

## **2. SURFACE TRANSPORTATION SAFETY**

Surface transportation – motor vehicle, large truck, railroad, and pipeline transportation – accidents in the United States continue to account for over 42,000 fatalities annually. In 1999, over 36,000 fatalities resulted from motor vehicle accidents not involving large trucks, over 5,000 resulted from crashes involving large trucks, and over 1,000 resulted from railroad, rail transit and pipeline accidents. While down from the over 46,000 fatalities a decade ago, the number of surface fatalities remains high, and the Department needs to continue its efforts on reducing fatalities.

- Motor vehicle fatalities continue to take a heavy toll on American families, accounting for over 85 percent of all transportation-related fatalities. Alcohol-related accidents claim the biggest number of highway fatalities, about 16,000 in 1999 down from 25,000 in 1982. Other factors influence highway fatalities such as defects in motor vehicles and motor vehicle equipment. One example is the recent tire defects, which have been implicated in 148 deaths and over 500 injuries.
- The Secretary set Department goals in May 1999 to reduce large-truck related injuries by 20 percent by the end of 2008 and large-truck related fatalities by 50 percent by the end of 2009. The 1999 number of injuries and fatalities involving large trucks increased to 142,000 injuries while fatalities remained relatively constant at 5,362 fatalities (although the fatality rate per 100 million miles traveled declined modestly due to the increase in commercial miles traveled). The 1999 goals of reducing injuries to 126,000 and fatalities to 4,988 were not achieved. The 2000 goals are 125,000 injuries and 4,934 deaths.
- More than 900 people were killed in railroad accidents in 1999, divided about evenly between deaths from crossing accidents and deaths from trespassing. Collisions, derailments, and other accidents on mass transit, including commuter rail, heavy rail, and bus service, account for an additional 300 deaths each year.
- There are roughly 300 million hazardous materials shipments in the Nation each year, and the vast majority of these shipments arrive at their destinations safely. For the first 7 months of 2000, there were 9,310 reported incidents involving these shipments, but only 233 involved fatalities, hospitalization, road closure, or evacuation of 6 or more people. Although the number of incidents is low in comparison to the number of shipments, the potential for catastrophic incidents, such as the 1996 ValuJet crash that killed 110, makes this an area that warrants continued vigilance.

- The Nation's more than 2 million miles of pipelines transport natural gas, crude oil, and refined petroleum products to industry, residences, and other users. These pipelines include 156,000 miles of hazardous liquid interstate pipelines, 325,000 miles of natural gas interstate pipelines, and 1.7 million miles of natural gas intrastate pipelines. Pipeline transportation is very safe; however, about 350 pipeline accidents are reported each year. Included in this number are rare catastrophic incidents, such as the August 2000 explosion in Carlsbad, New Mexico, in which a 30-inch natural gas pipeline violently ruptured resulting in 12 fatalities, illustrate the need for improved pipeline safety.

Our work has identified five areas in surface transportation safety. They are motor vehicle safety, motor carrier safety, railroad safety, hazardous materials safety, and pipeline safety.

## **MOTOR VEHICLE SAFETY**

### **Progress in the Last Year:**

- Congress enacted and the Department supported legislation that will help prompt states to adopt a standard of .08 Blood Alcohol Concentration to reduce alcohol-impaired driving and save lives. States not adopting the standard will face highway-funding restrictions beginning in FY 2004.
- Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act which is designed to enhance National Highway Traffic Safety Administration's (NHTSA) ability to identify and investigate potential defects in vehicles and equipment by establishing additional reporting requirements for manufacturers, increasing civil penalties, and establishing criminal penalties.

### **Most Significant Open Recommendations and Issues:**

- Despite the combined efforts of Federal, state, and local governments, seat belt use rates have remained relatively constant, ranging from 66 to 70 percent since 1993. Preliminary 2000 seat belt use rates are at 71 percent nationwide, below the national goals of 85 percent for 2000 and 90 percent for 2005. NHTSA is unlikely to reach and sustain its goals unless it focuses technical assistance efforts on evaluating seat belt programs to determine their effectiveness and encouraging the use of those programs that are working. The states are using a variety of approaches to increase seat belt use, including partnerships, educational and enforcement campaigns, and primary and secondary enforcement laws. Primary enforcement means a police officer can stop a vehicle and issue a citation when the officer observes the driver or a

passenger violating the state's seat belt law. Secondary enforcement means that a citation for violating a state's seat belt law can only be written after a police officer stops the vehicle for another infraction. Primary enforcement laws, adopted by 17 states and the District of Columbia, are highly controversial because of concerns about individual rights and racial profiling. Forty-nine states and the District of Columbia have adopted seat belt use laws.

