TRUCK SAFETY

Need to Better Ensure Correction of Serious Inspection Violations
In response to your request, this report evaluates federal and state efforts to improve truck safety by keeping trucks and drivers with out-of-service violations off the nation's highways.

Unless you publicly announce its contents earlier, we plan no further distribution of this report for 7 days from the date of this letter. At that time, we will send copies to the Secretary of Transportation; the Director, Office of Management and Budget; the Administrator, Federal Highway Administration; and other interested parties.

This work was performed under the direction of Kenneth M. Mead, Director, Transportation Issues, who can be reached at (202) 275-1000. Other major contributors are listed in appendix II.
Executive Summary

Purpose
In 1989 state personnel conducted 1.3 million commercial motor vehicle inspections as part of the Motor Carrier Safety Assistance Program (safety program) and ordered 474,000 vehicles and 92,000 drivers out of service. Out-of-service orders record vehicle mechanical defects and driver deficiencies deemed so serious that the truck and driver cannot legally continue the trip until these problems are corrected. The House Committee on Public Works and Transportation and its Subcommittee on Surface Transportation asked GAO to determine if out-of-service violations are actually corrected before cited trucks and drivers return to the nation's highways. This report analyzes (1) the effectiveness of Federal Highway Administration (FHWA) and state efforts to determine the extent to which out-of-service trucks and drivers may be returning to the road without making required corrections; (2) FHWA and state actions taken to ensure that serious violations are properly corrected; and (3) other actions that can be taken to ensure serious violations are corrected.

Background
In 1982 the Congress authorized the safety program to improve highway safety by detecting and correcting commercial motor vehicle and driver violations through increased roadside inspections. These focus on serious mechanical violations such as defective brakes and driver violations such as driving too many hours. Forty-seven states participate in the safety program and funding has grown from $8 million in 1984 to $47 million in 1990.

The states have three internal control procedures available to determine if inspections are actually keeping potentially dangerous trucks and drivers off the road. The first control (reinspection) is completed immediately after violation correction to see if out-of-service violations were properly corrected. The second (verification) is similar, except that the correction is checked at a later time, usually at the motor carrier's terminal. The third (carrier certification) occurs when the carrier certifies that corrections are properly made by signing and returning the inspection form to the inspecting state. FHWA regulations require that carriers return the certified forms and that states monitor their return; states' use of the other two controls is voluntary.

Results in Brief
FHWA and the states do not know the extent of noncompliance with out-of-service orders. Preliminary results from FHWA-funded studies involving 940 vehicles in five states showed an overall noncompliance rate of 12 percent. Individual state rates varied from 9 to 53 percent.
Executive Summary

The studies also indicated that drivers left unattended at inspection sites are more likely to continue their trips without correcting out-of-service violations. GAO believes that detection of serious violations means little unless they are properly corrected.

FHWA has limited ability to enforce the required carrier certification control because of the voluntary nature of the program. FHWA and state emphasis has been primarily on increasing roadside inspections to detect violations, with little follow-up to see that these violations are corrected. GAO questionnaire results from 47 state safety program coordinators indicated that most states did not make adequate use of the controls to ensure compliance with out-of-service orders. Only five states had used all three of the control procedures.

FHWA and the states can also take other actions to follow up on out-of-service violations. For example, Safetynet, FHWA's management information system for nationwide inspection and accident data, has provided only about 40 percent of the 1988 and 1989 inspection data available on carriers because of software, hardware, and data-entry problems at both the state and federal levels. State and federal officers need timely, complete Safetynet data to better focus compliance efforts on carriers with poor safety records. In addition, most visits to carriers by inspectors to perform reviews rating overall safety of operations, and to do more in-depth audits, do not include verification to ensure violation corrections. Using verification during safety reviews and other carrier visits would better utilize program resources and could improve compliance with out-of-service orders.

Principal Findings

Little Is Known About Noncompliance Rates

FHWA funded small studies in five states—Idaho, Maine, Michigan, Oklahoma, and Wisconsin—to determine how often drivers continue their trips without correcting out-of-service violations. The highest noncompliance rate (53 percent) was found in Maine, which concentrated on drivers left unattended after the inspection facility closed. Similarly, Michigan's study found a 16 percent noncompliance rate for drivers left unattended compared to a 2 percent rate for those at open facilities. The Idaho study, based on a larger percentage of inspections at facilities staffed around the clock (where drivers were under some scrutiny),
showed the lowest overall noncompliance rate (9 percent). GAO's questionnaire results showed that up to 74 percent of inspections occur at facilities not staffed around the clock, which increases the number of drivers left unattended and the potential for noncompliance.

Limited State Compliance Efforts

FHWA has emphasized conducting inspections to detect vehicle defects and driver violations but has done little to encourage states to use reinspection and verification compliance controls and has not enforced the required carrier certification control. FHWA officials stated that uncertainty over the extent of noncompliance, large increases in the number of inspections, and lack of state personnel were the primary reasons for not enforcing carrier certification or encouraging use of the other two controls.

Questionnaire results also showed that while most states used at least one control, such efforts were sporadic and limited in numbers. As of December 1989, 27 states had performed limited reinspections, but only 9 of them classified their efforts as continuous. Fifteen states verified correction at the terminals on a limited basis, and 17 states consistently tracked carrier certification and notified those not certifying as required by FHWA. Only five states had used all three controls; six others had not used any of them.

States have limited resources and cannot reinspect all out-of-service violations. FHWA is limited in what it can require of states since the safety program is voluntary. However, GAO believes that greater use of the controls would help states identify noncompliance, the conditions under which it most often occurs, and the control(s) that will most effectively discourage it.

Other Actions to Increase Compliance

FHWA and states need to complete Safetynet. Only about 40 percent of the 1988 and 1989 inspection data are available to FHWA and state officials because of multiple problems at both levels. As a result, inspection data to help identify unsafe trucking firms and to effectively deploy enforcement personnel are not available from all states. FHWA could enhance Safetynet development by assisting the states that do not provide complete and timely inspection data.

Also, 31 states perform safety reviews at carrier terminals, but usually do not perform verification of out-of-service violations during these reviews. FHWA prefers that safety reviews be primarily educational.
Executive Summary

However, program resources could be more effectively used by combining these activities—even though it could mean enforcement actions for violations of out-of-service orders discovered during verification. States currently have widely varying monetary penalties for noncompliance and know little about penalty enforcement. All states, however, must adopt Commercial Drivers License provisions disqualifying an operator's license for certain offenses. GAO believes adding out-of-service order violations to these provisions would provide a more uniform penalty and an additional incentive for compliance.

Recommendations

GAO recommends that the Secretary of Transportation direct the Administrator, FHWA, to take the following actions:

- Encourage greater state use of the control procedures, including using reinspection and verification on a sample of out-of-service violations and carrier certification for all of these violations, by setting aside program funds for this purpose or withholding funds for states failing to do so within a reasonable time frame.
- Require FHWA inspectors and encourage state inspectors to make verification of a sample of out-of-service orders a standard part of all carrier terminal visits.
- Work with states not transmitting reasonably complete and timely Safetynet inspection data to overcome implementation problems.
- Add noncompliance with out-of-service orders to offenses listed in federal regulations that require driver's license disqualification.

Other recommendations are made in chapter 3.

Agency Comments

As requested, GAO did not obtain official agency comments on a draft of this report. However, GAO discussed the report's contents with FHWA officials and they generally agreed. GAO incorporated clarifying comments as appropriate. FHWA officials provided GAO a March 1990 memo describing Safetynet actions they are taking, including possible loss of safety program funding and additional reporting requirements, to encourage full Safetynet participation. GAO's recommendation reflects FHWA actions.
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Abbreviations

CDL Commercial Driver’s License
CVSA Commercial Vehicle Safety Alliance
DOT Department of Transportation
FHWA Federal Highway Administration
GAO General Accounting Office
MCSAP Motor Carrier Safety Assistance Program
Chapter 1

Introduction

In the United States more people die each year in accidents involving commercial motor vehicles than in accidents involving airplanes, trains, and ships combined. Since 1981, large trucks have been involved in about 330,000 serious accidents annually, resulting in 4,500 fatalities and economic losses estimated at $6 billion per year. Such accidents may have numerous contributing factors, but many are caused by driver violations, mechanical defects, or a combination of these factors. Although large trucks account for only 4.5 percent of vehicle miles driven, they represent 10 percent of all highway fatalities. To address the problem of large truck accidents, the Congress authorized the Motor Carrier Safety Assistance Program (MCSAP) in the Surface Transportation Assistance Act of 1982.

Trucking Industry and Federal Safety Regulations

The trucking industry in the United States includes approximately 185,000 motor carriers that have annual gross revenues of more than $225 billion. These carriers have an estimated 3.6 million trucks having gross vehicle weight ratings of over 10,000 pounds. These trucks travel more than 100 billion miles annually.

The federal government has regulated the motor carrier industry for over 50 years. The Federal Highway Administration (FHWA) of the Department of Transportation (DOT) established safety regulations affecting the operation of motor carriers in interstate and foreign commerce. Federal safety regulations include standards for vehicles and drivers. Under MCSAP, FHWA and the states have worked to increase the uniformity in state regulations for interstate carriers and states have adopted most of the federal regulations, although some rules may differ for intrastate carriers.

