
**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

PENNDOT RESEARCH



**I-95 CORRIDOR COALITION
FIELD OPERATIONAL TEST 10:
COORDINATED SAFETY MANAGEMENT**

**VOLUME III: A TOOLBOX FOR ENHANCING MOTOR
CARRIER SAFETY ENFORCEMENT**

**University-Based Research, Education and Technology Transfer Program
AGREEMENT NO. 359704, WORK ORDER 8**

FINAL REPORT

August 2001

By M.L. Patten

PENNSSTATE



Pennsylvania Transportation Institute

**The Pennsylvania State University
Transportation Research Building
University Park, PA 16802-4710
(814) 865-1891 www.pti.psu.edu**

1. Report No. FHWA-PA-2001-020-97-04 (8)		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle I-95 Corridor Coalition Field Operational Test # 10: Coordinated Safety Management Volume III. A Toolbox for Enhancing Motor Carrier Safety Enforcement				5. Report Date August 17, 2001	
				6. Performing Organization Code	
7. Author(s): Michael L. Patten, The Pennsylvania State University				8. Performing Organization Report No. PTI 2002-04, III	
9. Performing Organization Name and Address The Pennsylvania Transportation Institute Transportation Research Building The Pennsylvania State University University Park, PA 16802-4710				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. 359704 Work Order 8	
12. Sponsoring Agency Name and Address The Pennsylvania Department of Transportation Bureau of Planning and Research 555 Walnut Street, 6 th Floor Forum Place Harrisburg, PA 17101-1900				13. Type of Report and Period Covered Final Report 7/9/98-8/31/01	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract Coordinated Safety Management is an I-95 Corridor Coalition-sponsored project which was designed to identify the factors that contribute to exemplary motor carrier safety performance and develop outreach materials and tools to help carriers operate more safely. This document provides state motor carrier agencies with information to improve their commercial vehicle operations (CVO) enforcement and educational activities. The Toolbox includes various ways to address these issues. Some actions can be used individually, while others require mutually supportive actions implemented cooperatively by the enforcement agencies and the motor carrier industry. Some actions focus exclusively on enforcement of rules and regulations, while others are ways to educate the industry on safety issues. However, no matter what type of action is considered, those who are tasked with addressing the problems need to have information on the likely effectiveness of different actions that can be used to deal with these problems. This Toolbox is designed to provide a summary of this type of information.					
17. Key Words Motor carrier safety, safety education, I-95 Corridor Coalition				18. Distribution Statement No restrictions. This document is available from the National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages	22. Price

I-95 CORRIDOR COALITION
FIELD OPERATIONAL TEST #10: COORDINATED SAFETY MANAGEMENT

VOLUME III: A TOOLBOX FOR ENHANCING MOTOR CARRIER
SAFETY ENFORCEMENT

University-Based Research, Education and Technology Transfer Program
Agreement No. 359704
Work Order 8

Submitted to

The Pennsylvania Department of Transportation

By

Michael L. Patten
Pennsylvania Transportation Institute
The Pennsylvania State University
Transportation Research Building
University Park, PA 16802-4710

August 2001

This work was sponsored by the Pennsylvania Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration. The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of either the Federal Highway Administration, U.S. Department of Transportation, or the Commonwealth of Pennsylvania at the time of publication.

This report does not constitute a standard, specification, or regulation.

PTI 2002-04, III

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. HOW TO USE THE TOOLBOX	2
3. TOOLS FOR ENHANCING MOTOR CARRIER SAFETY ENFORCEMENT	3
Roadside Safety Inspections	4
Use of Fixed Safety Inspection Sites	5
Use of Mobile Safety Inspection Teams	6
Use of ASPEN Software to Collect and Access Inspection Data	7
Use of the Inspection Selection System to Select Vehicles and Carriers for Inspection	8
Exchange of Data via the Safety and Fitness Electronic Records Mailbox	9
Use of SafeStat to Identify Carriers Requiring Safety Enforcement Actions	10
Use of PRISM to Monitor Motor Carriers and Suspend Vehicle Registrations If Necessary ...	11
Roadside Electronic Clearance of Vehicles to Assist in Targeting Vehicles for Roadside Safety Inspections	12
Regular On-Site Motor Carrier Safety Compliance Reviews and/or Audits	13
Use of Weigh-in-Motion Equipment for Weight Enforcement	14
Use of Mobile Weight-Enforcement Teams	15
State Commercial Vehicle Crash Investigation Program	16
Annual or Periodic State Commercial Vehicle Safety Inspection Program	17
Checks of Motor Carrier Safety Records Before Issuing Registration Documents	18
Regular Provision of Safety Performance Information to Carriers	19
Use of Educational Programs to Help the General Motoring Public Understand How to Share the Road with Large Trucks	20
State Sponsored Safety Seminars, Classes and Conferences for Motor Carriers	21
State Maintained Internet Site with General Motor Carrier Safety and Other Information	22
State Maintained Internet Site that Posts Motor Carrier Rules and Regulations	23
Motor Carrier Safety-related Publications Produced and Distributed by State CVO Agencies	24
Site Visits by State Agencies to Assist Motor Carriers in Developing and Enhancing Safety Programs	25
Periodic Meetings Between State Safety Oversight and Enforcement Agencies and Motor Carrier Representatives to Discuss Key Issues	26
Inclusion of Motor Carrier Representatives in CVO Planning Activities	27
Cooperation with the Motor Carrier Industry in Safety Education Activities	28
REFERENCES	29