- Early identification of defects by NHTSA's Office of Defects Investigation (ODI) can be improved. During the hearings on the Firestone tire recall, Congress raised questions as to the preparedness of ODI for handling information that may contain early warning signs of product defects. Significant gaps exist in identifying potential defects because ODI relies on consumer complaints in determining whether a safety problem warrants investigation. These data are not comprehensive or reflective of the nature and extent of potential safety defects. Other NHTSA databases, such as the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS), and other sources of information, such as manufacturer warranty claims, lawsuits, insurance claims data, and news articles are not routinely used by ODI to determine whether a potential defect warrants investigation.
- The TREAD Act requires NHTSA to conduct 10 rulemakings in the areas of defects, tires, and rollover tests. For example, by June 2002, NHTSA is required to complete a rulemaking establishing early warning reporting requirements for motor vehicle and equipment manufacturers, including the reporting of all incidents to NHTSA involving fatalities or serious injuries alleged or determined to be caused by a possible defect. Six of the 10 rulemakings must be completed in 2001 or 2002. Since OIG found that it takes DOT, on average, 3.8 years to complete a rule, significant management effort will be required to issue these rules in a timely manner, as required by the Act.

## **MOTOR CARRIER SAFETY**

### **Progress in the Last Year:**

- Following the Motor Carrier Safety Improvement Act of 1999, the Department established the Federal Motor Carrier Safety Administration (FMCSA) in January 2000. FMCSA increased enforcement activity – the number of compliance reviews performed as well as the number of enforcement cases initiated.

- FMCSA strengthened its oversight of the states' Commercial Driver's License (CDL) Program by developing a program to test the actual operation of state systems and to train FMCSA employees who conduct oversight reviews of state systems.
- DOT formed a panel of experts to review the CDL Program scandals in Illinois and Florida. These states have been the subject of ongoing Federal investigations resulting in more than 38 people being charged in schemes to sell CDLs to unqualified applicants. The panel made recommendations to address vulnerabilities in both states' CDL systems that contributed to the illegal activity.
- In April 2000, FMCSA issued a Notice of Proposed Rulemaking to reform the 63-year-old hours-of-service regulation for commercial truck and bus drivers. The proposed rule would reduce the driving time allowed within a 24-hour period from the current maximum of 16 hours to 12 hours and would require use of on-board electronic recorders to document hours of duty. The trucking and bus industries strongly oppose the proposed rule. FMCSA held extensive hearings and roundtable discussions, and extended the comment review process to December 15, 2000. The FY 2001 Transportation Appropriations Act prohibits the Department from adopting a final rule in FY 2001.
- On August 22, 2000, FMCSA issued a regulation prohibiting motor carriers found to be unfit from operating commercial vehicles in interstate commerce and establishing an unsatisfactory safety rating as a determination of unfitness. FMCSA also issued a final rulemaking in December 2000 that allows it to shut down motor carriers who do not pay the civil penalties assessed for violating safety regulations.
- FMCSA issued a Notice of Proposed Rulemaking addressing "camioneta" van operations on January 11, 2001. The proposed rule would apply to 9-15 passenger vans conducting service for direct payment over distances greater than 75 miles. This rulemaking was required by the Motor Carrier Safety Improvement Act of 1999
- FMCSA and NHTSA initiated a pilot study to determine the causes of serious large-truck crashes. FMCSA will use the results of the study to identify effective countermeasures for reducing the occurrence and severity of crashes.
- Congress approved the Department's budget request for 20 additional border inspectors. These inspectors will perform safety inspections on Mexican trucks entering the United States to ensure they comply with U.S. safety regulations.