FHWA regulations prohibit motor carriers from operating vehicles in interstate commerce unless they are properly equipped with the required parts and accessories. These requirements include standards for axles, brake and steering systems, frames and frame assemblies, tires, lights, and other parts and accessories.

About 5 million people drive trucks in interstate and foreign commerce. FHWA regulations require these drivers to (1) be in good physical health as certified by a medical certificate, (2) be at least 21 years old, (3) pass a driver's road test, (4) have a valid license with safe driving record, (5) comply with alcohol and drug prohibition rules, and (6) follow numerous other safety regulations.
Interstate drivers and motor carriers must also comply with FHWA hours-of-service requirements. For example, a driver may not operate a commercial vehicle after he or she has driven for 10 hours or has been on duty for 15 hours (following 8 consecutive hours off duty). A driver must keep a record (or log) of duty status for each 24-hour period. In September 1988 FHWA issued a rule allowing the optional use of certain automatic on-board recording devices for recording a driver’s duty status, in lieu of the handwritten log.

**MCSAP Developed to Improve Truck Safety**

FHWA’s Office of Motor Carrier Safety, Field Operations, administers MCSAP; its State Program Division works closely with states to encourage their involvement. The program’s purpose is to reduce accidents by increasing roadside inspections and enforcement activities. These activities increase the likelihood that safety defects, driver deficiencies, and unsafe carrier practices will be detected and corrected. In addition to the roadside inspections done under MCSAP, FHWA also requires that drivers frequently conduct “walk around” inspections of their vehicles and has recently required carriers to ensure annual inspections are done on all commercial vehicles.

Authorized funds for MCSAP inspection activity have grown from $8 million in 1984 to $47 million in 1990, with participating states providing a 20 percent match of funds and maintaining preexisting levels of spending for truck inspection programs. FHWA basic funding to the states implementing MCSAP ranges from $225,000 to $2.5 million annually, based on factors such as road mileage, vehicle miles traveled, number of commercial vehicles, population, and special fuel consumption. FHWA also provides additional discretionary MCSAP grants to states, subject to a separate approval process.

Although MCSAP funding provides states some incentive to remain in the program and to follow FHWA guidance, FHWA is sometimes limited in what it can actually require states to do. Because states are not required to participate in MCSAP, FHWA must rely heavily upon federal-state cooperation. As a result, FHWA provides guidance to states without insisting on absolute uniformity in all matters.

Seventeen states reported doing inspections under MCSAP in 1984, but by 1989 the number had grown to 45 states. Only South Dakota, Florida, and Texas were not in the program, and Alaska and Wyoming were in the developmental stage of MCSAP. The increase in state involvement under MCSAP has tremendously increased the numbers of inspections;
most are now conducted using a wide variety of state structures and personnel. As shown in table 1.1, the number of reported nationwide commercial vehicle inspections has increased from about 39,000 in 1981, when only federal personnel did them, to about 1.3 million done by state personnel under MCSAP in 1989. It should be noted that these figures do not include some state inspections not funded by MCSAP and not centrally reported. The largest example of this was California, which funded about 400,000 inspections in 1989—only 32,000 were funded by MCSAP and are included in table 1.1 totals. The inspections listed include bus and hazardous materials inspections, but these inspections are a relatively small percentage of overall figures.

### Table 1.1: Number of Reported Federal and State Roadside Vehicle Inspections (1981-89)

<table>
<thead>
<tr>
<th>Federal fiscal year</th>
<th>Federal inspections</th>
<th>MCSAP state inspections</th>
<th>Total reported inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>38,847</td>
<td>*</td>
<td>38,847</td>
</tr>
<tr>
<td>1982</td>
<td>33,174</td>
<td>*</td>
<td>33,174</td>
</tr>
<tr>
<td>1983</td>
<td>24,721</td>
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<td>24,721</td>
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<tr>
<td>1984</td>
<td>18,966</td>
<td>159,294</td>
<td>178,260</td>
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<td>1985</td>
<td>16,046</td>
<td>374,885</td>
<td>390,931</td>
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<tr>
<td>1986</td>
<td>10,027</td>
<td>559,300</td>
<td>569,327</td>
</tr>
<tr>
<td>1987</td>
<td>910</td>
<td>1,003,794</td>
<td>1,004,704</td>
</tr>
<tr>
<td>1988</td>
<td>238</td>
<td>1,254,385</td>
<td>1,254,623</td>
</tr>
<tr>
<td>1989</td>
<td>2,357</td>
<td>1,301,068</td>
<td>1,303,425</td>
</tr>
<tr>
<td>Total</td>
<td>145,286</td>
<td>4,652,726</td>
<td>4,798,012</td>
</tr>
</tbody>
</table>

### Roadside Inspection Process

In conducting roadside inspections, state personnel look for both mechanical defects and driver deficiencies. Trucks can be selected at random, but are often selected because of observed or suspected violations. All violations are noted on the inspection form which must be signed by the driver. If violations are deemed to be serious, the truck or driver can be placed out of service and cannot legally continue the trip until violations are properly corrected (figs. 1.1, 1.2, 1.3, and 1.4 depict typical inspection activity).
Vehicle out-of-service violations are mechanical or loading conditions that are determined to be so imminently hazardous as to likely cause an accident or breakdown or contribute to loss of control of the vehicle. The most common mechanical defects that place vehicles out of service include defective brakes, tires, and lighting. Decals that list defects are placed on out-of-service vehicles in a prominent location (see fig. 1.4) and cannot be removed until listed repairs are accomplished.

Driver out-of-service orders note conditions that would render the vehicle operator unqualified to drive. Common driver out-of-service violations include driving too many hours, failing to maintain a proper record of hours driven, or failing to have a proper medical certificate. Several of the more common out-of-service violations for drivers require that they do not drive again for 8 hours. Less serious violations may also be found that do not prohibit continued operation but that require correction before the vehicle and driver are dispatched again.

If mechanical defects are serious enough to place the truck out of service, it usually cannot be moved until these defects are corrected. This means it either has to be fixed at the inspection site by the driver or a mobile repair unit, or be towed to a repair facility. A small portion of the vehicle out-of-service defects are also designated as “restricted service,” which means officers may allow continued operation to a repair facility within 25 miles. Restricted service is used only if the officer judges it to be less hazardous to the public to move the vehicle than to require it to remain at the inspection site.

If no out-of-service violations are found, most states place a Commercial Vehicle Safety Alliance (CVSA) decal on the vehicle that tells other inspectors that the truck was without critical defects at the time of inspection. The decal is good for 3 months and helps inspectors to concentrate their efforts on trucks that have not been recently inspected.

Table 1.2 compares the total number of inspections conducted with the related out-of-service rates for vehicles and drivers since MCSAP began in 1984. Despite the large increase in inspection numbers, the out-of-service rates have remained fairly constant throughout the 6 years.

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1CVSA is an association of state and provincial officials responsible for the administration and enforcement of motor carrier safety laws in the United States and Canada, working together with the federal government and industry to improve commercial vehicle safety. Currently 48 states and the 12 Canadian provinces and territories have joined CVSA.
Table 1.2: MCSAP Inspection and Out-Of-Service Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Total inspections</th>
<th>Out-of-service rates (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Vehicle</td>
</tr>
<tr>
<td>1984</td>
<td>159,294</td>
<td>49,604 (31)</td>
</tr>
<tr>
<td>1985</td>
<td>374,885</td>
<td>107,583 (29)</td>
</tr>
<tr>
<td>1986</td>
<td>559,300</td>
<td>218,144 (39)</td>
</tr>
<tr>
<td>1987</td>
<td>1,003,794</td>
<td>370,088 (37)</td>
</tr>
<tr>
<td>1988</td>
<td>1,264,386</td>
<td>470,836 (38)</td>
</tr>
<tr>
<td>1989</td>
<td>1,301,868</td>
<td>473,919 (36)</td>
</tr>
</tbody>
</table>

State Programs Under MCSAP Differ

The dramatic increase in inspections has occurred utilizing state inspection programs that vary greatly in structure, locations, methods, types and numbers of inspections done, program maturity levels, and other activities undertaken. For example, states participating in MCSAP may use many different organizations within the state. One may use state police to conduct inspections, another may train public service commission personnel or a special motor vehicle enforcement group to do this, while another may use personnel from several agencies for various MCSAP duties.

State locations and methods for inspections also vary. Some states do most inspections at facilities that remain open 24 hours per day. These are often permanent scale facilities (also used to weigh trucks), but they are not staffed with inspectors around the clock. Others states may also use mobile units called "highway rovers" to patrol and inspect trucks along the roadside or at facilities that operate a limited number of hours per day. The inspections themselves may range from a complete inspection (level I) to less comprehensive inspections that check only readily observable items (level II), only drivers (level III), or only special items (level IV).