1. INTRODUCTION

The purpose of *A Toolbox for Enhancing Motor Carrier Safety Enforcement* (Toolbox) is to provide state motor carrier agencies with information to improve their commercial vehicle operations (CVO) enforcement and educational activities. The Toolbox includes various ways to address these issues. Some actions can be used individually, while others require mutually supportive actions implemented cooperatively by the enforcement agencies and the motor carrier industry. Some actions focus exclusively on enforcement of rules and regulations, while others are ways to educate the industry on safety issues. However, no matter what type of action is considered, those who are tasked with addressing the problems need to have information on the likely effectiveness of different actions that can be used to deal with these problems. This Toolbox is designed to provide a summary of this type of information.

2. HOW TO USE THE TOOLBOX

The information in the next section of this document presents overviews and discussions of various tools that can be used by State motor carrier enforcement and regulatory agencies to improve motor carrier safety. While this information can be used as a starting point for deciding which activities to undertake, users should also review other, more detailed information before beginning.

The tools in the following section are divided into three broad areas. First, are enforcement activities. These tools can be used to identify vehicles, drivers and carriers that violate applicable rules or regulations. Many of the enforcement tools also have built-in methods to help the violators address recurring problems and improve the safety of their operations. The second set of tools provide methods to educate carriers and drivers, as well as other groups, about motor carrier safety and operations. The third group of tools can be used by the CVO agencies to develop problem solving partnerships with the motor carrier industry.

Following is an example of the format used to present the tools:

Tool: *The Name of the Tool*

Type: What type of tool it is, i.e., enforcement, educational, or partnering.

Objective: What the tool is expected to do.

Description: A brief description of the tool.

Participants: Lead Organization: The type of organization most appropriate to take the lead in implementing the tool.

 Partners: Any partners that could help in the application of the tool.

Discussion: Any issues and/or other information relevant to the use of this tool.

3. TOOLS FOR ENHANCING MOTOR CARRIER SAFETY ENFORCEMENT

Tool: *Roadside Safety Inspections*

Type: Enforcement

Objective: The roadside safety inspection program is designed to improve commercial motor vehicle safety and promote uniformity in compliance & enforcement, while minimizing duplication of inspection efforts and unnecessary operating delays for the motor carrier industry.

Description: The North American Standard Inspection Procedure was developed to help ensure compliance with safety regulations and uniform inspection procedures. Through the Motor Carrier Safety Assistance Program (MCSAP), in cooperation with the Federal Motor Carrier Safety Administration (FMCSA), states conduct random safety inspections of both commercial vehicles and drivers to make sure that safety regulations are being followed.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: The inspection program has five levels of which the following three are the most commonly performed at the roadside:

- Level I— North American Standard Inspection: This is the most complete and thorough of the standardized inspection procedures. It includes examination of the driver's license, logbook, and other documents and extensive vehicle checks; including measurement of brake performance, tires, and steering mechanism.
- Level II— Walk Around Driver/Vehicle Inspection: This covers both driver and vehicle aspects, but it is conducted without inspecting underneath the vehicle.
- Level III— Driver Only Inspection: This inspection level is primarily a roadway examination of all the driver-related aspects of the North American Standard Inspection Procedure.

Vehicles and drivers that are found to have significant violations during an inspection are placed out-of-service (OOS) until the violation is corrected.

The roadside inspection program has been in place for some time and has proven very successful in removing unsafe vehicles and commercial drivers from the roadways.

CVO enforcement officials are unanimous in rating roadside inspections as an excellent method to enhance motor carrier safety.¹

Tool: *Use of Fixed Safety Inspection Sites*

Type: Enforcement

Objective: Provide adequate, safe locations for conducting roadside safety inspections.

Description: The provision of strategically located inspection facilities with the necessary infrastructure to safely conduct inspections.

