indicates that greater attention is needed in the areas of reporting and investigating grade crossing collisions, and strengthening enforcement when an FRA inspector cites a railroad for a safety defect.

In the summer of 2004, news reports raised serious questions about the reporting and investigation of grade crossing accidents. Responding to these concerns, Representative James L. Oberstar, Ranking Member of the House Committee on Transportation and Infrastructure; Representative Corrine Brown, Ranking Member of this Subcommittee; and Senator Daniel K. Inoyue, Ranking Member of the Senate Committee on Commerce, Justice, and Science; asked us to review FRA's oversight of grade crossing accident reporting, investigations, and inspections.

We are finalizing our work on this request and will discuss three areas that FRA needs to address as it moves forward: improving accident reporting, conducting more investigations of crossing collisions, and strengthening enforcement of crossing safety regulations.

- 1. *Railroads failed to report 21 percent of serious crossing collisions to the National Response Center (NRC) and FRA can do more to enforce this reporting requirement.*** Railroads are required to report serious accidents involving fatalities to the National Response Center immediately, so the Federal government can properly respond. We found 21 percent of serious crossing collisions were not being reported at all, let alone in a timely way. Our analysis showed that 115 of the 543 serious grade crossing collisions that occurred between May 1, 2003, and December 31, 2004, should have been reported to NRC, but were not in its database. These unreported crossing collisions killed 116 people. These collisions were ultimately reported to FRA within 30 to 60 days after the collision, as required, but that was too late to allow Federal authorities to take prompt action. FRA only recently began reconciling its database with the NRC, and told us that they plan to penalize railroads for failing to notify NRC. These enforcement efforts need to be sustained to ensure that railroads properly report serious accidents.

FRA should also examine ways to clarify its requirements for reporting collisions to NRC to avoid any confusion on the part of railroad employees. We found eight different FRA criteria for reporting collisions to NRC. Some of these applied to any train accidents, and others applied only to grade crossing collisions. A simple way to clarify this is to require reporting to NRC any collision that results in one fatality or one injured person being taken to a hospital.

2. ***The Federal government investigates very few crossing collisions and needs to develop strategies to increase its involvement in investigations.*** FRA investigated 9 of the 3,045 crossing collisions that occurred in 2004. FRA investigated 47, or 13 percent, of the 376 most serious crossing collisions that occurred from 2000 through 2004, according to FRA's accident database. We found that no Federal investigations were conducted for the other 329 serious crossing collisions, which caused 159 deaths and 1,024 injuries. FRA officials stated that the National Transportation Safety Board (NTSB) is the lead Federal agency responsible for investigating accidents, not FRA. However, NTSB tends to investigate major crossing collisions, and conducted just seven crossing investigations from 2000 to 2004. Because the Federal government does not independently investigate most collisions, information that FRA gets concerning the causes comes almost exclusively from self-reporting by railroads.

The railroads' reports attribute over 90 percent of the collisions to motorists, and FRA as a practice, does not conduct its own investigation to verify these findings. For example, FRA does not routinely review and analyze locomotive event recorder data, state and local police reports, or state railroad inspectors' collision reports. Collecting independent information about accidents would substantially improve FRA's ability to understand the causes of grade crossing collisions and better target collisions that FRA decides it should itself investigate. We think this is especially important given the limited resources of FRA's inspection staff.

3. ***FRA should strengthen its enforcement of grade crossing safety regulations.*** FRA inspectors identified 7,490 critical safety defects out of 69,405 total safety defects related to railroad crossing warning signals, from 2000 through 2004. But they recommended only 347—about 5 percent of critical defects—for violations, which carry a fine. Critical defects include the failure of a signal to activate or the failure of a railroad employee to repair signal malfunctions in a timely manner. Before fines can actually be assessed, however, the recommendations must go through an adjudication process including first, approval by regional FRA officials and then, approval by the Chief Counsel at FRA's headquarters. Even if the Chief Counsel agrees to assess a fine, the railroads typically negotiate with FRA, and are usually successful in decreasing the fines. In total, FRA collected only \$271,000 in fines from railroads in 2003 for grade crossing signal violations.

FRA needs to consider whether the small number of violations recommended for civil penalties and the low amounts of fines collected

sufficiently encourage railroads to better comply with Federal safety standards. FRA needs to emphasize enforcement by issuing more violations and assessing civil penalties when critical safety defects are discovered. We note that following the Secretary's announcement of the Department's new Action Plan, FRA assessed one railroad \$298,000 for grade crossing signal violations related to a single collision that killed two people. This fine was larger than the total of all of the fines imposed upon all of the railroads in 2003 for grade crossing signal violations. That level of penalty can be expected to focus railroads' attention on crossing safety.

