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RAIL TRANSPORTATION

Federal Railroad Administration's Safety Programs

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify on rail safety as the Subcommittee considers legislation to reauthorize rail safety programs. The increased concentration of larger railroads, as well as the service problems occurring in the western half of the United States, have heightened concern about the safety of freight railroads. In July 1997, we reported on operational and safety trends in the rail industry over the past 20 years and how the Federal Railroad Administration (FRA) has revised its rail safety program to address these trends.¹ Currently, there are 10 class I railroads—the nation’s largest railroads—Amtrak and 9 freight railroads. Because of data limitations, our report provided information on safety trends for the entire railroad industry—not just the largest railroads—and operational trends for class I freight railroads. In summary, we found the following:

- The railroad industry has changed significantly since the Staggers Rail Act of 1980 made it federal policy that railroads would rely, where possible, on competition and the demand for services rather than on regulation to establish reasonable rates. From 1976 to 1998, mergers and acquisitions have significantly reduced the number of class I freight railroads. These larger railroads have cut costs, increased the tonnage their trains carry, downsized their workforce, and eliminated, sold, or abandoned thousands of miles of unprofitable or little-used track. During this same period, overall railroad safety has improved. Reported accident and fatality rates are down 75 and 36 percent, respectively, from 1976 levels. Despite this progress, each year about 1,000 people die as a result of grade-crossing accidents and trespassing, at least 9,000 railroad employees are injured, and thousands of people are evacuated from their homes because of hazardous materials released during train accidents.
- FRA instituted an important shift in its safety program in 1993 to address safety problems in the rail industry. Rather than continuing to use violations and civil penalties as the primary means to obtain compliance with railroad safety regulations, FRA decided to emphasize cooperative partnerships with other federal agencies, railroad management, labor unions, and the states. The partnering efforts generally focus on the nation’s larger railroads and have resulted in FRA inspectors’ conducting fewer site-specific inspections of the railroad industry overall. While 1996 and preliminary 1997 data, the latest data available, show improvements in safety, it is too early to determine if FRA’s new approach will sustain a

¹Rail Transportation: Federal Railroad Administration’s New Approach to Railroad Safety (GAO/RCED-97-142, July 23, 1997).

long-term decline in accidents and fatalities. In addition, FRA's new partnering efforts do not systematically respond to concerns about the level of workplace injuries for railroad employees and about the safety of railroad bridges.

Background

FRA enforces federal railroad safety statutes under a delegation of authority from the Secretary of Transportation. FRA's mission is to protect railroad employees and the public by ensuring the safe operation of freight and passenger trains. FRA has three major safety-related activities: (1) administering safety statutes, regulations, and programs, including the development and promulgation of standards and procedures, technical training, administration of postaccident and random testing of railroad employees, and management of rail-highway grade-crossing projects; (2) conducting research on railroad safety and national transportation policy; and (3) enforcing federal safety statutes, regulations, and standards by inspecting railroad track, equipment, signals, and railroad operating practices. FRA also enforces the provisions of the Hazardous Materials Transportation Act as it applies to rail.

Freight Railroad Operational and Safety Trends

The Staggers Rail Act of 1980 prompted many changes in the composition and operations of the freight industry. The act provided the railroads with greater flexibility to negotiate freight rates and respond to market conditions. It established a federal policy that freight railroads would rely, where possible, on competition and the demand for services, rather than on regulation, to establish reasonable rates. As a result, the freight railroad industry has changed substantially over the past 20 years. Today's freight rail industry has fewer large railroads; hauls more tonnage over fewer miles of track; and employs fewer people, locomotives, and railcars. Specifically,