Participants: Lead Organization: CVO Enforcement Agencies

 Partners: None

Discussion: Fixed safety inspection sites have proven very successful by those states that use them.¹ They strategically locate these sites on highways with high levels of truck traffic. Most times the fixed sites have installed infrastructures to support the inspection process such as electrical outlets and telephone lines. These sites also have safe locations to do the inspections and parking areas for vehicles placed out-of-service.

The inspection sites are often co-located with weight enforcement facilities.

Fixed inspection sites are most useful in areas with relatively few truck corridors. This allows the sites to cover the majority of truck traffic. Where there are many possible routes to bypass the sites they may prove less useful.

Tool: *Use of Mobile Safety Inspection Teams*

Type: Enforcement

Objective: To conduct roadside safety inspections at varying locations.

Description: Traveling teams of inspectors with adequate equipment to safely conduct roadside inspections at varying locations.

Participants: Lead Organization: CVO Enforcement Agencies

 Partners: None

Discussion: CVO enforcement officials are unanimous in rating mobile inspection teams an excellent method to enhance motor carrier safety.¹

These teams can conduct inspections virtually anywhere that large trucks travel. This is a very important attribute in those areas where trucks are not restricted to specific roads or corridors.

The inspection teams are equipped with laptop computers and communications equipment for accessing the various motor carrier safety databases. They also have the necessary safety equipment for establishing safe inspections sites.

A major drawback to mobile inspections is that they are often conducted at locations with limited parking for vehicles that are placed out-of-service.

Tool: *Use of ASPEN Software to Collect and Access Inspection Data*

Type: Enforcement

Objective: To provide inspectors and other enforcement personnel with accurate, up-to-date safety information on drivers, vehicles and motor carriers.

Description: The ASPEN software suite provides tools for CVO officers to collect and upload current information on vehicle and driver safety inspections. ASPEN allows inspectors view motor carrier information in a standard “snapshot” format. Enforcement officials are provided with driver identification, accident and citation history, vehicle identification number and date of last out-of-service inspection, and motor carrier identification and carrier safety rating information.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: ASPEN is the driver/vehicle inspection database software used by most states and the Federal government. ASPEN runs on laptop computers and is used to collect inspection details and print inspection reports. It includes communication features to electronically transfer inspection results to the SAFER & SAFETYNET databases.

ASPEN is composed of the following primary components:

CDLIS Access—This is software for retrieving driver status reports from the Commercial Driver License Information System (CDLIS). It is coupled to ASPEN, but can be operated as stand alone software.

PIQ (Past Inspection Query)—PIQ accesses a national database of recent inspection reports (those done within the last 60 days), and retrieves copies and summaries. It allows checking for unrepaired defects and driver hours problems.

ISS (Inspection Selection System)—ISS is the primary tool used on the roadside to screen motor carrier vehicles and determine the usefulness of conducting an inspection. ISS returns a “carrier snapshot” which includes many critical safety performance indicators. ISS uses a local database which is refreshed regularly via SAFER.

A survey of state motor carrier safety agencies overwhelmingly indicated that the ASPEN system is extremely useful in maintaining and using inspection data.¹

Tool: *Use of the Inspection Selection System to Select Vehicles and Carriers for Inspection*

Type: Enforcement

Objective: Assist inspectors in the selection of commercial vehicles and drivers with poor prior safety performance, and indicate those whom had very few or no roadside inspections in the past.

Description: The Inspection Selection System (ISS) helps in targeting unsafe carriers and reduce the inspection burden on carriers proved to be safe. Use of the ISS allows inspectors to focus on less safe vehicles and drivers and therefore increase their efficiency.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: The ISS was developed as a part of the ASPEN roadside inspection computer software system. The reason for developing the ISS came from the knowledge that motor carriers with high roadside inspection out-of-service (OOS) rates are more likely to have unsatisfactory safety fitness ratings and accident rates. However, to estimate this rate, the carrier must have had a specific number of roadside inspections in a defined period of time. Therefore, ISS was designed to better distribute roadside inspections among commercial vehicles and drivers and to specifically target those with prior poor safety performance.

A "problem carrier" targeting system, ISS uses carrier safety performance and inspection history data to rank carriers according to the relative value of conducting a vehicle inspection. The main objective of ISS is to recommend and increase roadside inspections on carriers with poor safety performance records (accidents, vehicle out-of-service defects and other safety problems) while also focusing on carriers with very few or no roadside inspections where there is little available information. ISS runs within ASPEN and also as a stand alone.

Tool: *Exchange of Data via the Safety and Fitness Electronic Records Mailbox*

Type: Enforcement

Objective: The Safety and Fitness Electronic Records (SAFER) mailbox facilitates electronic collection and distribution of data between front-end systems like ASPEN and management information systems such as SAFETYNET.