The focus of our current audit work builds upon the grade crossing safety report we issued in June 2004. The 2004 report focused on the Department's progress in implementing its 1994 Highway-Rail Grade Crossing Safety Action Plan and highlighted collision trends for targeting future grade crossing safety improvements. We recommended that the Department adopt a more targeted approach to focus on the states and public crossings that continue year after year to have the highest number of crossing collisions. This more targeted approach would result in these states developing an action plan that identifies specific steps to improve safety at those crossings that continue to have collisions. For example, FRA needs to continue to encourage states to upgrade crossings that do not have active warning devices, based on the frequency of accidents at those crossings. We also recommended that FRA focus its safety efforts by encouraging states to strengthen traffic enforcement strategies and target motor vehicle drivers that violate grade crossing laws and warnings. The Department has made progress in implementing these recommendations.

In February 2005, we also reported¹ that FRA needs to use trend analysis to target its inspection and enforcement efforts on the problems that are most likely to result in accidents and injuries, and use other data analysis tools to examine key indicators of a railroad's safety condition. In response, FRA issued a new National Rail Safety Action Plan, which represents the Department's aggressive new approach to improving safety throughout the railroad industry. This plan is intended to strengthen its oversight of railroad safety and improve the quality and reliability of the information it uses in oversight activities.

We would like to now address the three areas in greater detail.

¹ Memorandum to Acting Federal Railroad Administrator Robert D. Jamison: "Safety-Related Findings and Recommendations," February 16, 2005.

1. Railroads failed to report 21 percent of serious crossing collisions to the National Response Center (NRC) and FRA can do more to enforce this reporting requirement. We found that 21 percent of serious rail grade crossing accidents were not reported to the National Response Center. Despite Federal regulations requiring the railroads to notify NRC by telephone of serious grade crossing collisions within 2 hours, we found six large railroads and several smaller ones failed to report some serious grade crossing collisions to NRC. From May 1, 2003 through December 31, 2004, 115 serious grade crossing accidents, or 21 percent of the 543 serious accidents that should have been reported to NRC, were not in its database. These unreported accidents killed 116 people.

For example, on October 29, 2003, a Class I railroad did not notify NRC when one of its freight trains collided with a motor vehicle at a public grade crossing in Tennessee. The 18-year old motor vehicle driver died shortly after arriving at the hospital. FRA told us that the underreporting of serious grade crossing accidents is largely attributable to injured highway users dying after they were taken from the grade crossing accident scene. FRA officials told us that confusion by railroad employees about which accidents to report to NRC also contributes to some missed reporting. FRA could address both problems by simplifying the reporting requirements, which we found complex. An easy fix would be to require accidents that result in even one serious injury to be reported.

When we issued our June 2004 report, FRA had not established a formal mechanism to identify serious accidents that had not been reported. In July 2004, FRA established a process to verify whether the railroads were reporting grade crossing collisions to the NRC by comparing the NRC's data with reports that railroads submit to a separate FRA database within 30 to 60 days after a grade crossing collision. FRA officials recently informed us that they plan to take enforcement action to fine the railroads if they fail to report serious accidents to NRC in a timely manner.

2. The Federal government investigates very few crossing collisions and needs to develop strategies to increase its involvement in investigations. We found that FRA investigates less than 1 percent of all crossing collisions (see Table 1), and 2 percent of the serious collisions reported to the NRC. As a result, FRA relies heavily on accident reports submitted to it by the railroads to evaluate the circumstances, probable causes, and responsible parties in most crossing collisions. FRA does not routinely review independent sources of information for these collisions, such as police reports.

Typically, crossing collisions are promptly investigated only by railroad employees and state or local law enforcement officers, without any Federal

officials present. For most of the nearly 3,200 collisions that occur each year, railroad employees are among the first to arrive at the accident scene to investigate collisions. The railroads are required to submit an accident report to FRA within 30 days after the end of the month in which the crossing collision occurred.

State or local law enforcement officers also promptly arrive at the scene of crossing collisions to independently document it, but their reports are not routinely requested by FRA. With few Federal investigations and independent reports from law enforcement officers, FRA has opted to rely primarily on the information in the railroads' accident reports regarding the nature, cause, and party responsible for most crossing collisions.

Both NTSB and FRA have the legislative authority to investigate any crossing collision, but NTSB tends to focus on high-profile crossing collisions with multiple fatalities. In March 2000, for example, NTSB led the investigation of a collision between a CSX freight train and a school bus in Tennessee that killed three and injured seven. FRA also participated in this investigation.

FRA officials told us its ability to investigate crossing collisions is limited by the number of

Year	Train Accidents			Crossing Collisions		
	Number	Investigated		Number	Investigated	
		No.	%		No.	%
2000	16,918	57	0.3%	3,502	12	0.3%
2001	16,087	75	0.5%	3,237	18	0.6%
2002	14,404	54	0.4%	3,077	10	0.3%
2003	14,239	76	0.5%	2,963	4	0.1%
2004	13,939	93	0.7%	3,045	9	0.3%
Total	75,587	355	0.5%	15,824	53	0.3%
Source: FRA						

inspectors it has. FRA has an inspector workforce of approximately 400, who oversee railroad compliance with Federal regulations by conducting regular inspections of railroad property, such as equipment, tracks, and signals. These inspectors also investigate accidents, complaints, and signal failures, and only 64 of them have the expertise to inspect signal and train control devices. Collecting independent information about accidents would substantially improve FRA's ability to understand the causes of grade crossing collisions and better target collisions that FRA decides it should itself investigate. We think this is especially important given the limited resources of FRA's inspection staff. FRA inspectors normally investigate only those crossing collisions that involve the malfunction of automated warning devices, or involve a commercial vehicle or school bus and result in one death or several serious injuries, or death to three or more highway users. While we found that FRA did investigate all but one of the collisions that met its criteria, the criteria itself requires the investigation of very few collisions.