These differences, along with the maturity of the inspection program and the state's commitment to it, can affect the number of inspections done and other activities undertaken by the states. In general, states with mature programs tend to have had truck inspection programs before they joined MCSAP, while MCSAP has been the total truck inspection effort for other states. Other activities conducted by the more mature programs may involve safety reviews that assign carriers a rating that indicate the carriers' safety of operation. States may also conduct more in-depth carrier audits that can result in enforcement actions, or they can use procedures such as reinspection, verification, and carrier certification to encourage compliance with out-of-service orders.
Other MCSAP Activities

While MCSAP's initial focus was to increase the number of roadside inspections, FHWA currently encourages states to do safety reviews and other carrier reviews at the carrier terminals as a part of the program. Before this, safety reviews were done primarily by personnel from FHWA's Office of Motor Carrier Safety, Field Operations, Federal Programs Division. Approximately 30 states have joined federal efforts to perform these reviews, which do not focus on vehicle inspection, but assign fitness ratings based on motor carrier safety data, studies, and reports. These reviews provide FHWA information about carrier operations and are viewed as a mechanism to educate carrier management about safety regulations. If carriers are found to have unsatisfactory or conditional ratings, they are scheduled for more detailed reviews that may result in enforcement action against them.

As a part of MCSAP, FHWA also developed an automated management information system called Safetynet to provide nationwide inspection and accident data. FHWA combines this with other carrier information from FHWA's central computer to produce "carrier profiles." Federal and state personnel can access the information contained on these profiles to identify and track the performance of problem carriers. Based on such information, they can initiate follow-up actions against these carriers. Although FHWA began developing Safetynet in 1984 and state implementation of the system began in 1986, many states are still in varying stages of incorporating it into their inspection programs and are not providing inspection data to the nationwide system.

Internal Controls to Ensure Violation Correction

To help ensure that programs are effective, internal control systems and procedures are used to provide reasonable assurance that management objectives will be accomplished. States have used three primary internal control procedures to determine if inspections are actually keeping potentially dangerous trucks and drivers off of the nation's highways until violations are properly corrected. The first is reinspection immediately after repairs or corrections are made to see if out-of-service violations were properly corrected. The second procedure is similar, except that this verification of correction is done at a later time, usually at the motor carrier's terminal. In the third procedure, carrier officials certify that corrections are properly made by signing and returning the inspection form to the inspecting state. FHWA regulations require that carriers return the forms and that states monitor their return. The first two controls, reinspection and verification, were developed and used by a few of the states on a limited basis; the last, carrier certification, is required of all states by FHWA on all inspections that cite violations.
Chapter 1
Introduction

Pending Legislation

In August 1989 the Senate passed S.819 to strengthen enforcement of motor carrier safety laws and to address several other issues. Section 7 of this act requires the Secretary of Transportation to ensure the proper and timely correction of commercial motor vehicle violations noted during MCSAP inspections. These rules are to, among other things, initiate a nationwide system for random reinspection of vehicles to ensure proper and timely correction of safety violations noted during inspections. Also, the act requires the Secretary to establish a program of accountability for correcting all safety violations. This act has been referred to the House Committees on Energy and Commerce and Public Works and Transportation, but no action has been taken to date.

Objectives, Scope, and Methodology

The Chairmen and Ranking Minority Members of the House Committee on Public Works and Transportation and its Subcommittee on Surface Transportation asked us to review the feasibility of establishing a process to provide greater assurance that drivers comply with the results of roadside inspections. This process would determine whether serious violations found during inspections are being corrected before the trip is continued. This report analyzes

- the effectiveness of FHWA and state efforts to determine the extent that out-of-service trucks and drivers may be returning to the road without making required corrections,
- FHWA and state actions taken to ensure that serious violations are properly corrected, and
- other actions that can be taken.

To address our objectives, we developed a questionnaire to determine what states know about the extent of noncompliance, what they are doing to ensure compliance with out-of-service orders, and the obstacles they face. We pretested the questionnaire with 9 states before distributing it to all 50 states and the District of Columbia. Forty-seven states had conducted MCSAP inspections between October 1987 and December 1989 when state MCSAP coordinators completed and returned the questionnaire (the District of Columbia, South Dakota, and Texas were not in MCSAP, while Alaska is still developing its program). We subsequently telephoned state MCSAP coordinators to discuss their questionnaire responses and to obtain additional information when needed.

2A few states such as Florida, Wyoming, and Vermont provided information for only part of the period. Florida was in the program in 1988 but not in 1989; Wyoming and Vermont did not begin doing MCSAP inspections until 1989.
In addition, we obtained and analyzed available information from five studies funded by FHWA to determine the extent of noncompliance. We interviewed FHWA officials at the agency’s headquarters in Washington, D.C., to discuss these studies and other pertinent information. We also attended several CVSA conferences to obtain additional information on noncompliance from the state, federal, and industry officials attending these meetings.

Using information provided by FHWA and CVSA, we also selected four states—Kentucky, Oregon, Connecticut, and California—for more detailed audit work. Our work in these states included interviewing officials, reviewing pertinent documentation, and observing state procedures. Although these states are not statistically representative of all states, we believe they illustrate basic MCSAP experiences and concerns facing all states. These four states represent both large and small inspection programs and those that do and do not emphasize compliance activities.

We conducted our review between June 1989 and February 1990 in accordance with generally accepted government auditing standards. We did not comprehensively review FHWA’s system of internal controls for MCSAP. However, we did examine those controls FHWA or the states have found useful to ensure compliance with out-of-service orders and the states’ use of these controls. We also did not verify Safetynet inspection data provided by FHWA or other information provided by the states. Summary inspection figures presented in this report include bus or hazardous materials inspections, but we did not isolate these for review because of their relatively small numbers. We discussed the report’s contents and recommendations with FHWA officials, who generally agreed with them, and incorporated their clarifying comments as appropriate. Summaries of their comments also appear at the end of chapters 2 and 3. However, in accordance with the requesters’ wishes, we did not obtain official agency comments on a draft of this report.
State personnel conducted 1.3 million roadside inspections in 1989 and placed 474,000 commercial vehicles and 92,000 drivers out of service because of serious violations. We found that neither FHWA nor the states know how many of these violations were properly corrected. To comply with out-of-service orders, corrections of violations, required by federal and state regulations, must be made before the drivers and trucks can legally continue the trip.

FHWA funded small studies in five states to help determine the extent of noncompliance with out-of-service orders. Preliminary study results on 940 vehicles as of February 1990 disclosed an overall noncompliance rate of 12 percent and individual state rates that ranged from 9 to 53 percent. The studies found the highest noncompliance rates when drivers were left unattended at closed facilities or along the roadside. In many of these cases, drivers continued their trips without correcting out-of-service violations. Furthermore, our questionnaire results showed that up to 74 percent of the 1.3 million 1989 inspections were conducted at facilities that are not staffed around the clock. Closed facilities mean that drivers are left unattended, which causes an increased potential for noncompliance. We believe this population of trucks and drivers should be emphasized in state compliance efforts.

We also found relatively little state activity to prevent noncompliance, even though MCSAP objectives clearly include correcting violations, not just detecting them. Because of the limited use of the three basic control procedures, total noncompliance numbers are unknown, but FHWA-funded studies in five states show that trucks and drivers with serious violations return to the nation’s highways before these violations are properly corrected.

Primarily through using funding incentives and obtaining voluntary state cooperation, FHWA has encouraged the states to increase the number of roadside inspections and to begin doing carrier safety reviews. But FHWA has done little to ensure that states follow up to determine whether out-of-service violations discovered during inspections were actually corrected. Reinspection and verification, two primary controls developed by states and used by some of them on a limited basis, are not required by FHWA. While FHWA regulations require that carriers certify that corrections have been made and that states monitor this process, FHWA has limited ability to enforce this requirement for states voluntarily participating in MCSAP. Given the lack of emphasis on compliance, it is not surprising that only 5 of the 47 states had used all three control procedures.
Although 36 of the 47 states visit carriers to perform safety reviews and to conduct audits and other enforcement activities, few states utilize these visits to ensure compliance with previously issued out-of-service orders. We believe that such visits provide an excellent opportunity to ensure that out-of-service orders are followed—at little additional cost to MCSAP.

Although the 1.3 million MCSAP inspections placed 474,000 commercial vehicles (36 percent) and 92,000 drivers (7 percent) out of service in 1989, neither FHWA nor the states know the rate of compliance with these out-of-service orders. This information is needed so that FHWA and the states can better determine what control or combination of controls would provide reasonable assurance that out-of-service violations are properly corrected. Unfortunately, little is known about the rate of non-compliance at the individual state or the federal level. The use of the controls discussed below, however, could help to determine the extent of noncompliance, identify when and where it most often occurs, and discourage it.

Some states have used the following three internal control procedures to ensure compliance with out-of-service orders:

- **Reinspection.** State personnel reinspect vehicles and drivers to determine if out-of-service violations noted during inspections were properly corrected. Immediate reinspections usually take place before the vehicle and driver leave the inspection site. Drivers may or may not be told to expect these reinspections. In some cases, reinspection may take place a short distance from the inspection site, to determine if drivers continued their trip before correcting out-of-service violations. This is usually a covert operation, in which the drivers are not aware of the pending reinspection.

