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The Honorable Corrine Brown
Chairwoman, Subcommittee on Railroads,
Pipelines, and Hazardous Materials
Committee on Transportation and Infrastructure
House of Representatives

Subject: *Railroad Safety—Responses to Posthearing Questions*

Dear Madam Chairwoman:

This letter responds to your request that we provide responses to questions related to our recent testimony before your subcommittee on reauthorizing federal rail safety programs.¹ Our testimony discussed how the Federal Railroad Administration (FRA) (1) focuses its efforts on the highest priority risks related to train accidents in planning its oversight, (2) identifies safety problems on railroad systems in carrying out its oversight, and (3) assesses the impact of its oversight efforts on safety. This testimony was based on our recent report on these topics.² Your questions, along with our responses, follow.

1. *You mention that the success of many of FRA's initiatives addressing the most common causes of accidents will depend on voluntary actions by the railroads. Why? Is FRA focusing too much on voluntary measures and not enough on mandating regulations?*

A number of FRA's current safety initiatives do rely to a great extent on voluntary actions by the railroads. For example, the close call reporting system³ will depend for its success on extensive participation by railroads. As we reported in January, one railroad has committed to participate in this pilot project in one rail yard, and, according to FRA, two others have expressed strong interest. In addition, FRA's efforts to develop a model to address the problem of worker fatigue depend on the extent to which railroads eventually use this model to improve train crew scheduling practices. Also, the agency emphasizes achieving compliance from railroads voluntarily and takes enforcement action only in a small percentage of cases of

¹GAO, *Rail Safety: The Federal Railroad Administration Is Better Targeting Its Oversight, but Needs to Assess the Impact of Its Efforts*, [GAO-07-390T](#) (Washington, D.C.: Jan. 30, 2007).

²GAO, *The Federal Railroad Administration Is Taking Steps to Better Target Its Oversight, but Assessment of Results Is Needed to Determine Impact*, [GAO-07-149](#) (Washington, D.C.: Jan. 26, 2007).

³According to FRA, a close call represents a situation in which an ongoing sequence of events was stopped from developing further, preventing the occurrence of potentially serious safety-related consequences.

noncompliance found. We have not directly compared FRA's emphasis on voluntary actions with that of other modal administrations. For example, the Federal Aviation Administration has emphasized partnership with industry through programs that allow participants, such as airlines or pilots, to self-report violations of safety regulations and potentially mitigate or avoid civil penalties or other legal action. In the end, what is important is whether FRA is able to demonstrate, through the use of performance measures and evaluations of effectiveness, that its initiatives are effective in improving safety and are superior in terms of costs and benefits to other safety regulatory interventions.

2. What percentage of railroad operations is FRA able to inspect each year?

FRA estimates that it is able to inspect about 0.2 percent of railroad operations each year. See also the response to question 6 for a discussion of this issue and question 3 for an approach that could extend the reach of safety efforts.

3. You state that FRA inspections are not designed to determine how well railroads are managing safety risks throughout their systems. What should FRA and its inspectors be doing differently?

For the most part, FRA inspections determine whether railroads are complying with various safety standards, such as those related to track and equipment condition, and its inspections are targeted at locations where accidents have occurred or previous inspections have identified problems. A complementary approach to these compliance inspections is oversight of risk management, which can help to prevent accidents. Risk management can be described as a continuous process of managing—through the systematic identification, analysis, and control of risks associated with such hazards—the likelihood of their occurrence and their negative impact.⁴ Oversight of risk management can provide additional assurance of safety beyond that provided by inspections of compliance with minimum safety standards. It can supplement uniform, minimum standards by encouraging or requiring companies to identify and address their unique safety risks. Risk management has been used in the private and public sectors for decades. For example, risk management approaches are being used for public transit and pipeline safety in the United States and for railroad safety in Canada, and the American Public Transportation Association, the Pipeline and Hazardous Materials Safety Administration, and Transport Canada, respectively, oversee these approaches. While FRA has taken some steps in a limited number of areas to encourage risk management in the railroad industry, it does not oversee railroads' overall approach for managing safety risks on their systems.

While we believe that adopting a comprehensive approach to overseeing railroads' management of safety risks can lead to improved safety, we did not recommend that FRA adopt such an approach. FRA is pursuing several initiatives aimed at reducing

⁴A framework for risk management based on industry best practices and other criteria that we have developed divides risk management into five major phases: (1) setting strategic goals and objectives, and determining constraints; (2) assessing risks; (3) evaluating alternatives for addressing these risks; (4) selecting the appropriate alternatives; and (5) implementing the alternatives and monitoring the progress made and the results achieved. See pages 35-39 of [GAO-07-149](#) for further discussion.

accident rates, and these initiatives need time to mature to demonstrate their effects. At the appropriate time, the agency may wish to determine whether additional actions are needed.

4. *In follow-up to some questions at the hearing, has GAO studied, determined, or in any way looked at whether the number of inspectors at the FRA is sufficient?*

We did not assess whether the number of FRA inspectors was sufficient, nor did we assess the degree to which state railroad inspections complement FRA's inspections. However, we did note that the number of these inspectors is quite small compared with the size of the industry. (According to FRA, its inspectors inspect about 0.2 percent of railroad operations each year.)