The fact that a fifth of all serious crossing collisions were not reported to NRC further limits the number of investigations that FRA conducts.

According to FRA's accident database, FRA investigated only 47, or 13 percent, of the 376 most serious crossing collisions that occurred from 2000 through 2004. We found that no Federal investigations were conducted for 329 of these crossing collisions, which resulted in 159 deaths and 1,024 injuries. Unlike FRA, the Federal Aviation Administration's (FAA) inspectors arrive at the scene of 80 percent of all aviation accidents. FAA investigated about 1,352 aircraft accidents in 2004 that killed 645 people. However, it is important to note that FAA has an inspection staff that totals 3,579. FAA also has an Office of Investigations that oversees the collection of information for aviation accidents.

3. FRA should strengthen its enforcement of grade crossing safety regulations.

FRA has made limited use of its regulatory enforcement authority to encourage compliance by railroads that fail to properly inspect and maintain grade crossings by assessing civil penalties (see Table 2). Active highway warning signals at grade crossings play a

critical role in protecting lives of motorists and railroad employees. We found that from 2000 through 2004, FRA inspectors identified 7,490 critical safety defects, out of 69,405 total safety defects related to railroad crossing warning signals, but recommended only 347—

about 5 percent of critical defects—for violations. A violation is a recommendation that a civil penalty be assessed. During the same period, FRA inspectors identified 2,692 instances of railroad employees failing to repair a grade crossing warning system “without undue delay,” but recommended only 67 of these instances—about 2.5 percent—for violations.

Table 2. Grade Crossing Signal Violation Fines, 2000-2003

Year	Class I Railroads	Other Railroads	Total
2000	\$52,850	\$8,800	\$61,650
2001	\$142,550	\$97,450	\$240,000
2002	\$96,450	\$59,650	\$156,100
2003	\$173,350	\$97,600	\$270,950
2000-2003	\$465,200	\$263,500	\$728,700
Source: FRA			

Just such a failure resulted in the deaths of an elderly couple in a collision at a crossing in Henrietta, New York, on February 3, 2004. Seven days earlier, on January 27, 2004, railroad employees disabled the warning signal system that was causing false warning activations. The day after the fatal crash, FRA cited the railroad for not promptly repairing the system, but did not recommend a civil penalty. The following day, an FRA inspector recommended that the railroad be penalized for failing to stop its train at the crossing and to flag the traffic. Later, one more penalty was recommended for failing to repair without undue delay.

This case received a great deal of public scrutiny and was aggressively pursued by the State's Attorney General. FRA recently reported that it also assessed and collected \$298,000 in penalties against this railroad for this collision.

We have found a number of factors that limit FRA's enforcement actions. First, FRA has not set specific time limits for the repair of malfunctioning warning systems. FRA's rules prohibit an "undue delay," that is, one that is "unjustifiable or excessive." In our view, this standard is overly subjective and makes enforcement more difficult because there is no clear expectation of the time frame for correcting deficiencies.

Second, all regulatory agencies rely on voluntary compliance. However, in the case of railroad grade crossings, from 2000 through 2004, FRA inspectors identified 7,490 critical safety defects, those that have the most direct safety impact, but only recommended 347—about 5 percent—for civil penalties. These defects include the failure of a signal to activate, and the failure of an employee to respond in a timely manner to the report of a signal malfunction.

Third, even when an FRA inspector decides that a railroad should be issued a violation, the inspector does not issue a citation that requires a railroad to pay a fine for failing to comply with safety standards. Before fines can actually be assessed, the recommendations must go through an adjudication process including first, approval by regional FRA officials and then approval by the Chief Counsel at FRA's headquarters. Even if the Chief Counsel agrees to assess a fine, the railroads typically negotiate with FRA, and are usually successful in decreasing the fines. In total, FRA collected only \$271,000 in fines from railroads in 2003 for grade crossing signal violations.

FRA needs to consider whether the small number of violations recommended for civil penalties and the low amounts of fines collected sufficiently encourage railroads to better comply with Federal safety standards. FRA needs to emphasize enforcement by issuing more violations and assessing civil penalties when critical safety defects are discovered. We note that following the Secretary's announcement of the Department's new Action Plan, FRA assessed one railroad \$298,000 for grade crossing signal violations related to the Henrietta, New York, collision we mentioned earlier. This fine was larger than the total of all of the fines imposed upon all of the railroads in 2003 for grade crossing signal violations. That level of penalty can be expected to focus railroads' attention on crossing safety. FRA should sustain this type of aggressive enforcement activity. We hope that this is not just an isolated case, but represents FRA's new approach to enforcing grade crossing safety regulations.

That concludes my remarks. I would be glad to answer any questions you may have.