Description: The Safety and Fitness Electronic Records (SAFER) System provides users with access to interstate carrier, vehicle, and driver safety and credential information over a nationwide data network. This information allows the roadside inspector to select vehicles and/or drivers for inspection based on the number of prior carrier inspections, as well as their safety and credential historical information.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: The SAFER system is being expanded to include the capability to provide carrier, vehicle, and driver safety and credential information to fixed and mobile roadside inspection stations. This information will allow roadside inspectors to select vehicles and/or drivers for inspection based on the number of prior carrier inspections, as well as carrier, vehicle, and driver safety and credential historical information. SAFER will also eventually have links through the Internet.

State motor carrier safety enforcement agencies have rated the SAFER system as moderately successful in address carrier safety issues.¹

Tool: *Use of SafeStat to Identify Carriers Requiring Safety Enforcement Actions*

Type: Enforcement

Objective: Identify high-risk carriers for remedial actions.

Description: The Safety Status Measurement System (SafeStat) is a data-driven, performance-based tool used to identify potentially high-risk carriers for inclusion in the PRISM improvement process

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: Under SafeStat, a carrier's safety performance is assessed based on all available data (roadside inspection, compliance reviews, crashes, enforcement history, etc.). New safety information is added to this data source on a continuous basis, and SafeStat uses this information to provide current safety indicators for all carriers for which there is sufficient data.

SafeStat is in very wide use by CVO enforcement agencies and has proven exceptionally successful in identifying unsafe carriers.¹

Tool: *Use of PRISM to Monitor Motor Carriers and Suspend Vehicle Registrations If Necessary*

Type: Enforcement

Objective: The Performance and Registration Information Systems Management (PRISM) program links the commercial vehicle registration process to motor carrier safety to: (1) Determine the safety fitness of the motor carrier prior to issuing license plates; and (2) Encourage carriers to improve their safety performance through an improvement process and, where necessary, the application of registration sanctions.

Description: The PRISM program includes two major processes—the Commercial Vehicle Registration Process, and the Motor Carrier Safety Improvement Process (MCSIP) that work together to identify motor carriers and hold them responsible for the safety of their operation.

Participants: Lead Organization: CVO Regulatory Agencies
Partners: CVO Enforcement Agencies

Discussion: The Commercial Vehicle Registration Process provides the framework for the PRISM program. It serves two vital functions. First, it establishes a system of accountability by insuring that no vehicle is plated without identifying the carrier responsible for the safety of the vehicle and second, the use of registration sanctions as incentives for unsafe carriers to improve their safety performance. Motor Carrier Safety Improvement Process (MCSIP) is the means by which carrier safety is systematically tracked and improved.

The PRISM program has been very successful. Some of the benefits of PRISM are:

- Accountability—Identification of the carrier (via their USDOT number) responsible for the safe operation of the vehicles being registered has clearly produced a major safety benefit. This allows safety inspections, accidents, and driver violations to be more accurately tied back to the responsible motor carrier.
- A Performance-Based Approach to Safety Management—The primary means for identifying potentially poor performing carriers based on their safety records which is then linked to the carrier through the carrier's USDOT number.
- Improved Productivity—The PRISM program can increase both the efficiency and effectiveness of Federal and State safety efforts through the efficient allocation of scarce resources through a more accurate targeting of compliance reviews on the highest-risk carriers.

Tool: *Roadside Electronic Clearance of Vehicles to Assist in Targeting Vehicles for Roadside Safety Inspections*

Type: Enforcement

Objective: Assist in the selection of vehicles for inspection while allowing vehicles with valid inspections to pass without stopping.

Description: As commercial vehicles pass the electronic clearance equipment at mainline speeds inspectors are provided with vehicle and carrier information that can be used to access inspection decision making systems such the ISS. If warranted, the vehicle is stopped at the checkpoint for an inspection. Otherwise, the vehicle passes the checkpoint without stopping.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: Electronic clearance services provide an opportunity to improve the commercial vehicle industry's productivity and reduce its costs. These services can also help to improve the efficiency of regulatory agencies.

In the past, commercial trucks and buses were required to make frequent stops at state and international check points where they went under routine weight, credential, and safety inspections. Electronic clearance systems enable regulatory authorities to streamline this process. A wireless data communications system that is used to identify a motor carrier and its electronic credentials are verified automatically while the vehicle is traveling past the roadside reader at highway speeds. This can allow commercial vehicles to travel across state borders without being stopped for verification of paperwork and permits regarding fuel usage and tax, registration, safety clearance, etc. In addition, this service can be combined with computer networking infrastructure, which would connect roadside readers to central databases and administration centers, and therefore would be able to facilitate state tax report preparation, auditing, and insurance requirements.