**Most Significant Open Recommendations and Issues:**

- Since January 2000 key FMCSA leadership positions have remained unfilled, including the Associate Administrator for Policy and Program Development and Associate Administrator for Enforcement and Program Delivery. However, these two positions were filled on December 31, 2000, by moving two Senior Executives within FMCSA. The Motor Carrier Safety Improvement Act of 1999 provides the Department with the tools needed to improve motor carrier safety, so filling key leadership positions and implementing the new law will be the subject of keen interest. Strong enforcement, including shut down orders, is needed for the minority of carriers that are egregious offenders and a risk to public safety, but educational/outreach efforts are perfectly appropriate where they work. A multifaceted approach is needed.
- FMCSA needs to expedite rulemaking actions to realize the benefits of the many safety initiatives provided by the Motor Carrier Safety Improvement Act of 1999. Congress provided the requisite funding to implement these many safety initiatives, which include enhancements to the CDL Program and additional civil penalties and sanctions for noncompliance with safety regulations. FMCSA identified 29 rulemakings in the new Act, including 6 Congress mandated to be issued by December 9, 2000. Three of the six rules were completed by the deadline. Since we found it takes DOT on average 3.8 years to complete a rule, significant management effort will be needed to ensure all of the safety initiatives are timely implemented.
- Scandals and scams involving CDLs are occurring at an alarming rate. Investigations in Illinois and Florida led to 34 convictions, and at least 9 deaths were traced to drivers who illegally obtained CDLs in Illinois. Other state CDL programs are vulnerable; work thus far has shown problems in the states of Georgia and North Carolina. Improved Federal oversight of the CDL program will help ensure that controls over the states' testing and licensing of commercial drivers preclude unqualified individuals from receiving commercial licenses.
- Driver hours-of-service violations and falsified driver logs continue to pose significant safety concerns. Research has shown that fatigue is a major factor in commercial vehicle crashes. During roadside safety inspections, the most frequent violation cited for removing a driver from operation is exceeding allowed hours of service. Use of electronic recorders and other technologies to manage the hours-of-service requirements has significant safety value. FMCSA's April 2000 proposed rulemaking would revise the hours of service by reducing the driving time allowed within a 24-hour period and by phasing in, over a period of years, the use of on-board electronic recorders to document

drivers' hours of service. The Congress prohibited the Department from adopting a final rule during FY 2001. FMCSA management should use this time to consider all of the comments received and revise the proposed rule as appropriate.

- An increase in the number of Federal border inspectors correlated with a reduction in the number of Mexican trucks entering the United States that were placed out of service for significant safety violations. During FY 2000, 40 inspectors were at the border compared to 13 in FY 1998. For FY 2000, FMCSA's database shows that overall 35 percent (Arizona 39 percent, California 25 percent, New Mexico 28 percent, and Texas 39 percent) of the inspected Mexican vehicles were placed out of service for significant safety violations, compared to 39 percent in FY 1999. The U.S. national vehicle out-of-service rate was 25 percent for FY 1999 and 24 percent for FY 2000. Although 20 additional inspectors are scheduled to be on board in January 2001, there are still significant shortfalls in Federal border inspection staffing and facilities. In 1998, we estimated that 126 inspectors were needed during port operating hours to provide 2 inspectors to each inspection facility plus additional inspectors that are needed for high-volume ports.
- Mexico-domiciled motor carriers are operating improperly in the United States and violating U.S. statutes, either by not obtaining the required operating authority or by operating beyond the scope of their authority. During FY 1998, we found 52 Mexican motor carriers that were operating improperly in 20 states outside the 4 southern border states, and we also found 202 Mexican motor carriers operating improperly beyond the commercial zones within the border states. The additional inspectors at the ports of entry increased the number of enforcement cases against Mexican motor carriers operating improperly. Also, the Motor Carrier Safety Improvement Act of 1999 provided for significant increases in penalties, suspension and revocation of operating authority, and placing vehicles immediately out of service for operating authority violations. The provisions of this legislation need to be implemented expeditiously.

## ***RAILROAD SAFETY***

### ***Progress in the Last Year:***

- DOT's program for reducing railroad-highway grade crossing accidents and fatalities by 50 percent over a 10-year period continues to make progress. Through 1999 (6 years since program inception), the number and rate of rail crossing accidents have decreased by 29 percent (from 4,892 to 3,489) and 39 percent (from 7.97 to 4.90), respectively.

