June 19, 2013

RAIL SAFETY

Preliminary Observations on Federal Rail Safety Oversight and Positive Train Control Implementation

GAO Highlights

Highlights of GAO-13-679T, a testimony before the Committee on Commerce, Science, and Transportation, U.S. Senate

Why GAO Did This Study

The rail network is one of America's safest modes of transportation, although several recent rail accidents have reinforced the need for constant effort from the private and public sectors to ensure safety for rail passengers, the public, and railroad employees. FRA, the federal agency responsible for railroad safety, works with freight, commuter, and intercity passenger railroads and certain states to ensure the safety of the U.S. railroad network.

In 2007, FRA developed and implemented a risk-based approach to its safety inspections of the railroad network. In 2008, RSIA was enacted and, among other things, reauthorized FRA's rail safety program and included several new rail safety provisions, such as the implementation of PTC and creation of rail safety risk reduction plans.

This statement discusses GAO's preliminary observations about 1) how FRA oversees rail safety, 2) challenges to rail safety, and 3) PTC implementation by the U.S. rail industry. GAO examined FRA's overall rail safety framework and interviewed state rail safety officials and officials from FRA; selected Class I, II, and III railroads; and Amtrak on rail safety and PTC implementation.

GAO plans to issue reports on reviews of rail safety and PTC in the fall of 2013.

View GAO-13-679T. For more information, contact Susan A. Fleming, 202-512-2834, flemings@gao.gov

What GAO Found

The Federal Railroad Administration (FRA) primarily monitors railroads' compliance with federal safety regulations through routine inspections by individual inspectors at specific sites on railroads' systems. Thirty states also employ railroad safety inspectors, who participate in a partnership program with FRA to conduct supplemental safety oversight activities based on FRA rail safety regulations and enforce state railroad safety laws. FRA applies a quantitative, risk-based approach, the National Inspection Plan, to inform its rail safety oversight efforts using analyses of past accident and inspection data and other information to target inspections in each region. FRA also uses a planning and evaluation tool, the Staffing Allocation Model (SAM), to distribute its inspection resources across each FRA region. However, according to several FRA regional administrators that GAO spoke with, the staffing decisions based on SAM results do not necessarily align with their perspectives on the inspector needs for their regions.

Based on GAO's work to date, there are several potential challenges affecting FRA's rail safety oversight. First, the Rail Safety Improvement Act (RSIA) required FRA to issue regulations requiring certain railroads to submit risk reduction plans within 4 years. FRA has not yet issued a final rule on the plans. Second, FRA does not have a specific plan to replace its aging inspector workforce. According to FRA officials, in the next 5 years, about 32 percent of FRA inspectors will be eligible to retire. Although FRA officials said that they anticipate being able to replace inspectors, it can take 1 to 2 years to find, hire, train, and certify a new inspector. Finally, FRA faces other ongoing and emerging safety challenges like addressing adverse weather conditions and their impact on railroad operations and equipment, educating the public on the potential hazards of rail-highway crossings, accommodating changes in rail safety risks including new freight flows that affect the need for inspections, and hiring and training a specialized inspector workforce to provide adequate safety oversight for emerging technologies including positive train control (PTC), a communications-based system designed to prevent train accidents caused by human factors.

GAO's work to date indicates that railroads may not be able to fully implement PTC by the 2015 deadline established in RSIA. This is because of the many interrelated challenges caused by the complexity and breadth of PTC implementation. For example, PTC components, such as the back office servers, which are needed to communicate vital information between locomotives and wayside signals, are still under development. In addition, the need to integrate PTC components and field test the system is a time- and resource-consuming process. Finally, some railroads had concerns with FRA's limited resources and ability to verify field testing and certify the system once it is fully implemented. Officials from freight railroads and FRA stated they will not compromise PTC safety functions and will ensure PTC is implemented to meet the requirements of the RSIA mandate. However, in attempting to implement PTC by the 2015 deadline, railroads may be making choices that could introduce financial and operational risks. For example, freight railroad representatives told us that without adequate time for field testing, PTC systems could potentially malfunction or fail more frequently, causing system disruptions.