Tool: *Regular On-Site Motor Carrier Safety Compliance Reviews and/or Audits*

Type: Enforcement/Educational

Objective: Ensure that motor carriers are complying with applicable rules and regulations.

Description: Compliance reviews are in-depth reviews of a carrier's compliance with applicable safety and hazardous materials regulations.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: N/A

Discussion: A compliance review consists of CVO enforcement officials entering a carrier's place of business to examine their driver qualification files, drug and alcohol testing records, driver's hours of service files, vehicle maintenance, and other operating files.

These reviews are designed to provide the State and Federal Government with statistical information that can be used to determine a carrier's degree of compliance. Carrier records are reviewed to build a basis for recommending accident countermeasures and further decision making which may involve changing the carrier's rating, taking enforcement action, placing the carrier/shipper in a selective monitoring program, or issuing an out-of-service order.

Additionally, these reviews provide an excellent opportunity for enforcement officials to develop cooperative relationships with carriers to educate them on potential methods for improving their safety activities.

CVO enforcement agencies have indicated that compliance reviews are an excellent method for increasing motor carrier safety.¹

Tool: *Use of Weigh-in-Motion Equipment for Weight Enforcement*

Type: Enforcement

Objective: To assist in the enforcement of applicable commercial vehicle weight regulations.

Description: Weigh-in-motion (WIM) systems weigh vehicles as they drive over the scales. Typically, the vehicles cross the scales at low speed although some WIM equipment can be used at highway speeds.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: Because the vehicles being weighed do not have to stop, WIM equipment allows enforcement personnel to process larger numbers of vehicles than is possible with static scales. This improves the efficiency of the weight enforcement process. Additionally, motor carriers experience enhanced productivity because their vehicles are not tied up in long queues waiting to be weighed.

WIM has one significant drawback in that it is not as accurate as static scales. This may inhibit WIM-based enforcement activities in some jurisdictions unless the WIM recorded weights are verified on more accurate scales.

Fixed WIM sites may also have reduced effectiveness if there are potential alternative routes overweight vehicles could use to bypass the WIM site.

Tool: *Use of Mobile Weight-Enforcement Teams*

Type: Enforcement

Objective: To conduct weight enforcement activities at sites where permanent scales are not available.

Description: Weigh-in-motion (WIM) systems weigh vehicles as they drive over the scales. Typically, the vehicles cross the scales at low speed although some WIM equipment can be used at highway speeds.

Mobile WIM equipment is transportable between sites.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: None

Discussion: Because the vehicles being weighed do not have to stop, WIM equipment allows enforcement personnel to process larger numbers of vehicles than is possible with static scales. This improves the efficiency of the weight enforcement process. Additionally, motor carriers experience enhanced productivity because their vehicles are not tied up in long queues waiting to be weighed.

Mobile WIM teams can operate at locations where there are not permanent scales. The mobile teams have the additional advantage of being able to frequently change locations which can help to eliminate the problem of vehicles bypassing the weighing sites.

Surveyed CVO enforcement personnel have rated mobile weight enforcement teams as an extremely effective method of identifying overweight vehicles.¹

WIM has one significant drawback in that it is not as accurate as static scales. This may inhibit WIM-based enforcement activities in some jurisdictions unless the WIM recorded weights are verified on more accurate scales.

Tool: *State Commercial Vehicle Crash Investigation Program*

Type: Enforcement

Objective: To help identify the significant contributing factors in commercial vehicle crashes by conducting in-depth investigations of selected crashes.

Description: Under this program state CVO enforcement personnel would conduct in-depth investigations of selected truck crashes to determine what vehicle and driver factors significantly contributed to the crashes.

Participants: Lead Organization: CVO Enforcement Agencies
Partners: Motor-Carriers, Police Agencies

Discussion: Many factors can contribute to a highway crash. An accident investigation program can provide the means to conduct in-depth investigations and analyses of selected truck crashes. The investigations can include the reconstruction of an crash and a study of the factors that may have contributed to the crash. The factors include environmental, human, and mechanical. The ultimate objective of the program is the utilization of these identified causation factors to prevent crashes of a similar nature from recurring.

The information gathered during the investigations can be consolidated and any trends noted. Additionally, lists of identified causation factors can be distributed to motor carriers to help them develop more successful driver training and vehicle maintenance programs.

Motor carrier safety officials consider this a very successful component of a motor carrier safety program.¹

Tool: *Annual or Periodic State Commercial Vehicle Safety Inspection Program*

Type: Enforcement

Objective: To identify and correct safety defects in commercial vehicles via regular periodic vehicle inspections.