- **Verification.** This method is quite similar to reinspection, but it is done later, usually at the carrier terminals. By checking company maintenance records, driver information, and other safety records, or sometimes the actual vehicle, inspectors verify whether out-of-service violations noted on inspections were properly corrected before the trip was continued.

- **Carrier Certification.** Historically, matching signed inspection forms returned from the carriers with original inspections has been the method FHWA and the states have relied upon to provide assurance that
all violations cited on inspection reports were corrected. This control requires that drivers deliver copies of the inspection reports to appropriate carrier officials. The carrier officials must sign the bottom of the inspection forms containing violations to certify that corrections were made and send them back to the inspecting state within 15 days. State personnel then match certified copies with the originals and are required to send tracer copies (extra copies) of the inspection forms to the carriers that fail to certify within the time period allowed. Although this control is required by FHWA regulations, it has not been enforced.

Although reinspection and verification are not FHWA requirements, both methods were used to determine the extent of noncompliance with out-of-service orders in four of the five studies funded by FHWA. Maine used only reinspection.

FHWA Funds Initial Effort to Determine Extent of Noncompliance

A 1988 Congressional Research Service report concluded that MCSAP's inspection follow-up was subject to serious question and presented a series of options that addressed this and other MCSAP concerns. Subsequently, in response to that report and to S. 819, FHWA funded five small studies to determine the extent of noncompliance with out-of-service orders. Originally, 7 states were chosen to conduct the studies from among 14 states responding to an FHWA letter asking for volunteers. However, two of the states initially selected eventually decided not to participate in the studies. The remaining five states—Idaho, Maine, Michigan, Oklahoma, and Wisconsin—were selected on the basis of the states' proposed approaches to the study, geographical diversity, and characteristics of the motor carrier population. Michigan developed study procedures and completed its study before the other four states began their efforts.

Four of the five studies were completed by February 1990, but the Maine study had completed study results for only a small number of vehicles and will continue until October 1990. FHWA officials plan to issue a report on the studies when they are all completed. FHWA will decide at that time what action, if any, states should take to ensure compliance.

\[1\] Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve a Generally Successful and Cooperative Federal/State Partnership Promoting Truck and Bus Safety (June 1988).
Although methodologies for the studies displayed some differences, inspectors followed the same general guidance. In order to determine noncompliance rates, inspectors reinspected the out-of-service items from the original inspection to determine if they had been properly corrected. Reinspection was generally done as the driver was preparing to leave the inspection site. Four of the states randomly chose out-of-service vehicles and drivers for their study. Those vehicles and drivers that were not reinspected before the site closed were observed for a 2-hour period and were reinspected whenever they left within the 2-hour period. For those study vehicles that did not leave within the 2-hour period, four states planned to verify that corrections were made at a later date at the carrier terminals. Michigan planned to verify these corrections for vehicles based both in Michigan and other states, while the other three states' verification efforts were limited to vehicles based in their own state. However, all of these verification attempts were only partially successful.

As of February 1990 the five studies had selected a total of 940 study vehicles to determine if drivers had complied with out-of-service orders or continued their trips before correcting violations. Our analysis of FHWA studies revealed an overall rate of noncompliance with out-of-service orders of 12 percent; the individual state rates ranged from 9 to 53 percent (see table 2.1).

Studies Demonstrate Noncompliance Problems

Although these five studies were fairly limited in number of reinspections and verifications, we believe that they provide valuable insight into the noncompliance problem and point to the need for action. Table 2.1 provides an overview of the five studies with information on the study vehicles identified, those not followed up, and the resulting noncompliance rates. The different noncompliance rates shown in the last three columns vary, according to the assumptions made about the study vehicles not checked.
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FHWA and the States Need to Ensure That Serious Violations Are Properly Corrected

Table 2.1: Overview of Study Results

<table>
<thead>
<tr>
<th>State</th>
<th>Number of study vehicles</th>
<th>Number (and percentage) of vehicles in noncompliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Not checked</td>
</tr>
<tr>
<td>Idaho</td>
<td>110</td>
<td>40</td>
</tr>
<tr>
<td>Maine*</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>Michigan</td>
<td>234</td>
<td>15</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>443</td>
<td>90</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>123</td>
<td>51</td>
</tr>
<tr>
<td>Totals</td>
<td>940</td>
<td>213</td>
</tr>
</tbody>
</table>

*This study is still on-going and is not expected to be completed until October 1990. We used preliminary results provided by Maine personnel as of February 1990.

The difference in study results reported to FHWA and those we found stems from the treatment of the 213 study vehicles on which the states were not able to perform verifications at carrier terminals. These were generally out-of-state vehicles that did not leave the site within the 2-hour observance period. The assumption made for the results reported to FHWA was that the 213 vehicles not checked complied with out-of-service orders as required, which resulted in an overall 8 percent noncompliance rate. If the 213 not checked are completely eliminated, the overall rate changes to 10 percent. In the Michigan study, however, when officials verified compliance at carrier terminals located both in Michigan and other states, inspectors found that 20 percent (8 of 40) had not properly corrected violations. Michigan was the only state that did verification at the out-of-state carriers' terminals.

When we applied this 20 percent noncompliance rate to those not checked at carrier terminals by the other states and added these to the study vehicles reported not to have complied, we found a 12 percent overall noncompliance rate. We believe the latter method provides the most reliable results, given the more comprehensive nature of the Michigan study methodology.

As shown in table 2.1, Maine's study (as adjusted) resulted in the highest rate of noncompliance (53 percent). They dealt with smaller numbers of vehicles and selected them from only those vehicles and drivers that remained out of service after the inspection facility had closed, leaving drivers unattended. They then reinspected the vehicles and drivers that left within the 2-hour surveillance period. Similarly, the
Michigan study noted that slightly under one-half of the study vehicles were reinspected after they were left unattended at closed facilities or along the roadside during the 2-hour period. The Michigan study's resulting noncompliance rate for these vehicles was 16 percent—compared to 2 percent for those vehicles reinspected as they left Michigan's open facilities. In addition, Michigan also escorted some of the vehicles and drivers that would have been left unattended to parking or repair facilities. According to the study, this practice cut the noncompliance rate from 21 percent to 7 percent for the escorted vehicles. Had they not followed this procedure, it is likely that the 16 percent rate would have been higher.

In contrast, the Idaho study (as adjusted) resulted in a 9 percent noncompliance rate. Officials chose as a study vehicle every third vehicle placed out of service during the shift, resulting in many of the reinspections occurring while the inspection sites remained open. In addition, 61 percent of Idaho's reinspections were at sites staffed 24 hours a day, placing drivers under some scrutiny. The Oklahoma study also resulted in an adjusted 9 percent noncompliance rate, but the state conducted all inspections at fixed facilities and during daylight hours because of the lack of lighting and other safety considerations.

Common Factors Cited in Noncompliance

Both the Maine and Michigan study results indicate that drivers left unattended are more likely not to honor out of service orders. Furthermore, our questionnaire results indicate that up to 74 percent of the 1989 inspections conducted by MCSAP were done at locations not staffed around the clock and therefore the drivers were not under any observation by state personnel. Of the 47 states answering our questionnaire, 21 had no facilities staffed around the clock, 12 estimated that only a portion of their inspections were done at 24-hour facilities, and the remaining 14 states could not provide estimates of inspections at 24-hour facilities. The 33 states that could provide information reported that about 74 percent of their inspections were conducted at facilities not always open. We believe that the number of drivers left unattended at closed facilities represents a disproportionately large potential for noncompliance with out-of-service orders and that this population of trucks and drivers should be emphasized in state compliance activities.

The Michigan study also noted other factors associated with violations of out-of-service orders. The additional factors mentioned were inspections that resulted in multiple out-of-service violations and in driver violations. While three of the other studies did not pinpoint multiple
Questionnaires Indicate Sporadic Use of Controls

We found that only 5 states of the 47 that completed our questionnaire had used all three control procedures to determine if out-of-service violations were properly corrected. Most states used at least one control, and 12 used a combination of two controls. Table 2.2 summarizes the states' responses, and appendix I shows the controls used by individual states.

Most States Do Not Use Controls to Reasonably Ensure Compliance

On the basis of our questionnaires and state visits, we found that most states did not use adequate control procedures to ensure that out-of-service violations cited are properly corrected. Most states spend the majority of their MCSAP resources conducting initial roadside inspections to detect violations, some also devote resources to conducting safety reviews at carrier terminals. Relatively few resources have been spent ensuring compliance with the results of initial inspections. As a result, neither the states nor the carriers know if the out-of-service violations found during these inspections are actually corrected before the vehicle and driver return to the nation's highways.

If the results concerning drivers' out-of-service violations hold true on a nationwide basis, this may also be a fruitful area for initial compliance efforts. Studies of truck accidents increasingly point to driver error. Drivers who have driven too many hours did not comply.

If the results concerning drivers' out-of-service violations hold true on state visits, we found that most states did not use adequate control procedures to ensure that out-of-service violations cited are properly corrected. Most states spend the majority of their MCSAP resources conducting initial roadside inspections to detect violations, some also devote resources to conducting safety reviews at carrier terminals. Relatively few resources have been spent ensuring compliance with the results of initial inspections. As a result, neither the states nor the carriers know if the out-of-service violations found during these inspections are actually corrected before the vehicle and driver return to the nation's highways.