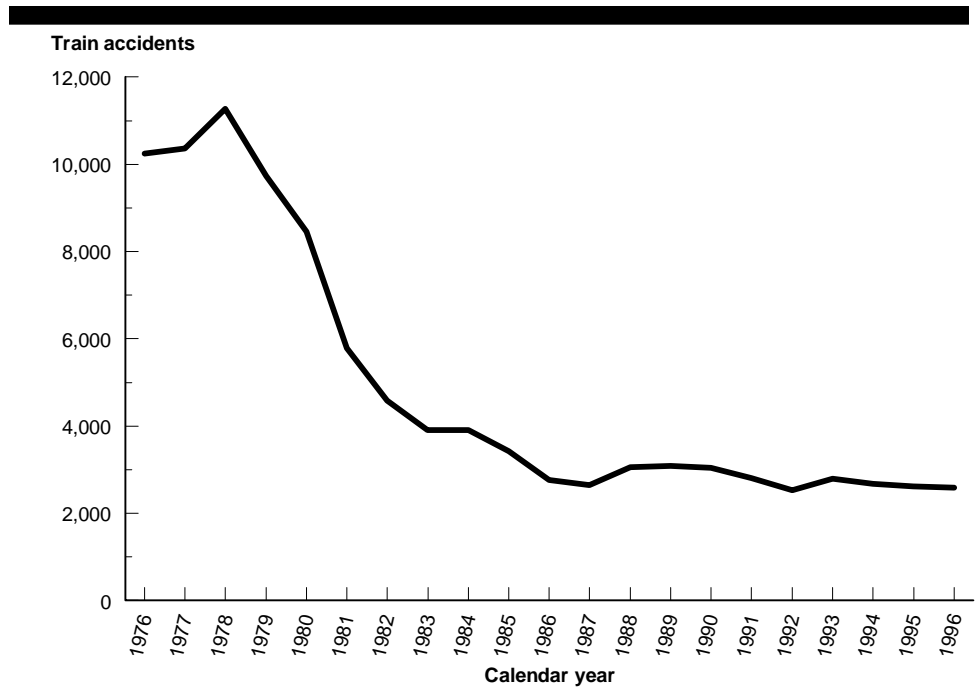
- Mergers and acquisitions have reduced the number of class I railroads from 88 in 1976 to 10 in 1998: Amtrak and 9 class I freight railroads—Burlington Northern and Santa Fe Railway Company; Consolidated Rail Corporation (Conrail), CSX Transportation; Grand Trunk Western Railroad, Inc.; Illinois Central Railroad Company; Kansas City Southern Railway Company; Norfolk Southern Corporation; Soo Line Railroad Company; and Union Pacific Railroad Company. The number of large railroads could decline further if the Surface Transportation Board approves the acquisition of Conrail by CSX Transportation and Norfolk

Southern Corporation, and Canadian National Railway's purchase of Illinois Central Railroad.

- Class I freight railroads are carrying more tonnage over longer distances. In 1996, each train hauled an average of 2,912 tons, up from 1,954 tons in 1976, and the average length of the haul was 842 miles, up from 564 miles in 1976.
- Class I freight railroad employment declined by 62 percent between 1976 and 1996—from 483,000 to 182,000 employees—and is forecast to continue to decline over the next 10 years.
- Class I freight railroads have eliminated, abandoned, or sold 42 percent of their trackage between 1976 and 1996. According to FRA officials, the total rail network is projected to decline slightly each year.

While deregulation and improvements in rail technology have facilitated operational and economic changes, the level of railroad safety has also changed over the past 20 years. In general, railroad safety has improved—railroad accident and fatality rates are down from their 1976 levels. As shown in figure 1, the number of train accidents declined from 10,248 in 1976 to 2,584 in 1996—a 75-percent reduction.