Description: This is a program where trucks are periodically inspected by state certified inspectors. These inspections usually check a vehicle's basic safety and operating equipment (tires, lights, brakes, etc.) to ensure that they are up to standards and operational.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: Some states mandate periodic inspections of motor vehicles including autos, motorcycles, buses, trucks, and other commercial vehicles. These inspections are usually separate from and in addition to any inspections conducted as part of the MCSAP inspection program.

When a vehicle passes an inspection a coded sticker or other identifying mark is affixed to it. Should a vehicle fail the inspection, repairs must be obtained before it can be re-inspected, and in some cases driven. Items checked during the inspections include:

- VIN number, registration, license plates, and insurance documents
- Windshield integrity
- Windshield wipers
- Headlights
- Turn signals and 4-way flashers
- Tail lamps, brake lights, and backup lights
- Horn
- Exhaust system
- Tires
- Body panel integrity
- Parking/emergency brake
- Seat belts
- Ball joints, steering, and suspension
- Emissions test/emissions components

CVO safety enforcement agencies have indicated that periodic inspections are a very good method to enhance motor carrier safety.¹

Tool: *Checks of Motor Carrier Safety Records Before Issuing
Registration Documents*

Type: Enforcement

Objective: To ensure that motor carriers have good safety records before they are issued vehicle registration documents.

Description: This program would link the various motor carrier regulatory databases (e.g., vehicle registration) to the motor carrier safety database to allow checking of a carrier's safety record prior to issuing documents.

Participants: Lead Organization: CVO Regulatory Agencies
Partners: CVO Enforcement Agencies

Discussion: To date, the issuance of motor carrier documents such as vehicle registrations and special permits has remained separate from the various motor carrier safety activities.

Several states have begun checking the safety records of motor carriers prior to issuing other state documents. If a carrier's safety record is not up to a certain level, the states initiate some sort of remedial action. The action undertaken depends on how poor the carrier's record may be and could range from denial of the document to working with the carrier to improve their safety record.

While few states currently conduct safety record checks in conjunction with vehicle registration activities, those that do consider this a very effective method to promote motor carrier safety.¹

Tool: *Regular Provision of Safety Performance Information to Carriers*

Type: Enforcement/Educational

Objective: To provide motor carriers information about their documented safety records.

Description: With this program, CVO safety agencies would regularly provide motor carriers with information about their safety performance.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: Motor carriers may be able to improve their safety records and programs if they have accurate up-to-date information about their performance on inspections and other safety enforcement activities. The carriers could use the information to spot trends and note areas where their safety programs could be improved.

Several states periodically send information of this type to carriers.¹ This information is usually sent as a printed report although computerized databases will also allow it to be transmitted electronically.

To date, few states safety performance information to carriers. Those that do provide this type of information note that it is an excellent method to enhance carrier safety.¹

Tool: *Use of Educational Programs to Help the General Motoring Public Understand How to Share the Road with Large Trucks*

Type: Educational

Objective: Inform the general public on how to safely share the road with trucks.

Description: Programs to inform the general traveling population about the operating characteristics of large-trucks and how to drive safely near them.

Participants: Lead Organization: State DOT's
Partners: Motor Carriers, Auto user groups

Discussion: Often the traveling public is not aware of the operating characteristics of large trucks and how to drive safety near them. Additionally, many auto drivers have a negative view of truck drivers.

These educational programs should concentrate on informing the public about the different operating characteristics of trucks as compared to cars such as their longer stopping distances and wider turning radii. Other topics could include truck blind spots and presenting truck drivers in a positive light.

The information could be provided via various types of media including: brochures, public service announcements, presentations at public venues (e.g., state fairs, schools, etc.), posters, etc.

It may be useful to utilize professional truck drivers to present this information to show that they are regular people who make every effort to drive safely and courteously.

The U.S. DOT's *No-Zone* program informing motorists about large truck blind spots is an example of a successful public education program.

Tool: *State Sponsored Safety Seminars, Classes and Conferences for Motor Carriers*

Type: Educational

Objective: To inform and educate motor carriers on safety and other important motor carrier issues.

Description: Motor carrier educational programs and activities sponsored by state CVO agencies.

Participants: Lead Organization: CVO Enforcement and Regulatory Agencies

Partners: Motor Carriers

Discussion: The topics covered by safety classes and seminars can range from broad industry-wide topics or those tailored to a specific topic or segment of the industry. The presentations can be conducted on a regular schedule or provided as requested by motor carriers.