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If the results concerning drivers' out-of-service violations hold true on a nationwide basis, this may also be a fruitful area for initial compliance efforts. Studies of truck accidents increasingly point to driver error. Drivers who have driven or have been on duty too many hours did not comply.
As shown in Table 2.2, a total of 27 states had attempted to use reinspection to help ensure compliance. Many of these efforts were limited and few were well documented, however. For example, only 9 states classified their reinspection program as continuous, 13 as occasional, 4 as special programs, and 1 as rare. Of the 27, 19 provided us with counts of reinspections, although many of these were estimates. Two states, Michigan and Idaho, reported having done reinspections only during their FHWA-funded studies, and three states, Alabama, Missouri, and Oklahoma, had just begun reinspection efforts in fiscal year 1990.

Only 15 states noted that they had attempted to use the second control—verification at carrier terminals—to ensure that carriers were properly correcting violations. Of these 15, 3 states had done 10 or fewer verifications during 1989 and 3 others could not provide any estimate of how many they had done. The remaining nine states did from 61 to 1,386 verifications; the average was 344 during 1989. For the 12 states that could provide estimates on the number of verifications they had conducted, the overall verification rate was about 1 percent of their total inspections.

Only 21 states used the FHWA-required carrier certification control and 17 of these noted that they did so consistently. Of these 17, 12 states consistently sent tracer copies (extra copies) of the inspection form to the carriers, as required by FHWA. In addition, only 12 of the 17 consistently following up on inspections could provide figures as to how often carriers were signing and returning the forms as required. Four states could provide actual numbers of returns and the other eight could provide only estimates. The lack of information on their own efforts to
track carrier certification added to the states' overall lack of knowledge
about how often carriers are certifying that violations were corrected.

Although use of the three controls has been rather limited on a nation-
wide basis, some states have demonstrated that they can be used to help
ensure compliance. Each control method has its advantages and disad-
vantages, and its degree of use often depends on a number of individual
state factors.

**Reinspections Can Be an Efficient Means of Ensuring Compliance**

Immediate reinspections may often be possible, if inspection facilities
are open and personnel are available when the driver is ready to leave.
Several states check some of the trucks before they leave the immediate
site, allowing large numbers of reinspections to be done fairly economi-
cally. For example, in a one-day sample we examined in Oregon, 12 of 55
inspections had handwritten notes indicating reinspections by state per-
sonnel; most of these involved brake adjustments, a very common and
quickly remedied out-of-service defect that allows for rapid reinspec-
tion. Tennessee began doing immediate reinspections in 1989, not only to
ensure that violations were being corrected, but also as an in-house
quality-control measure. Under this program, supervisors had checked a
sample of nearly 7,000 inspections to also determine the quality of
inspectors' work and the quality of maintenance provided by commer-
cial mobile repair units. However, Tennessee did not have summary data
available showing the results of these efforts.

According to California officials, state personnel reinspected nearly 100
percent of cited violations. Under the California system, citations are
issued and require proof of correction before they are cleared by the
court. This proof can also reduce or eliminate some penalty amounts.
California's reinspections were not immediate, however, and the state
did not have procedures in place to determine when corrections were
made. Because court dates were usually several weeks after the inspec-
tion and results were not reported to MCSAP officials, California had no
way to ensure that the violations were corrected before the trip was
continued—which is critical to keeping unsafe trucks and drivers off
the road. The state was considering instituting a new system to correct
this weakness. Maryland also requires that selected vehicles be rein-
spected, after which they must send proof of correction to the state
within 30 days.

Although immediate reinspection is the most certain way of ensuring
compliance, it is often not possible. Many inspection locations are open
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for only a limited number of hours, so that trucks and drivers placed out of service at these locations are left unattended. Even at locations operating 24 hours, inspectors are usually not on duty on a 24-hour basis. In addition, trucks with out-of-service violations can be towed to remote repair facilities, which also removes them from the inspectors' scrutiny. Furthermore, a small portion of out-of-service violations are classified as "restricted service," which allows the truck and driver to travel up to 25 miles to a repair facility. Restricted service is allowed by some states, however, and only at officers' discretion when they considered it more dangerous to leave the truck and driver at the original inspection site than to allow it to move. Covert surveillance and reinspection or later verification (as explained below) of a small sample of vehicles and drivers left unattended at closed facilities or allowed to proceed to a repair facility could also decrease noncompliance in what appears to be a high-risk population.

Verification Should Be a Standard Part of Carrier Visits

Although 15 states used the verification control at carrier terminals to some extent, many other states also visit carrier terminals to do safety reviews. These reviews educate carriers to safety requirements, obtain basic safety performance information, and result in the carriers being assigned a safety rating of satisfactory, conditional, or unsatisfactory. The two states we visited that did safety reviews indicated that FHWA discouraged them from combining safety reviews with verification because FHWA considers safety reviews to be primarily educational in nature, while verification efforts can result in enforcement actions against carriers. FHWA officials in Washington told us, however, that they did not discourage combining these activities.

Our questionnaire results disclosed that as of December 1989, 15 states had visited carrier terminals to conduct safety reviews. An additional 16 states do both safety reviews and other types of audits at carrier terminals. Five other states did not perform safety reviews but did perform other types of audits. The remaining 11 states responded that they did not visit carrier terminals to perform any type of audit or review activity. Thus, in 36 of 47 states, officials visit carrier terminals and have the opportunity to use the verification control as a part of these visits.

Connecticut has used verification the longest and has completed the largest number of verifications under its Inspection Repair Audit Program. Connecticut officials told us that the program was a logical outgrowth of MCSAP inspection efforts to ensure that in-state carriers were
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actually correcting violations as required. A state analysis of the program found a noncompliance rate on all violations (both out-of-service and less serious ones) of 26 percent for the 12 months ended May 1988. A random sample that we selected in November 1989, which covered the entire program (approximately 36 months), revealed a 7 percent rate. Until discouraged by PHWA, Connecticut combined verification with safety review visits. The lead inspector told us that a large amount of time is spent arranging for and traveling to safety reviews and verifications. Making these arrangements twice for the same carrier is not cost effective and limits the number of both safety reviews and verifications.

In states with severe weather, verification could be used to better utilize the inspectors' time when they are unable to work outside. For example, we noted that several northern states conduct fewer of the comprehensive level I roadside inspections during the winter months. In addition, PHWA has recently approved states using MCSAP funds to do roadside-type inspections on vehicles at carrier terminals. This may also lead to increased visits to carrier terminals in some states, providing further verification opportunities.

Verification is used by fewer states than the other two control procedures and may be a more time-consuming and expensive means of ensuring compliance. Also, a lack of documentation needed to determine whether or not violations were properly corrected was cited as one problem preventing effective verification. Chapter 3 discusses an inspection form change to help alleviate this problem. As noted by Connecticut personnel, resource use could be greatly reduced by combining verification with safety reviews and other visits to carriers. All carrier visits represent an excellent opportunity to increase verification on a sample of inspections and to maximize use of limited MCSAP resources. We do not believe that the educational nature of safety reviews would be diminished by verification of out-of-service orders; in fact, such action could provide an effective means of demonstrating to carriers the need to correct these violations in a timely manner.

Carrier Certification Should Be Checked More Consistently

Although PHWA requires carrier certification on all inspections with violations, it has not enforced the requirement. Only 17 states consistently used this control, and PHWA officials noted that the voluntary, cooperative nature of the MCSAP limits their enforcement abilities. In addition, PHWA officials said that it is difficult for the states to track carrier certification, because of the rapid increase in the number of inspections and a lack of clerical personnel in the states. Kentucky, for example, did not
follow up on carrier certifications because of the large number of inspections conducted (over 100,000 annually), combined with a lack of automated processing, personnel shortages, and data entry difficulties.

On the other hand, Oregon does approximately 17,000 inspections each year and has a complete follow-up system on all inspections that list violations. This state sends all carriers a first notice with an additional copy of the inspection and a second notice, if necessary, to carriers failing to return certifications. Oregon consistently receives a 95 percent return rate and files complaints against carriers (both in-state and out-of-state) not complying with this requirement. By contrast, Florida estimated only a 38 percent return rate on the 60,000 inspections it conducted in 1989. Florida officials noted that it would not be cost effective to enforce this requirement for carriers based in other states. The Massachusetts Registry of Motor Vehicles requires carriers to provide supporting documentation of the violation correction, in addition to the carrier official certification.

Although states have dramatically increased the number of inspections conducted over the past few years, we believe all states could at least follow up on carrier certifications for out-of-service violations. Reducing the follow-up requirement to only out-of-service violations would reduce the administrative burden on states while focusing efforts on the most serious violations. For example, in 1989 this would have resulted in states following up on less than one-half of the 1.3 million inspections. Once their systems are fully automated, states could resume tracking all inspections that have any violations, including the more minor violations cited.