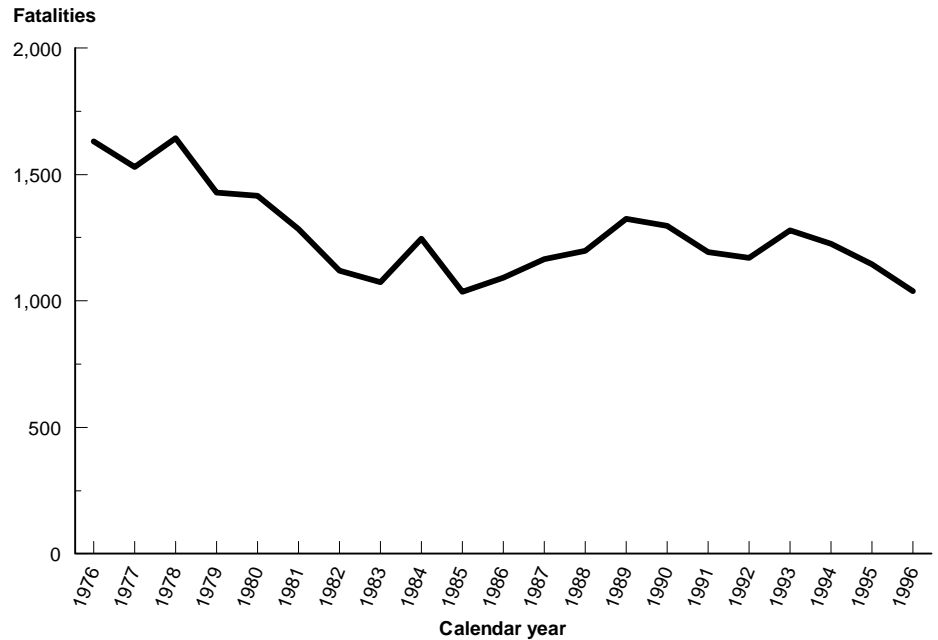
Figure 1: Total Train Accidents, All Railroads, Calendar Years 1976 Through 1996



Source: FRA.

While the number of accidents declined rapidly prior to 1987, progress continued at a slower rate from 1987 to 1996. During this time, class I freight railroads—which account for most of the industry’s freight revenue and more than three-quarters of its train miles—had begun to use fewer people and equipment to haul more tonnage over fewer miles of track. The number of rail-related fatalities also declined during this period. As figure 2 shows, rail-related fatalities declined from 1,630 in 1976 to 1,039 in 1996—a 36-percent reduction.

Figure 2: Railroad Industry Fatalities, Calendar Years 1976 Through 1996



Source: GAO's analysis of FRA's data.

Nonetheless, this progress is tempered by the more than 1,000 deaths that occur each year on the nation's rail lines. Nine out of ten rail-related deaths are the result of either collisions between cars and trains at highway grade crossings or trespassers killed by trains while on railroad property.

FRA Has Established Three Key Initiatives to Improve Rail Safety

Beginning in 1993, FRA reassessed its safety program to leverage the agency's resources and establish a cooperative approach that focuses on results to improve railroad safety. With rail traffic expected to continue to grow, FRA anticipated the need for new approaches to enhance its site-specific inspections. As a result, FRA formalized this shift from inspection to collaboration with three initiatives. First, in 1994, FRA took the lead responsibility for coordinating the Department of Transportation's (DOT) multiagency plans to reduce fatalities at rail-highway crossings. Second, in 1995, FRA formally established a Safety Assurance and Compliance Program through which the agency would

work cooperatively with railroad labor and management to identify and solve the root causes of systemic safety problems facing the railroads. Third, in 1996, FRA established the Railroad Safety Advisory Committee to develop recommendations for the agency's more complex or contentious rulemakings by seeking consensus among the affected parties. While 1996 data and preliminary data for 1997 show improvements in some key indicators, it is still too early to determine whether FRA's new approach will sustain a long-term decline in accidents and fatalities.

DOT Works With Industry and States to Improve Rail-Highway Crossing Safety

About 94 percent of railroad fatalities occur as a result of either collisions between cars and trains at highway grade crossings or trespassers killed by trains while on railroad property. In 1994, FRA took the lead role in DOT's Rail-Highway Crossing Safety Action Plan—an effort targeting federal, state, and industry actions to improve rail-highway crossing safety and reduce fatalities among trespassers. To successfully implement the plan, FRA is working with other federal agencies, the states, and the railroads to strengthen education and research activities; enhance federal, state, and local enforcement efforts; and increase or preserve federal rail-highway crossing safety funds. In 1994, DOT established a 10-year goal of reducing the number of rail-highway grade-crossing accidents and fatalities by 50 percent.

In 1996, the number of rail-related fatalities declined to 1,039—the lowest level in 10 years. (See fig. 2.) FRA attributed the improved statistics to its safety initiatives, including the rail-highway crossing program. Whether the plan contributed to the decline is uncertain: Past trends indicate the total number of railroad fatalities declined by 34 percent from 1976 to 1983 (from 1,630 to 1,073) but then fluctuated within a range of 1,036 and 1,324 deaths between 1983 and 1996. While preliminary data for 1997 show a continued downward trend for accidents, fatalities were projected to increase from 1,039 in 1996 to 1,048 in 1997.