As discussed both in our January 2007 report and in our testimony statement, the agency's implementation of its new inspection planning approach allows it to better target the greatest safety risks and therefore make more effective use of its inspector workforce. However, the agency's approach to conducting inspections focuses on determining compliance with minimum standards at specific sites visited. Oversight of railroads' management of safety risks throughout their systems could provide FRA with a greater "reach" and understanding of safety overall. However, we did not recommend that FRA adopt such an approach because its current initiatives to bring down the train accident rate need time to demonstrate their effects.

5. *How effective is FRA's safety program compared to the safety programs of other modal administrations?*

We did not attempt to compare the effectiveness of FRA's safety program to that of other modal administrations. Like other modal safety administrations that we have reviewed—the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, and the Pipeline and Hazardous Materials Administration, FRA is relatively small compared to the industry it regulates. However, there are important differences among industries that would require careful study as part of any comparison of effectiveness. For example, the Federal Motor Carrier Safety Administration regulates about 677,000 commercial motor carriers, while FRA regulates fewer than 700 railroads.

6. *In your testimony, you state that FRA inspections cover only two-tenths of one percent all railroad operations. Is this a large enough sample to accurately gauge safety in the railroad industry?*

This is a difficult question to answer because it would require an assessment of not only the absolute number of inspections and resulting problems found, but also the manner in which FRA is deploying its inspectors and any deterrent effect that FRA's inspections and enforcement actions might have. We are encouraged that, in 2005, FRA developed an overall strategy through its National Rail Safety Action Plan for targeting its oversight to areas of greatest risk. We believe that the action plan provides a reasonable framework for guiding these efforts.

We also concluded that FRA needs to (1) do more to measure the direct results of its oversight, such as the extent to which identified safety problems are corrected, and (2) measure the effectiveness of its enforcement program. We made recommendations to this effect and are looking forward to FRA's response. Finally, as discussed earlier (see our response to question 3), adopting a risk management framework could expand the reach of FRA's inspection and enforcement programs.

7. *In your testimony, you state that the FRA does not oversee railroads' management of safety risk, while many other agencies do. Would such oversight improve the safety of railroad operations? Are there any models that the FRA should look at to implement its own program?*

See the response to question 3 for a discussion of this issue.

8. *What should the FRA do to improve its safety enforcement program?*

We found that FRA cannot demonstrate how its inspection and enforcement efforts are contributing to rail safety and that FRA lacks key information, such as measures of the direct results of these efforts, that could help it improve performance. While such measures are not always easy to develop, at least two other modal administrations within the department—the Federal Motor Carrier Safety Administration and the Pipeline and Hazardous Materials Safety Administration—have done so. Coupled with better measures of FRA's direct results is the need to assess the effectiveness of its enforcement approach, especially its use of civil penalties, to understand the degree to which they contribute to improved safety outcomes and to determine whether it should adjust its approach to improve performance. We recommended that FRA (1) develop and implement direct measures of its inspection and enforcement programs and (2) evaluate its enforcement program to provide further information on the program's results and the need for any changes to improve performance.

9. *Based on the small sample of railroad operations that the FRA inspects, and how it inspects them, do you believe that the FRA is in a position to say if the railroads are safe or not?*

See our response to question 6 for a discussion of this topic.

10. *In your testimony, you state that the FRA efforts to improve safety will depend on voluntary action by railroads. Is voluntary action sufficient to improve safety?*

See our response to question 1 for a discussion of this issue.

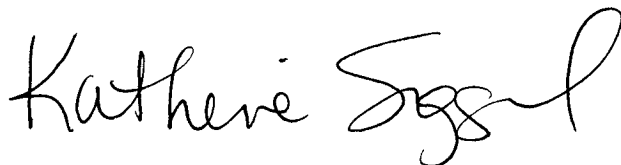
11. *States can play an important role in assisting FRA with ensuring safety along the rail lines. Unfortunately, FRA has been reluctant to allow states to regulate the railroads in order to provide a safe environment for their residents. What role do you feel states should play in assisting with railroad safety and regulation?*

As we noted in our January 2007 report, 30 state oversight agencies participate in a partnership program with FRA to conduct safety oversight activities at railroads' operating sites. About 160 state inspectors work with FRA to conduct inspections and other investigative and surveillance activities as needed. These inspectors are an important supplement to FRA's 400 inspectors, since the size of the railroad industry is quite large. FRA officials have told us that the agency does not provide funding for state inspection activities (except for training and computer equipment) and therefore does not have authority to tell states what inspections to conduct. FRA's regional offices do coordinate inspection activities with participating states in their region.

Our work focused on FRA's activities. We did not assess potential and actual states' roles or FRA's efforts to encourage state participation. If a larger role is envisioned for states, several questions would have to be addressed, including (1) the goals for state participation (e.g., increased safety levels to be achieved), (2) how federal and state efforts would complement each other, (3) what inspection and enforcement authority (e.g., to cite violations) would be allowed; and (4) who would pay for any increase in state inspection presence.

We are making copies of this letter available to others upon request and it will be available at no charge on the GAO Web site at <http://www.gao.gov>. If you have any questions about its content, please contact me at (202) 512-2834 or siggerudk@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this letter. Key contributors to this letter were Judy Guilliams-Tapia and James Ratzenberger.

Sincerely yours,



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