Several options are open to FHWA to encourage other states to use the three controls to determine the extent of the problem, where it most often occurs, and the controls that most effectively discourage it. For example, FHWA guidelines ask that states conduct at least 25 percent of their inspections during off-peak hours. FHWA could use similar agreements to encourage state use of the appropriate controls. Another option would be to set aside a small portion of MCSAP funding for this purpose. If stronger measures are needed, FHWA could withhold funds from states that do not use the controls within a reasonable time frame.
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Federal and State Priority Is on Roadside Inspections

Early MCSAP emphasis was clearly on increasing the number of roadside inspections. This involved training over 4,000 state inspectors and has resulted in a 700 percent increase in the number of inspections conducted in the first 6 years of the program. More recently, however, FHWA has increased emphasis on states conducting safety reviews and other carrier reviews as a part of MCSAP.

One reason FHWA officials gave for not encouraging states to use the control procedures was that it would reduce inspector availability to do roadside inspections. We acknowledge that using the control procedures could result in a reduction in inspection numbers, but we believe it is necessary to ensure that these inspections are achieving their desired results—removing unsafe trucks and drivers from the highway until violations are properly corrected. In addition, FHWA's policy of encouraging states to conduct more safety reviews notes that these contacts with motor carriers provide a "more balanced approach." Use of the three controls would also serve to provide more frequent contact with the carriers, which FHWA also noted as an important factor.

FHWA officials also stated that not knowing the extent of the noncompliance was part of the reason they had not taken more action to ensure that violations were properly corrected. The officials noted that they had encouraged use of the controls at regional conferences and had funded Connecticut's verification efforts with MCSAP discretionary funds. However, until the five state studies are completed and analyzed, FHWA does not plan to make these activities an area of program emphasis.

The studies, which involved a limited number of study vehicles in five states, will not provide nationwide information on the extent of the problem. While we agree that the studies were a logical and helpful first step, use of the appropriate controls by all MCSAP states can provide further assurance that out-of-service violations noted during initial inspections are properly corrected on a nationwide basis. Our questionnaire results indicate that, at present, states have not consistently used the controls available to them.

The state responses to our questionnaire reflect the overall lack of emphasis on use of the three controls. According to the 19 states that did no reinspections, limited inspector availability and an emphasis on roadside inspections were the primary factors affecting their decision not to determine compliance with out-of-service orders. The primary reasons state officials gave us for not doing verification was that the
state had not enacted a program to do so and other priorities kept them from it. State officials we spoke with on our state visits and in discussing questionnaire responses noted the primary reason they did not track carrier certifications was lack of personnel, especially data entry operators.

Conclusions

FHWA and the states do not know the extent of noncompliance with out-of-service orders. These orders are issued only when the vehicle is determined to be imminently hazardous or the driver is determined to be unqualified to operate the vehicle. The noncompliance noted in the five FHWA-funded studies indicates that these orders are violated at varying rates under different conditions. It appears that violations are more likely when drivers are left at closed facilities or along the roadsides and that driver out-of-service orders may be more likely to be violated. Because of limited resources and operational constraints, states do not immediately reinspect to ensure that all out-of-service violations are properly corrected.

We found that most states do not consistently use the controls to determine the extent of noncompliance or use them only on a limited basis, and do not usually document the results of their efforts. We believe that the use of control procedures can help to ensure compliance with out-of-service orders. Carrier certification is currently required for all violations, but over 30 states do not consistently use this control because of resource limitations. Until more fully automated procedures are developed, enforcing this requirement for inspections containing out-of-service violations would reduce the required state workload, while focusing on the most serious violations and emphasizing to carriers the importance of this certification. This control, however, cannot be the sole assurance of compliance.

Use of the other two controls on a sample basis would provide a more active means of determining compliance. Immediate reinspection and covert activities, similar to those used during the FHWA-funded studies, can further emphasize to both drivers and carriers the importance of proper and timely compliance with out-of-service orders. Later verification at the carriers, especially combined with other carrier visits to maximize resource use, could also help ensure compliance—as well as verifying the accuracy of carrier certifications.

Use of the controls can provide better information for FHWA and the states to determine (1) the extent of noncompliance, (2) when and where
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it most often occurs, and (3) the control(s) needed to most effectively
discourage it. We recognize that use of the controls will have to be fairly
flexible because of the differences in state structures and procedures.
When implementing verification and reinspection efforts, however, care
should be taken to direct these efforts to those trucks and drivers found
by states to be most likely to violate out-of-service orders—not just
those that can be checked easily and quickly. Chapter 3 also discusses
the use of Safetynet inspection information to help pinpoint candidates
for reinspection and verification.

Since MCSAP is a voluntary program, one mechanism to encourage states
to use these controls is to set aside program funds specifically for this
purpose. A more stringent measure would be to withhold MCSAP funds
from states that, within a reasonable time, fail to use the controls to
ensure compliance. We recognize that states will have to either provide
more resources or divert them from roadside inspection or safety review
programs to increase their efforts to follow up on these serious viola-
tions. MCSAP has resulted in a tremendous increase in the number of viola-
tions detected, but we believe that using the controls will provide
FHWA, the states, and the motoring public with better assurance that
trucks and drivers are properly correcting violations before returning to
the highways.

Recommendations to
the Secretary of
Transportation

We recommend that the Secretary of Transportation direct the Adminis-
trator, FHWA, to take the following actions:

- Enforce program requirements that carriers certify violation correction
  and that states monitor carrier certifications, at least for all out-of-ser-
  vice violations.
- Encourage states to reinspect a sample of out-of-service orders, empha-
sizing those found by the state to be most likely to violate these orders.
- Require FHWA inspectors and encourage state inspectors to verify a
  sample of out-of-service orders as a standard part of all carrier terminal
  visits to maximize MCSAP resources.
- Encourage greater state use of the controls found to be effective by set-
ting aside MCSAP funds for this purpose or by withholding MCSAP funding
  for states failing to do so in a reasonable time frame.
Agency Views

We discussed this chapter's contents with FHWA officials responsible for the MCSAP, and they provided comments on our findings and recommendations. On the basis of their comments we added additional information on FHWA activities and made other changes as appropriate.

FHWA officials generally agreed with the above recommendations, noting the need for flexibility in control use because of the differences in the states. They agreed with the approach that utilized the controls to determine when and where noncompliance most often occurs, and to use the controls that most effectively discourage it.

FHWA officials said that they do not discourage states from combining verification with safety reviews. They noted that safety reviews include checks of inspection, repair, and maintenance files by selecting a sample of vehicles and drivers from those listed by the carrier as having been involved in an accident. If safety officials do not find any that have been in accidents, they select a vehicle that has been inspected, if possible. They do not at present determine whether cited violations were properly corrected before the vehicle was moved. These officials said that they do not initiate enforcement action as the result of safety reviews, but that carriers receiving conditional or unsatisfactory ratings are scheduled for more in-depth reviews that can result in enforcement. They agreed that resources could be saved by combining verification with carrier visits, however.
FHWA and the states can take several other actions, in addition to increased use of the control procedures discussed in chapter 2, to improve MCSAP compliance efforts. FHWA should place additional emphasis on the full implementation of Safetynet, its management information system. Although FHWA began developing this system in 1984, it has still not accomplished its initial purpose of providing nationwide inspection data to state and federal officials in order to help prioritize safety review activity and to focus enforcement efforts. For example, as of February 1990, only about 40 percent of the 1988 and 1989 interstate inspection data was available from the system. Many states are experiencing delays in entering and transmitting the data to FHWA, and once transmitted the data are not always included in the individual carrier profiles available from FHWA. As a result, comprehensive and timely inspection information needed by state and federal officials is not now available. Furthermore, supplemental manual efforts to provide these data are not consistently followed.

FHWA and the states could also impose and use more stringent penalties against carriers and drivers that do not properly correct out-of-service violations. Some states do not have adequate penalties to deter noncompliance, and the states have very limited information on penalty use. FHWA has proposed additional monetary penalties for several areas of noncompliance and we agree these penalties are needed. However, although the proposed penalty structure to be used by federal officers conducting carrier reviews may help deter noncompliance, states are not required to adopt these penalties for their carrier review penalties.

FHWA officials told us that they are strongly encouraging states to use a penalty structure compatible to the federal one for violations found during carrier reviews. Adding violation of out-of-service orders to the offenses listed under the Commercial Driver's License (CDL) federal regulations for disqualifying an operator's license could provide a more uniform penalty for this offense and further encourage compliance, because states must adopt these CDL provisions. However, unless the states use the three controls previously discussed to identify and prosecute violators, no penalties will be effective.

FHWA and the states could also emphasize compliance activities and improve related monitoring of these activities by revising the inspection forms. Currently, none of the forms used by the states have preprinted spaces for reinspection entries. Adding to the form a place to put standard information on when and how corrections of out-of-service violations were made would be a simple, convenient means of improving
compliance. This information, completed by the official doing the rein-
spection, would emphasize both the importance of compliance and the
possibility that official follow-up will occur, at least on a sample of
inspections. It would also allow states to focus later enforcement efforts
on trucks and drivers not previously checked or on those carriers whose
inspection forms indicate failure to correct or untimely corrections of
out-of-service violations.