The actual content of classes provided by a specific CVO agency will have to be tailored to its areas of responsibility. Some examples of possible topics for seminars, classes, and conferences are:

- Introduction to Federal Motor Carrier Safety Regulations
- Courses on specific topics such as Commercial Driver License (CDL) requirements, hours-of-service regulations, inspection out-of-service criteria
- Presentations on drug and alcohol testing
- Demonstrations of roadside inspections
- Winter driving tips

These types of educational activities are considered extremely effective by state CVO officials.¹

Tool: *State Maintained Internet Site with General Motor Carrier Safety and Other Information*

Type: Educational

Objective: Provide a quick source of important safety and other information.

Description: Internet sites (Web pages) are sources of information provided via computerized access. They allow for instant access to information and provide an excellent method to disseminate up-to-date information.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: The Internet can provide a very timely, accurate, and cost-effective method for information access and exchange². The types of information that could be provided on an Internet site include:

- CVO Statutes and rules
- Operating authority details
- CDL information (process and regulations)
- Vehicle size and weight regulations
- Descriptions of permitting processes
- Road information
- Access to publications
- Points of contact for CVO enforcement and regulation
- Hazardous Materials and environmental information

When developing a Web site it is important to make sure the site is “user friendly,” that it provides information that is needed by motor carries, and that it is kept up-to-date. Working closely with motor carriers during development of the Web site will help to ensure that these goals are met.

In a survey of state motor carrier agencies, approximately half of the responding agencies indicated that they maintain a Web site for this purpose. They considered the sites to be successful method to provide this information.¹

The Internet can also be utilized for “on-line” processing of special permits and other CVO regulatory processes.

Tool: *State Maintained Internet Site that Posts Motor Carrier Rules and Regulations*

Type: Educational

Objective: Provide a quick source of motor carrier rules and regulations.

Description: Internet sites (Web pages) are sources of information provided via computerized access. They allow for instant access to information and provide an excellent method to disseminate up-to-date information.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: As noted above, the Internet can provide an excellent method for disseminating information.

If an agency chose not to develop a large, comprehensive Web site, it could concentrate on providing details of motor carrier rules and regulations. In this case, the information could include:

- CVO Statutes and rules
- Operating authority details
- CDL information (process and regulations)
- Vehicle size and weight regulations
- Points of contact for CVO enforcement and regulation
- Hazardous Materials and environmental information

In a survey of state motor carrier agencies approximately half of the responding agencies indicated that they have a Web site for this purpose. They considered the sites to be moderately successful.¹

Tool: *Motor Carrier Safety-related Publications Produced and Distributed by State CVO Agencies*

Type: Educational

Objective: To provide relevant, up-to-date information to motor carriers.

Description: Publications provided to motor carriers by state agencies usually provide an overview of motor carrier safety regulation and possibly a discussion of applicable Federal regulations.

A much wider range of safety-related information could prove very useful to motor carriers. This information can be provided via a wide range of publications ranging from “trucking handbooks” through brochures, manuals, pamphlets, newsletters, bulletins, videos, etc.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: Some of the media for providing information to motor carriers include:

- Handbooks and manuals providing general and detailed information on a wide variety of topics.
- Special Purpose Publications targeting specific topics, issues or audiences.
- Pamphlets/Brochures/Booklets focused on single issues and provide quick references. They are not usually very detailed.
- Newsletters publicizing items such as regulatory updates, information on critical issues, and listing of upcoming events and programs of interest to motor carriers.
- Videos demonstrating procedures or activities. For example, an agency might produce a video showing the roadside inspection process demonstrating how the inspection is performed and showing examples of the various types of violations.

Whatever media is used it is important that it incorporate the following features:

- It should be relevant and easy to understand.
- The information provided should be accurate and up-to-date.
- It should have an effective design that is well-organized and presented.

Tool: *Site Visits by State Agencies to Assist Motor Carriers in Developing and Enhancing Safety Programs*

Type: Educational

Objective: To assist motor carriers develop and improve their safety programs.

Description: This program involves visits by representatives of state CVO agencies to motor carriers to review the carriers' in-place safety programs and to offer suggestions for improving them. These visits would not be for enforcement activities.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: Many times motor carriers have safety programs in place but, for some reason the program is not entirely adequate. This is very often true for new carriers and those whose primary business is not trucking (e.g., lumber yards, furniture stores, etc.). Other times, a carrier may exhibit a high number of safety violations and, rather than place heavy sanctions on the carrier, the enforcement agencies wishes to assist the carrier in improving its safety program.

During an assistance visit, CVO officials would review what safety programs the carrier has in place and point out those areas where the programs are doing well and also those areas where some improvement is required. The officials would work with the carrier to put in place a process and timetable to make the necessary improvements.