Safety Assurance and Compliance Program Seeks Voluntary Cooperation of Railroad Management and Labor

In 1994, FRA began the Safety Assurance and Compliance Program (SACP) with the Chicago and Northwestern Railroad and Southern Pacific Railroad. FRA initiated the program in response to a period of little decline in accident statistics, the belief that a continuation of existing approaches would not produce any further declines, and President Clinton's directive to federal regulatory agencies that their inspection and enforcement programs be designed to achieve results, not punishment.

As of April 1998, FRA had conducted initial SACP meetings with senior management at 55 railroads and planned to initiate SACP at approximately 12 additional smaller railroads by the end of fiscal year 1998.² FRA does not plan to conduct SACP assessments of all of the more than 600 railroads in the United States. Instead, FRA inspectors are expected to look for systemic problems at smaller railroads through FRA's traditional site-specific inspections. FRA cites improvements in safety statistics since 1993 as evidence that SACP is improving safety throughout the nation's railroad system. From 1993 through 1996, rail-related fatalities declined by 19 percent, employee injuries declined by about 40 percent, and train accidents declined by 7 percent.

However, accidents involving Union Pacific and CSX trains during 1997 have raised questions about the effectiveness of FRA's SACP. Despite FRA's intensive safety reviews of both of these railroads during 1995 and 1996, the railroads had 10 accidents and collisions in the summer of 1997 that resulted in eight deaths. In response, FRA sent teams of 75 to 80 inspectors to each railroad to document safety problems and ensure that the railroads had addressed problems found in earlier reviews. FRA found a number of safety deficiencies at both railroads and made several recommendations targeted to improving railroad operations. For example,

- FRA found that Union Pacific supervisors' workloads prevented them from effectively monitoring and evaluating their employees' performance and recommended that Union Pacific provide affected employees with additional training to ensure compliance with safety regulations;
- FRA's review of CSX revealed inadequate track maintenance and recommended that CSX evaluate its staffing levels and hire additional employees where needed.

FRA plans to continue to monitor each railroad's progress.

It Is Premature to Assess Results From Actions of FRA's Railroad Safety Advisory Committee

In March 1996, FRA established a Railroad Safety Advisory Committee consisting of representatives from railroad management, labor unions, and others to provide FRA with recommendations on important rail safety issues through a consensus-based process. According to FRA, it uses the Advisory Committee to obtain the views of those most affected by regulatory decisions, improve the quality of rules, reduce the time required to complete them, and reduce the likelihood of litigation after they are

²The SACP process consists of four elements: a safety profile, senior management meetings, a safety action plan, and a safety audit.

promulgated. However, the committee's participation supplements rather than eliminates required steps in the rulemaking process.

Since the inception of the Advisory Committee, the FRA Administrator has referred 14 rulemaking tasks to it.³ (See app. I.) Several of the tasks referred to the committee concern complex or controversial matters that FRA had been working on for several years. For example, FRA had been working on the Locomotive Crashworthiness, Track Safety, Railroad Communication, and Freight Power Brake rules for 4 years before referring them to the Advisory Committee. In two cases, FRA had missed the statutorily mandated issuance date.⁴ FRA has not yet issued any final rules developed by the committee.

Gaps in FRA's New Partnering Approach

The collaborative approach that FRA has adopted for obtaining voluntary compliance with railroad safety rules has shifted some of FRA's resources away from site-specific inspections, which have historically served as FRA's primary means of ensuring compliance with safety regulations. This shift is most evident in the 23-percent decline in the number of inspections conducted between 1994 and 1997.⁵ In addition, the agency's partnering or inspection efforts do not systematically address improving the workplace safety of railroad employees and ensuring that railroad bridges receive inspection oversight that is comparable to other railroad areas. FRA has chosen not to issue regulations addressing many workplace safety issues, although illnesses and injuries to railroad employees accounted for most of the 12,558 rail-related injuries and illnesses that occurred in 1996. In addition, FRA's 1995 decision not to promulgate bridge safety regulations requires FRA personnel to rely primarily on the railroads' voluntary correction of bridge safety problems.