Nationwide Safetynet
Inspection Information
Is Not Yet Available

FHWA started developing Safetynet, MCSAP's management information
system, in 1984 to provide state and federal officials access to nation-
wide inspection and accident information. The inspection module of
Safetynet was the first to be developed, with software and associated
documentation distributed to the states in the fall of 1986. According to
FHWA, many states had difficulty setting up hardware configurations,
while others could not readily use the software, thereby preventing
timely transmission of information to FHWA. By the summer of 1988,
FHWA planned to combine these inspection data with other carrier infor-
mation that FHWA collects as a part of individual carrier profiles avail-
able to state and federal inspectors. Profiles containing inspection
information were not available until a year later, and as of January
1990 this information still was not complete because of numerous
difficulties.

As of February 1990, 11 states had not transmitted any 1988 or 1989
Safetynet inspection information to FHWA. Several other states are
experiencing substantial entry and transmission delays. Both factors
result in incomplete inspection information on carrier profiles. Complete
carrier profiles are important because information they provide to state
and federal officials allow them to more accurately identify and deal
with, on a priority basis, carriers with poor safety records. While states
enter both interstate and intrastate inspections on Safetynet, only inter-
state inspections (estimated by FHWA to be at least 60 percent of total
inspections) are transmitted to FHWA to become part of the carrier
profiles. Individual states should be able to query their local Safetynet
systems for inspections that they have conducted on intrastate carriers.

Safetynet Is Missing 60
Percent of 1988 and 1989
Inspection Data

Overall, only about 40 percent of the 1988 and 1989 interstate inspec-
tions that should be included in carrier profiles is available. While some
states have not begun transmitting Safetynet data to FHWA, others are
experiencing long delays in doing so. As of February 1990, 11 states had
not transmitted any 1988 or 1989 inspection data to FHWA. These states
Chapter 3
Other Actions to Increase Compliance

did nearly 500,000 interstate inspections during these 2 years. FHWA officials noted that because these states are having an assortment of problems, they will probably not transmit past inspections. Thus, most of this information will be lost to the carrier profiles.

In addition, many states that have begun transmitting inspections to FHWA have done so for less than one-third of their interstate inspections. This includes seven states that had transmitted a total of 12 percent of the 1988 inspections and nine states that had transmitted a total of 21 percent of the 1989 interstate inspections. As a result, during these 2 years only about 44,000 of an estimated 253,500 interstate inspections were transmitted to FHWA by these states.

Because our review did not specifically address Safetynet problems, we did not ascertain whether these difficulties were primarily at the federal or the state level. In the course of our work, however, we noted problems at both levels. FHWA officials told us that some Safetynet delays occurred because 16 states were using obsolete software to transmit their inspections. Six of these states and five other states were using mainframe computers rather than personal computers, which caused additional problems because the software was originally designed for use with personal computers. As a result, at least 21 states could generally not utilize the Safetynet Census System, a software program that would allow them to check for proper census numbers on the automated Census System. Instead, for states using either obsolete software or mainframe systems, FHWA must edit the inspections for proper census numbers before these inspections are included in carrier profiles. FHWA officials told us that these edit checks add about 2 months to the processing time. They also noted that over 100,000 inspections transmitted to them could not be matched with a carrier census number and therefore will not be available on carrier profiles.

States also experienced various data entry problems. For example, Kentucky completed over 246,000 MCSAP inspections in 1988 and 1989, but over 100,000 of these were never entered on Safetynet due to data entry problems. Connecticut was "losing" inspection data that it had already entered into Safetynet, but the state had not determined if the loss resulted from problems with its system's software or hardware. As a result, the state had just completed entering September 1989 data in early December. Although FHWA promotes timely entry and transmission

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1Safetynet requires assignment of a unique census number for every commercial carrier and this number must be entered for each inspection so that it can be attributed to the proper carrier.
of data from inspections forms and provides technical assistance from its headquarters staff to help states with problems they encounter, delays are still prevalent.

Although FHWA has made some Safetynet progress and is in the process of taking other actions to help complete the system, additional effort is needed—particularly for those states that are not transmitting inspections to FHWA consistently and in a timely manner. Complete inspection information would allow both federal and state personnel to prioritize their efforts using carrier profiles and to direct safety reviews and enforcement activities at carriers with poor safety records.

As noted in the agency comments at the end of this chapter, FHWA is in the process of taking several positive steps to strongly encourage those states not transmitting inspection data to it to do so. Among these steps is a possible loss of MCSAP funding and additional required reporting to FHWA headquarters of necessary tasks, required resources, and schedules for completion. Although the potential loss of funding appears to apply whenever states do not routinely transmit data, the other actions called for, such as preparing plans to complete Safetynet inspection data, apply to only those states not transmitting data at all.

Timely State Entry of Inspection Data Is Needed

Unless the states enter inspections into Safetynet on a timely basis, the effectiveness of using the system for follow-up on carrier certification is greatly reduced. Carriers are required to return the forms to the inspecting state within 15 days. Because Connecticut personnel were behind in entering inspection data, they had discontinued efforts to send notices to carriers failing to certify. According to state officials it made no sense for them to send notices to the carriers months after the inspection requesting submission of forms that should have been returned within 15 days. The same would be true for any state with long delays in data entry, and several states experienced such delays. On the other hand, Oregon developed a prompt follow-up system utilizing the state’s own computer system.

Interim Manual Efforts May Increase Carrier Information

Before Safetynet, FHWA required federal officers in each state to manually forward all the state’s inspections done on out-of-state carriers to those carriers’ home states. Federal officers in those states would place inspections in the carrier file to provide information for use in carrier audits and other enforcement actions. State enforcement officials are permitted to use FHWA carrier files for enforcement purposes.
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In anticipation of Safetynet becoming fully operational and because of personnel shortages in the states, this inspection-forwarding procedure is not followed on a consistent, timely basis. Until states are transmitting all interstate inspection data promptly, we believe that, at a minimum, out-of-service inspections for these states should be forwarded in a timely manner by the federal officers to their counterparts in the carriers' home states. This information would supplement carrier profiles containing transmitted inspection information and would provide a more complete picture of carrier inspection information. In addition, these out-of-state inspections would be available to state and state-assigned federal officers to verify violation corrections from states other than their own.

Penalties Needed to Ensure Compliance

In March 1990 FHWA initiated a rulemaking process to consider adding penalties to promote improved compliance with out-of-service orders. These penalties, for use by federal officers conducting carrier reviews, would apply to both carriers and drivers who fail to comply with out-of-service orders. FHWA has strongly encouraged states to adopt compatible penalty schedules for penalties arising out of their own carrier reviews. Among the proposed penalties were (1) $500 for carriers failing to certify or falsely certifying that violations were corrected as required, (2) $1,000 for drivers or owner-operators who violate out-of-service orders, (3) $10,000 for carriers requiring or permitting drivers to operate vehicles after the driver was placed out of service, and (4) $2,000 per day for operating vehicles placed out of service or for carriers that require or permit drivers to operate these vehicles, up to a maximum fine of $10,000.

In proposing these additional monetary penalties, FHWA noted that out-of-service orders directed to carriers in an imminent hazard situation are issued to prevent death or serious injury that is likely to result, if the vehicle, driver, or carrier operations continue uncorrected. To ignore or violate such orders is considered in the same category as substantial health and safety violations, and the penalties proposed reflect the extreme seriousness of such blatant disregard for safety.

Currently, states set their own widely varying penalties for truck safety violations found during roadside inspections (and for noncompliance with out-of-service orders) and have little information on the enforcement of such penalties. Table 3.1 notes current state monetary penalty
information for carrier certification and for noncompliance with out-of-service orders, as provided to us on the questionnaires.

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<tr>
<th>Violation</th>
<th>Number of states</th>
<th>Without penalty</th>
<th>With penalty</th>
<th>Dollar range of penalty</th>
<th>Average maximum penalty</th>
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<td>Carrier failure to certify</td>
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<td>23</td>
<td>$35 to $2,000</td>
<td>$556</td>
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<tr>
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<td>$35 to $2,000</td>
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<td>43</td>
<td>$35 to $5,000</td>
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</table>

*Ranges and maximum penalties are based on only those states with maximum penalty amounts. Average penalty amounts shown are a simple arithmetic average, computed by adding all maximum penalty amounts and dividing by the number of states with a maximum penalty for each offense.

As table 3.1 illustrates, 24 states did not have monetary penalties for carriers failing to certify that out-of-service violations were corrected; 23 states lacked penalties for carriers falsely certifying that out-of-service violations had been corrected; and 4 states had no penalties for carriers and drivers violating out-of-service orders. Of the 24 states that had penalties for failure to certify, 10 were among those that consistently tracked carrier certification and only 3 of the 10 often pursued these penalties. Because so little verification has been done to determine false certification, it is doubtful that many carriers have been fined for this violation. Although more states have generally higher penalties for violating out-of-service orders, few states could provide information on how often these penalties were used.