Those state agencies that conduct assistance visits report that they are very effective in enhancing motor carrier safety.¹

Tool: *Periodic Meetings Between State Safety Oversight and Enforcement Agencies and Motor Carrier Representatives to Discuss Key Issues*

Type: Problem Solving Partnership

Objective: To jointly discuss important motor carrier safety issues and reach consensus on how best to address the issues.

Description: State trucking associations play a key role in improving motor carrier safety. Cooperation with these organizations can provide useful input into the development of safety programs.

Participants: Lead Organization: State CVO Agencies
Partners: Motor Carriers

Discussion: State trucking associations are already extremely active in promoting highway safety to the trucking industry. They are also actively work with state CVO agencies in various regulatory and safety programs.

Advisory boards and similar groups have proven extremely very useful in establishing and maintaining dialogue between CVO agencies and the motor carrier industry on many regulatory, administrative, and safety issues.²

For example, Colorado has a Motor Carrier Advisory Committee with representatives from government and industry that meets at least four times a year to discuss and provide guidance on CVO safety and regulatory issues in the state. Iowa also has a similar advisory group that meets at least semi-annually to discuss current CVO issues and proposed regulatory and legislative changes.²

However, a state chooses to organize these types of meetings, it is critical that all participants are afforded equal stature within the group and every effort is made to achieve a consensus.

Almost all of the state CVO agencies responding to a recent survey indicated that they hold regular periodic meeting with industry representatives. The responding agencies rated these contacts as extremely effective in promoting safety in their states.¹

Tool: *Inclusion of Motor Carrier Representatives in CVO Planning Activities*

Type: Problem Solving Partnership

Objective: To actively involve the motor carrier industry in all aspects of CVO planning initiatives.

Description: State trucking associations play a key role in improving motor carrier safety. Cooperation with these organizations can provide useful input into the development of safety programs.

Participants: Lead Organization: State CVO Agencies
Partners: Motor Carriers

Discussion: State trucking associations are already extremely active in promoting highway safety to the trucking industry. They are also actively working with state CVO agencies in various regulatory and safety programs. These associations and other trucking stakeholder groups can provide valuable input to strategic plans, business plans, and other planning activities.

To enhance the success of planning activities it is important that all of the stakeholders work closely together as equal partners on all aspects of the plan. Additionally, there are four important concepts to keep in mind during these activities:

- Be inclusive—Include as many stakeholders as possible in the process from the very beginning. Furthermore, this representation should include individuals who will be involved in program and project implementation (the state agencies) and that will see their activities directly affected by the implemented plans (the motor carriers).
- All stakeholders should be equal—Consensus is the key to successful planning. The process should allow all stakeholder groups to actively participate in all of the planning activities.
- Make sure there is constant feedback—It is critical to include feedback during all portions of the planning process. This feedback should be continuous and two-way. Not only should the participants be kept informed about what is going on, but they should be provided a wide range of opportunities to contribute to the planning process.
- Start the planning process with outreach efforts and allocate the necessary resources. Many plans have considered outreach as a simple public information effort. Recent legislation and evidence from other planning efforts indicate that plan development should integrate public involvement into the plan development.

Tool: *Cooperation with the Motor Carrier Industry in
Safety Education Activities*

Type: Problem Solving Partnership

Objective: To work cooperatively to promote motor carrier safety activities.

Description: State trucking associations play a key role in improving motor carrier safety. Cooperation with these organizations can provide both useful input into the development of safety programs as well as additional distribution outlets for disseminating safety materials.

Participants: Lead Organization: CVO Enforcement Agencies

Partners: Motor Carriers

Discussion: State trucking associations are already extremely active in promoting highway safety to the trucking industry and they also work with state CVO agencies in various regulatory and safety programs. These organizations also have the infrastructure in place to solicit input from their members on educational needs and to promote and distribute educational materials. Furthermore, involving industry representatives from the very beginning in the development and promotion of educational programs can foster a positive atmosphere between the industry and enforcement agencies.

The level of involvement can vary from program to program. For example, a state agency may develop a set of safety materials and request industry representatives to review the materials and provide feedback on usefulness and suggestions for improving the materials. Alternatively, a state may develop a CVO safety program where industry representatives are included on the development steering committee at the very beginning and are actively and equally involved throughout the entire process. A third alternative could be the solicitation of motor carrier input during the developing of a safety program via surveys and focus groups.

Surveyed CVO enforcement personnel have indicated that involvement of the motor carrier industry in these activities is an extremely important and effective method of improve CVO safety.¹

REFERENCES

1. M. L. Patten. *Survey of State Motor Carrier Safety Activities*. The Pennsylvania State University, University Park, PA: 2000.
2. Upper Great Plains Transportation Institute. *Educational and Technical Assistance to CMV Drivers and Motor Carriers*. Fargo, ND: 1998.