Inspection Efforts Have Changed Under the Partnering Approach

FRA's efforts to increase cooperation with the railroad industry add new responsibilities for its 270 inspectors. Nearly all inspectors participate in SACP by conducting formal discussions with labor, participating in senior management meetings, or focusing on SACP-related issues when conducting routine site-specific inspections. In addition, inspectors participate in the Advisory Committee's working groups and task forces.

³In April 1996, FRA referred the revisions of freight brake standards to the Advisory Committee. Because of a stalemate in negotiations, FRA withdrew the task from the committee in June 1997.

⁴FRA was required to issue a final rule or report on locomotive crashworthiness and cab working conditions by March 1995. FRA issued a report in September 1996.

⁵According to an FRA official, 1997 inspection data are preliminary.

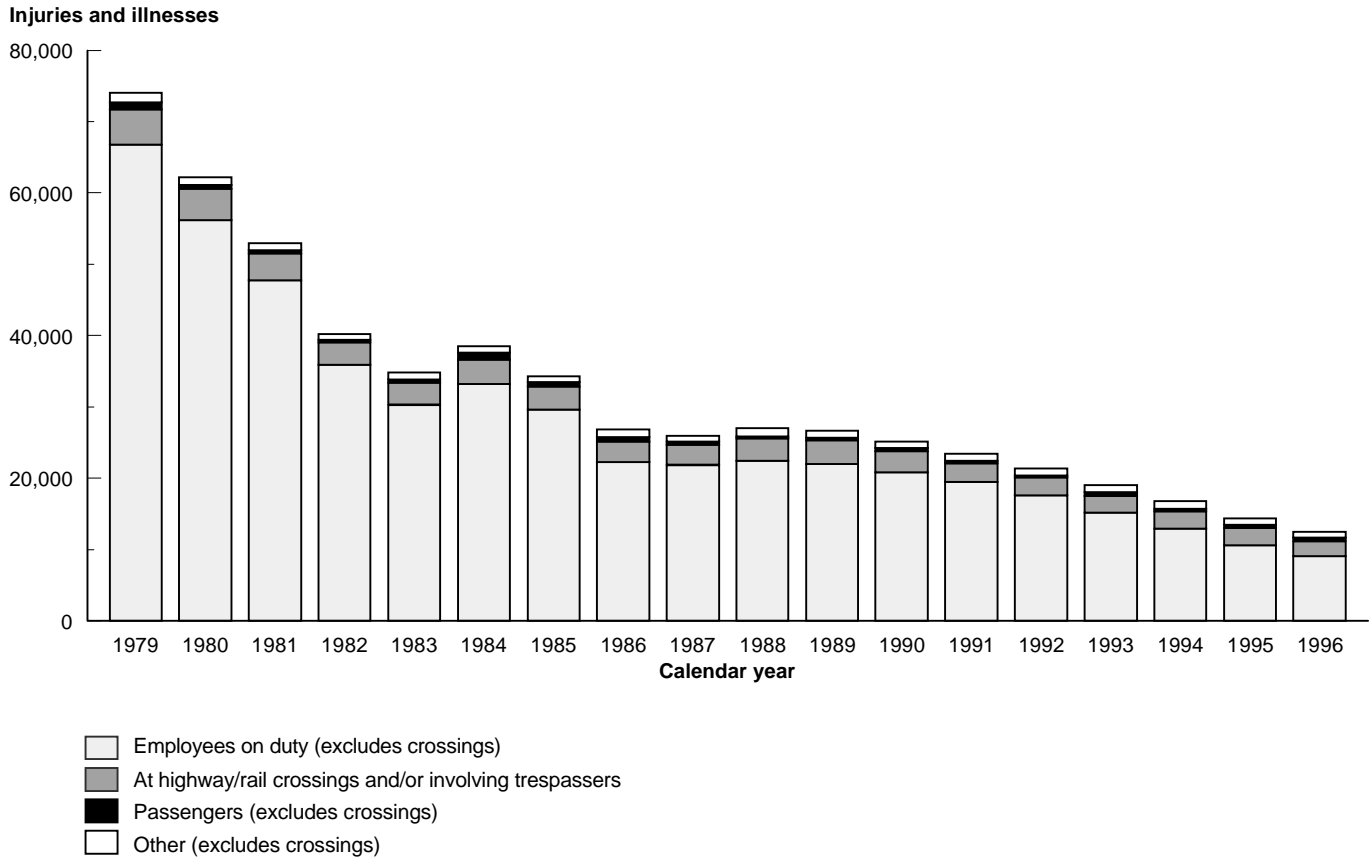
As a result of their additional responsibilities, FRA inspectors have been conducting fewer site-specific inspections. These inspections have served an important oversight function. After increasing slightly between 1985 and 1992, the number of inspections conducted by FRA began to decline in 1993 and declined further by 1997. The number of inspections conducted in 1997 (52,742) was 23 percent below the 68,715 inspections conducted in 1994. This lower number of inspections reflects the fact that a greater number of railroads have not received inspections, and inspectors conduct fewer reviews of the railroads' own inspection efforts.