The number of penalties assessed and collected are generally administered by state and local courts. This usually involves many different courts within the state, and none of the four states we visited had information on the penalties assessed or fines collected for noncompliance. Lower monetary penalties that may be considered a part of "the cost of doing business," coupled with inconsistent assessment and collection of fines, have been frequently mentioned as contributing to noncompliance. On the other hand, the trucking industry also complains that some states charge unreasonably high fines. CVSA has dedicated a special committee to (1) recommend a maximum fine schedule that includes a $1,000 fine for violating out-of-service orders, (2) work for voluntary state adoption of the schedule, and (3) educate state and local judicial officials, in an effort to help alleviate the problem of inconsistent monetary penalties.
The responses from our 47-state questionnaire reflected both the lack of priority on ensuring compliance and how little the states knew about how often out-of-service orders were violated. In 1989, for example, 7 states noted they had never detected violation of out-of-service orders and 23 states could not provide an estimate of how many times these violations had been detected in their states. Most of the remaining 17 states could provide only estimates. Eleven of these states estimated that they had detected fewer than 20 out-of-service violations, while the remaining six states noted from 30 to 277 violations detected.

One MCSAP coordinator noted in his questionnaire response that violating out-of-service orders should result in license disqualification under the Commercial Driver's License penalty provisions. He also thought a fine of $1,000 for the first offense should be levied.

To implement the Commercial Motor Vehicle Safety Act of 1986, CDL regulations call for a 1-year license disqualification (3 years if transporting hazardous materials) for the first offense and stipulate a lifetime disqualification for a second offense. Offenses include such acts as driving under the influence of alcohol or other drugs, leaving the scene of an accident, or using a commercial motor vehicle in the commission of a felony.

Shorter minimum disqualification periods are provided under the act for "serious traffic offenses" such as excessive speeding and reckless driving. The Secretary of Transportation can also add similar violations of a state or local law relating to motor vehicle traffic control which are determined by regulation to be serious. Using this provision, the Secretary has by regulation added convictions for (1) following the vehicle ahead too closely and (2) improper lane changes, to the offenses designated as serious traffic offenses. Under CDL regulations a driver who, during a 3-year period, is convicted of two serious traffic offenses in separate incidents is disqualified for a period of 60 days. A third conviction within 3 years results in a 120-day disqualification.

Since trucks placed out of service have already been identified as imminently hazardous and drivers identified as unqualified to drive, we believe this offense falls into the serious traffic offense category—comparable to reckless driving or excessive speeding, already included. Adding it to the serious traffic violations could be accomplished by a rulemaking procedure to amend the CDL regulations. Given the wide range of state monetary penalties and uncertainty of the outcome of
assessments for noncompliance, this action could provide a more uniform penalty for failure to properly correct out-of-service violations. The states are required to adopt CDL provisions by October 1993 or face losing a portion of their highway trust funds.

CVSA has also requested FHWA to initiate action to add violation of out-of-service orders to CDL disqualification provisions. The CVSA proposal calls for the more severe 1-year penalty for violation of out-of-service orders because it considers it imperative that the national inspection program possess an adequate deterrent for those who violate the orders. While we agree that this violation should be strongly discouraged, we believe it is more similar to violations included under the serious traffic offense category.

Currently, the inspection forms do not provide for recording reinspection activity. Although some states conduct reinspections, they often do not record this information. If they do, it is usually handwritten across the inspection forms because none of the state forms contain preprinted space for it. We found this method used in Oregon and Kentucky. Further, no reinspection information is put into the Safetynet system, although the CVSA Data Committee was exploring ways to do this. Consideration was being given to changing the inspection forms and to using a uniform rubber stamp to record reinspection information on the states' copy of the inspection forms. By recording reinspection information, such as the methods used and the result achieved, states can increase overall awareness of compliance, direct efforts where most needed, and determine the most effective means of ensuring compliance.

Prior to 1984 the inspection forms contained a separate certification for the repair person correcting out-of-service violations, noting the person's name and date of repair. We obtained copies of the inspection forms from 48 states and found that 13 states still use the separate repair person certification. Eight of these 13 states also request the name of the repair facility. The current inspection form, suggested for use by FHWA, uses only a one-stage certification by carrier officials that does not segregate out-of-service from less serious violations. This eliminates information useful for verifying whether or not the out-of-service violations were corrected before the trip was continued. The Michigan study, funded by FHWA, pointed to lack of documentation of repair as one of the primary verification problems encountered. In addition, this more specific information would be particularly helpful in determining the amount of penalty due under the proposed FHWA fine structure,
which assesses additional amounts for each day of operation in an out-of-service condition.

Conclusions

FHWA and the states have several opportunities to improve MCSAP and enhance compliance with out-of-service orders. Complete, timely Safetynet inspection information is essential to help focus federal and state activities on carriers with poor safety records. Timely entry of inspections not only would provide for more comprehensive nationwide inspection information, but also could allow states to use the system to track carrier certifications. In the interim, manual efforts by federal officers may be needed to provide complete inspection information for states that are not transmitting complete and timely Safetynet inspection information to FHWA. FHWA has focused more attention on the importance of completing this information and has taken initial steps to correct the problem—particularly in states not transmitting any inspection data—but can expand this effort to also include the states that do not consistently transmit these data to FHWA.

FHWA has recognized weaknesses in the monetary penalties available for noncompliance and has initiated rulemaking to provide additional federal penalties for carriers and drivers. Our review shows that this is a much-needed step, given the wide diversity of fines and the lack of information on their use reported by the states. Because states are not required to adopt the federal penalty structure, however, we believe additional action is needed. Making noncompliance with out-of-service orders a CDL license disqualification under the serious traffic offenses category would further discourage drivers from violating out-of-service orders and provide a more uniform penalty. These actions, in addition to minor changes in the inspection forms, should also help to increase compliance.

Recommendations to the Secretary of Transportation

We recommend that the Secretary of Transportation direct the Administrator, FHWA, to take the following actions:

- Expand planned FHWA procedures for states not transmitting any Safetynet data to include those states not consistently transmitting complete and timely Safetynet inspection data. This should include development of individual state action plans and periodic progress reports to the Secretary of Transportation on the overall status of Safetynet completion in MCSAP states.
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- Direct FHWA officers in the states not transmitting complete and timely Safetynet inspection data to forward copies of all inspections with out-of-service violations to the carriers' home state to supplement carrier information.
- Initiate a rulemaking procedure to add noncompliance with out-of-service orders to the CDL serious traffic offense provisions that require a license disqualification.
- Modify inspection forms to accept reinspection information and to require separate repair person certification of out-of-service violations to provide more specific information on the correction of these violations.

Agency Views and Our Response

We discussed the facts and recommendations of this chapter with FHWA officials responsible for MCSAP. Except for proposed recommendations concerning Safetynet and forwarding of inspection forms, officials agreed with our findings. We had proposed in the draft of this report that FHWA work with all states not transmitting timely, routine Safetynet data to FHWA. FHWA officials noted that they had issued a memorandum in March 1990 to the states that strongly encourages routine transmission of Safetynet inspection data to FHWA headquarters by October 1, 1990. This memorandum provides for a possible loss of MCSAP funding to those states failing to routinely transmit the data, but allows for additional time if unusual circumstances exist. If additional time is required, FHWA also will require that states outline necessary tasks and a schedule for completion in their annual plans to FHWA. In the interim, FHWA officials in state and regional offices have also been directed to analyze state Safetynet development for the states that had not transmitted any inspection data. These reports are to focus on problems in the states and on the resource realignment needed to correct these problems.

We agree with this approach but believe that the interim reporting efforts should be expanded to include any state that is not consistently transmitting inspection data to FHWA. We modified our proposed recommendation that directed FHWA to work with all states to reflect the need to expand their actions to include additional states not covered by the March 1990 memorandum. Second, we proposed that FHWA report to the Secretary the status of Safetynet and that inspection data should be manually sent to a carrier's home state until Safetynet is fully operational. FHWA officials told us that they thought neither the report to the Secretary of Transportation nor the forwarding of inspection forms would be necessary because of the pending completion of Safetynet inspection data. We agree that once planned efforts are completed and
all states are consistently transmitting these data, these actions will be unnecessary, but we believe that until that happens they will help focus increased attention on Safetynet completion and further encourage it.

In agreeing with our recommendation to include violation of out-of-service orders in the serious traffic violation category under CDL, FHWA officials noted that this had also been recommended during a June 1990 FHWA-sponsored commercial vehicle safety workshop, but had not been acted upon.
## Appendix I

Control Procedures Used by the States as Noted on Questionnaires, December 1989

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## Appendix I

Control Procedures Used by the States as Noted on Questionnaires, December 1989

### Type of procedure

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<td><strong>21</strong></td>
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Appendix II

Major Contributors to This Report

Resources, Community, and Economic Development Division, Washington, D.C.

Ron E. Wood, Assistant Director
Jonathan T. Bachman, Design Methodologies, Technical Assistance Group

Cincinnati Regional Office

James E. Hatcher, Assistant Regional Manager
Donald J. Heller, Issue Area Manager
Linda S. Standau, Evaluator-in-Charge
Lori A. Williams, Staff Evaluator
Cheryl K. Andrew, Staff Evaluator
Mary J. Lewnard, Technical Assistance Group
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Chapter 1
Introduction

Figure 1.3: A Lug Nuts Check

Figure 1.4: An Out-Of-Service Decal for Serious Violations