### **Most Significant Open Recommendations and Issues:**

- A significant safety need, shared by Amtrak and the commuter railroads serving Penn Station-New York is the \$898 million fire and life safety program needed to bring the rail tunnels up to contemporary standards. For example, several of the current evacuation routes include narrow 10-flight spiral staircases that simultaneously serve as entranceways for emergency workers. Amtrak, the States of New York and New Jersey, and the Federal Government must develop an action plan for adequately and expeditiously funding these fire and life safety projects. It is essential that any funds made available for life safety needs be safeguarded to ensure that they are used only for that purpose.
- Because of the importance of data for enforcement of safety standards, Representative Oberstar requested the Office of Inspector General to review the full range of safety-related data gathered by the Federal Railroad Administration (FRA). Historically, FRA has relied almost entirely on individual inspectors to subjectively select the location and frequency of site inspections, reflecting inspector priorities, personal knowledge, and experience. While site inspections are but one element of FRA's safety inspection strategy, FRA management and inspectors could make greater use of prior inspection data contained in the inspection database for planning purposes, such as selecting inspection sites and coordinating inspections.
- Our work found positive attributes in FRA's close partnerships with railroads under the Safety Assurance and Compliance Program (SACP) for identifying safety-related deficiencies, but also found shortfalls in follow up and enforcement of identified safety deficiencies such as widespread track defects. After 5 years of experience with the SACP program, it is time to assess its long-term costs and benefits. A reduction in railroad-related fatalities has been achieved, but nationwide train accidents have increased during the past 3 years, and FRA has not met its accident and injuries goals. Specifically, SACP identified deficiencies in CSXT track but were not effective in ensuring corrections were made. The rate of CSXT track-related accidents more than doubled from 1995 to 1999, even though the railroad implemented a Safety Action Plan in 1997. This is particularly problematic because Amtrak uses CSXT track for some of its passenger service.
- The numbers of grade crossing accidents and fatalities have decreased significantly. Additional improvements in grade crossing safety are becoming increasingly difficult to achieve because many of the most hazardous crossings have already been upgraded or closed. To help achieve DOT's accident and fatality reduction goals, DOT and FRA have begun to encourage the implementation of three cost-effective strategies: installation of median

barriers, use of well-advertised photo enforcement particularly at problematic crossings, and imposition of stricter penalties to deter drivers from ignoring signals and bypassing existing safety devices. In order for FRA to actually achieve its accident and fatality reduction goals, the states and railroads need to use these cost-effective strategies.

## **HAZARDOUS MATERIALS SAFETY**

### **Progress in the Last Year:**

- The Hazardous Materials Program Evaluation (HMPE) recognized that improved program coordination would contribute to the safer transport of hazardous materials. The Secretary addressed the HMPE recommendation by creating an office under the Associate Deputy Secretary and Director, Office of Intermodalism, that will serve as the focal point to better administer the Department's hazardous materials program. The Secretary signed a delegation of authority to improve hazardous materials program coordination.

### **Most Significant Open Recommendations and Issues:**

- The Department needs to ensure the effective implementation of the Hazardous Materials Program Evaluation recommendations. Shippers have historically received less attention than warranted, based on inspection results, even though shippers are the entry points for hazardous materials in commerce. The current process focuses on carriers. The Department needs to deploy, train and coordinate its diverse, hazardous materials inspection and enforcement resources in order to focus them on specific problem shippers, and on human error problems that carriers and shippers have in common, regardless of the mode of transport involved. FAA, FRA, FMCSA, Coast Guard, and the Research and Special Programs Administration (RSPA) are the affected agencies.

## **PIPELINE SAFETY**

### **Progress in the Last Year:**

- RSPA issued a final rulemaking on November 3, 2000, requiring operators of large hazardous liquid pipelines (those with 500 or more miles of pipeline) to assess the integrity of all pipeline segments that could affect high consequence areas, through internal inspection, pressure testing, or other equally effective



means. Under the final rulemaking, operators must complete assessments within 7 years, with a continual re-inspection interval of every 5 years.

**Most Significant Open Recommendations and Issues:**

- The Department needs to complete the development of a geographic information system showing the location of hazardous liquid and natural gas pipelines and establish inspection frequencies for natural gas pipelines—these requirements were established by the Congress 8 years ago, but still need to be completed. The Department also needs to train RSPA inspectors to understand and evaluate advanced pipeline inspection technologies and an operator’s qualification program; and work with Congress on the pipeline program reauthorization.
- During 2000, the House considered and the Senate passed different versions of a pipeline reauthorization bill; these differences will need to be revisited in 2000. Additionally, on November 3, 2000 the President directed the Secretary to develop and implement a comprehensive plan to improve pipeline safety nationwide in five areas:
  1. **Improve pipeline safety standards** by issuing a final rulemaking defining high consequence areas in which hazardous liquid pipeline operators must develop and follow integrity management plans; and begin implementing no later than January 15, 2001, a comprehensive plan for further improving hazardous liquid and natural gas pipeline safety standards. RSPA issued a final rulemaking on Integrity Management for large hazardous liquid pipelines (those with 500 or more miles of pipeline) on November 3, 2000, requiring operators to assess the integrity of all pipeline segments that could affect high consequence areas. RSPA is hosting public meetings in anticipation of an integrity rule for natural gas transmission pipelines. The assessments are to be performed using internal inspection, pressure testing, or other proven, equally effective means.