FRA Does Not Systematically Oversee Workplace and Bridge Safety

The number of rail-related injuries and illnesses has declined from 65,331 in 1976 to 12,558 in 1996. As figure 3 shows, most of these injuries and illnesses involved railroad employees.⁶ Preliminary data for 1997 show a continued decline, with rail-related injuries and illnesses decreasing to 11,540. Railroads must report injuries that require medical treatment or result in work restrictions and lost work days.

⁶Data on injuries and illnesses by type of person and occurrence were available only for calendar years 1979 through 1996.

Figure 3: Injuries and Illnesses by Type of Person and Occurrence, Calendar Years 1979 Through 1996



Source: GAO's analysis of FRA's data.

Efforts to reduce injuries to workers must rely on the combined efforts of FRA and the Occupational Safety and Health Administration (OSHA).⁷ FRA generally oversees workplace safety issues intrinsic to railroad operations,

⁷The Occupational Safety and Health Act of 1970 gave the Secretary of Labor responsibility for promulgating and enforcing occupational safety and health standards. Section 4(b)(1) provides that the act does not apply to working conditions where another federal agency exercises statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health. The Federal Railroad Safety Act of 1970 allows the Secretary of Transportation to develop regulations that parallel standards under the Occupational Safety and Health Act and preempt the Secretary of Labor from enforcing such standards in the railroad industry.

while OSHA is responsible for issues that would be associated with any industrial workplace. However, FRA's and OSHA's presence on railroad property varies greatly. For example, in 1997, FRA conducted over 52,000 inspections of track, railroad equipment, and operating practices related to train operations. In contrast, OSHA inspectors normally visit railroad properties only in response to an employee or union complaint about working conditions or when investigating a workplace accident that resulted in the injury of three or more employees.

FRA inspectors have no authority to cite railroads for workplace safety problems that fall under OSHA's jurisdiction. However, if FRA inspectors observe unsafe work practices, such as an employee welding without proper eye protection, they can point out the problem to railroad supervisory personnel for voluntary compliance. Labor representatives expressed concern that because of OSHA's limited resources, certain workplace safety and health issues are not adequately addressed under the split responsibility.

FRA relies on the voluntary cooperation of the railroads, rather than regulations, to ensure the structural integrity of the nation's 100,700 railroad bridges. A 1995 FRA policy statement provides railroads with advisory guidelines to use in implementing their own bridge inspection programs. FRA expects its track inspectors to observe structural problems on bridges as they perform their routine inspections and seek cooperative resolutions with the railroad. FRA states that the railroads have generally taken corrective action in response to inspectors' observations. However, unlike safety problems with track, signals, or equipment, for which inspectors can cite defects or recommend violations, inspectors have no such discretion when dealing with potentially serious bridge problems. Their only recourse is to close the bridge if conditions present an imminent hazard of death or personal injury.⁸

FRA officials said that developing railroad bridge regulations will dilute the agency's capacity to address issues that the agency believes are more important. While railroad management agrees with FRA's policy that regulations are not needed, railroad labor officials disagree and note that bridge safety is equally as important as track safety, for which FRA has promulgated regulations.

⁸As indicated in the 1995 policy statement, FRA maintains the authority to issue emergency, compliance, and disqualification orders, as well as the authority to seek injunctive relief in federal district court.

In our July 1997 report, we recommended that FRA use injury data collected under recently revised reporting requirements to consider developing regulations to address workplace safety and use appropriate mechanisms, including SACP, to ensure that findings of potential structural problems on bridges are properly addressed by the bridges' owners. In response, FRA agreed to issue new employee workplace rules when railroad operations are involved if the railroads' voluntary corrective measures are not effective. In addition, FRA concurred with our recommendation regarding structural bridge safety problems but said it will continue to pursue nonregulatory guidance and monitoring to ensure the safety and integrity of bridges.

Mr. Chairman, this concludes my testimony. I would be happy to respond to any questions that you or Members of the Subcommittee may have.

The Federal Railroad Administration's Rulemaking Actions Assigned to the Advisory Committee

Title	Source of decision to regulate	Legal deadline	Date rule was tasked to the advisory committee
Rulemaking actions mandated by statute			
Freight Power Brakes	Rail Safety Enforcement and Review Act - 9/3/92	Final, 12/31/93	4/1/96 6/24/97 - Withdrawn from Advisory Committee
Locomotive Cab Working Conditions	Rail Safety Enforcement and Review Act - 9/3/92	Final rule or report, 3/3/95	10/31/96 ^a
Locomotive Crashworthiness	Rail Safety Enforcement and Review Act - 9/3/92	Final rule or report, 3/3/95	10/31/96 ^a
Track Safety Standards	Rail Safety Enforcement and Review Act - 9/3/92	Final, 9/1/95	4/1/96 ^b
Railroad Communications	Rail Safety Enforcement and Review Act - 9/3/92 ^c	None	4/1/96 ^d
Other rulemaking actions			
Positive Train Control Technologies, Definitions, and Capabilities	FRA initiative	None	9/30/97
Positive Train Control - Remaining Issues	FRA initiative	None	9/30/97
Event Recorder Data Survivability Standards	FRA initiative	None	6/24/97
Standards for New Train Control Systems	FRA initiative	None	9/30/97
Definition of Reportable "Train Accident"	FRA initiative	None	9/30/97
Tourist and Historic Railroad Regulatory Review	FRA initiative, Regulatory Flexibility Act ^e	None	4/2/96
Qualification and Certification of Locomotive Engineers	Petition to reconsider aspects of an existing rule	None	10/31/96
Reinvention of Steam Locomotive Inspection Regulations	Reinventing government effort	None	7/24/96
Track Motor Vehicle and Roadway Equipment Safety	Petition to develop a rule	None	10/31/96

(Table notes on next page)

Appendix I
The Federal Railroad Administration's
Rulemaking Actions Assigned to the
Advisory Committee

^aThe Rail Safety Enforcement and Review Act required FRA to complete a rulemaking proceeding to consider prescribing regulations pertaining to locomotive working conditions and crashworthiness within 30 months of enactment. The act required FRA to report to the Congress if it decided, on the basis of the rulemaking proceeding, not to prescribe regulations. FRA reported the results of its investigation to the Congress in September 1996 and referred the matter of locomotive working conditions and crashworthiness to the Advisory Committee. Subsequently, FRA separated the issue of locomotive crashworthiness from the original proposal. As a result, two tasks (one on working conditions and another on crashworthiness) have been assigned to the Advisory Committee.

^bThe Advisory Committee voted to recommend a proposal to the FRA Administrator in November 1996. FRA published a Notice of Proposed Rulemaking on July 3, 1997 and the initial comment period ended on September 15, 1997. FRA issued a Notice of Proposed Rulemaking requesting additional comments on December 12, 1997.

^cThe Rail Safety Enforcement and Review Act required a safety inquiry regarding railroad radio standards and procedures, and FRA committed to revise its rules on the basis of this study.

^dThe Advisory Committee voted to recommend a proposal to the FRA Administrator in April 1997. FRA published a Notice of Proposed Rulemaking on June 26, 1997, and the comment period ended on August 25, 1997.

^eUnder the Regulatory Flexibility Act, agencies periodically review existing and proposed regulations that have or will have a significant economic impact on a substantial number of small entities. The Advisory Committee will review existing and proposed regulations for their appropriate applicability to tourist and historic railroads.

Source: GAO's analysis.

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