In addition, on December 8, 2000, RSPA issued the final rule “Pipeline Safety: Areas Unusually Sensitive to Environmental Damage,” which identifies the high consequence areas within which pipelines are to be inventoried so that the assessments can be performed. However, RSPA is using the voluntary National Pipeline Mapping System in lieu of regulations requiring an inventory in high consequence areas. In addition, RSPA has not issued long overdue safety rules addressing small hazardous liquid pipeline operators (less than 500 miles) or any natural gas transmission pipelines.

2. **Strengthen enforcement of pipeline safety laws and regulations** by assessing the efficacy and current use of all enforcement tools available to the Office of Pipeline Safety and developing a policy designed to ensure strong, consistent, and effective enforcement of pipeline safety standards and compliance.
3. **Enhance Federal-state partnerships** by issuing guidelines outlining opportunities and responsibilities for states to participate in the oversight of interstate pipelines, including new construction, incident investigation, and additional oversight of interstate pipeline transportation.
4. **Provide the public with better information and opportunities to participate** by initiating activities that expand public participation in pipeline decisions and provide increased access to natural gas and hazardous liquid pipeline data and information.
5. **Support research and development of innovative pipeline safety technologies** by initiating a process to seek advice and consultation from other Federal and state agencies, academia and research institutions, industry, pipeline safety advocates, environmental organizations, and other stakeholders on the development and implementation of a cooperative program of research and development. The program should establish research priorities, coordinate and leverage funding, and maximize efforts to ensure pipeline integrity.

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## **2. Surface Transportation Safety**

**Dark Grey** = Top Priority Task for 2001

**Light Grey** = Include in 2001 Top Management Challenges Efforts

**White** = Sufficiently Resolved to be Dropped from Management Challenges Efforts

**First Year Issue  
Raised in OIG  
Management  
Challenges  
Report**

**Was Significant  
Progress made  
in last year?**

<ul style="list-style-type: none"> <li>Strengthen Federal oversight to ensure that states take timely action to disqualify commercial drivers who commit Federal disqualifying offenses.</li> </ul>	1999	N
<ul style="list-style-type: none"> <li>Take prompt and meaningful enforcement action against carriers that do not comply with Federal Motor Carrier Safety Regulations.</li> </ul>	1999	N
<ul style="list-style-type: none"> <li>Improve the motor carrier safety program for vehicle maintenance, driver qualifications, and compliance with hours-of-service requirements.</li> </ul>	1999	N
<ul style="list-style-type: none"> <li>Continue revising the hours-of-service regulations for commercial truck and bus drivers.</li> </ul>	1999	Some
<ul style="list-style-type: none"> <li>Increase the level of safety oversight for commercial trucks and drivers entering the United States from Mexico.</li> </ul>	1999	Some
<ul style="list-style-type: none"> <li>Make further safety improvements at highway-rail grade crossings by targeting limited resources to proven, cost-effective strategies and addressing railroad trespassing accidents.</li> </ul>	1999	N
<ul style="list-style-type: none"> <li>Implement Hazardous Materials Program Evaluation Report recommendations to better coordinate hazmat resources to place greater emphasis on shippers, develop strategies to reduce human error as a cause of hazardous materials incidents, and review and analyze existing databases to improve data quality.</li> </ul>	1999	Some
<p>environmental damage from a pipeline accident.</p>		
<ul style="list-style-type: none"> <li>Revise the strategy for increasing seat belt usage.</li> </ul>	New Issue	New Issue

completing all rulemakings by the congressional deadline.	New Issue	New Issue
filling key FMCSA vacancies, expeditiously completing rulemakings, and issuing internal policies and procedures.		
<ul style="list-style-type: none"> <li>Strengthen oversight to ensure that states improve the testing and licensing processes for CDLs.</li> </ul>	New Issue	New Issue
<ul style="list-style-type: none"> <li>Ensure that Amtrak, the states of New York and New Jersey, and the Federal Government develop an action plan for addressing the nearly \$900 million in unfunded fire and life safety projects in the rail tunnels approaching Penn Station-New York.</li> </ul>	New Issue	New Issue
<ul style="list-style-type: none"> <li>Increase FRA's use of the railroad safety inspection database for selecting inspection sites and coordinating Federal and state inspections.</li> </ul>	New Issue	New Issue
<ul style="list-style-type: none"> <li>Develop and implement an action plan to improve pipeline safety in five areas addressed by the President's memorandum dated November 3, 2000.</li> </ul>	New Issue	New Issue