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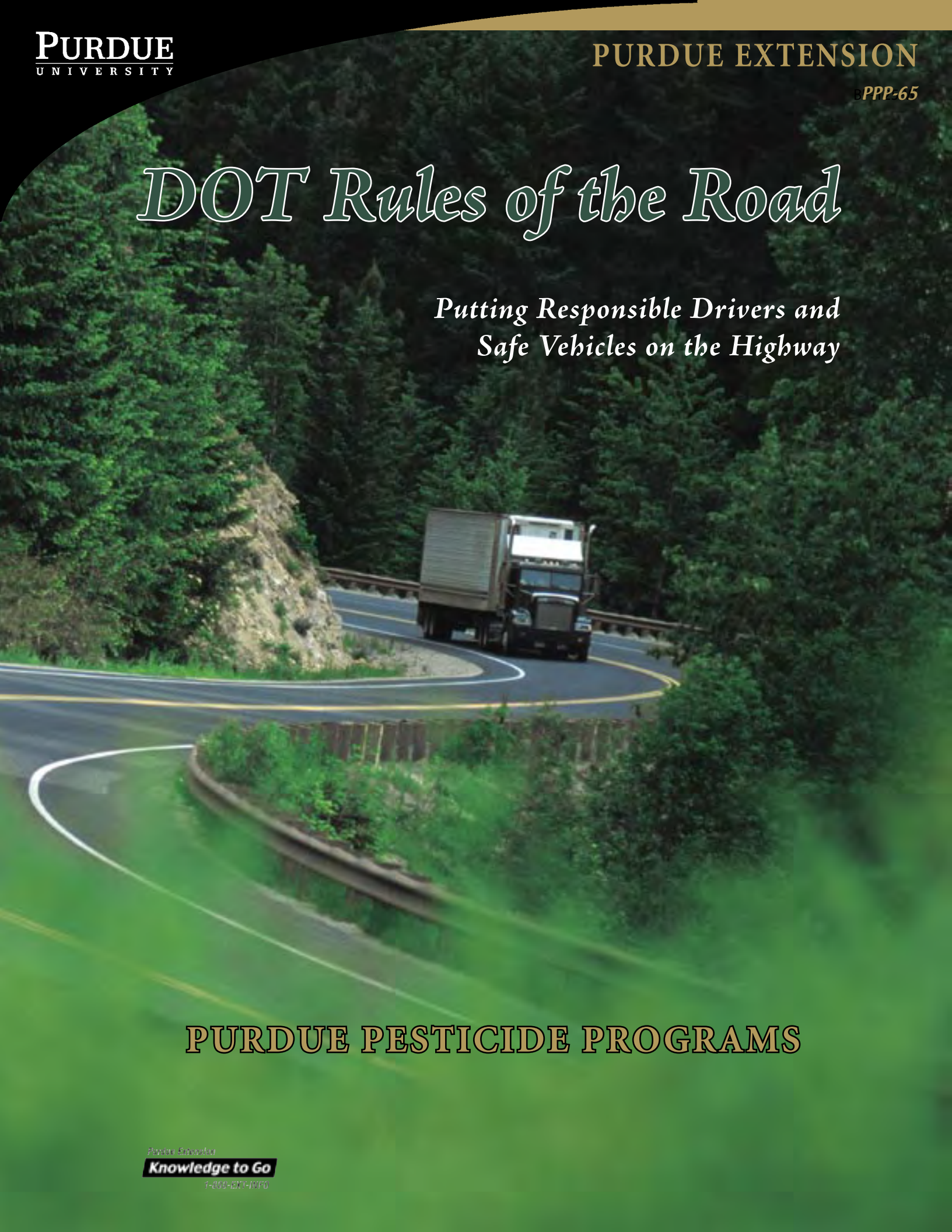
PPP-65

DOT Rules of the Road

Putting Responsible Drivers and Safe Vehicles on the Highway



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Department of Transportation

Rules of the Road

Putting Responsible Drivers and Safe Vehicles on the Highway

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Introduction

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Introduction

In the middle of a busy pesticide application season, Ed went to his supervisor and reported that his company truck had bad brakes. He explained that the brakes had failed repeatedly and that on one occasion he had barely avoided an accident when he was unable to stop the truck at a red light. The supervisor, under the gun to stay on schedule, said he would have the truck repaired “when there is time.” The brakes went unfixed.

A few days later, Ed was driving the truck and the brakes failed as he approached a red light. He tried pumping them. He geared down. He applied the emergency brake. He made every effort to stop the truck, but failed.
A car was approaching a green light from another direction, but there was nothing Ed could do. His truck crashed into the car at the driver’s door, shoving it through the intersection and into the path of oncoming traffic where it was struck head-on by a third vehicle. A young woman and her four-year-old daughter died at the scene.

Ed immediately reported the accident to his dispatcher, and the company promptly sent a representative to the scene as the police began the arduous task of investigating the accident. They examined Ed's paperwork from the truck and, with his company representative present, began to interview him. Ed's logbook and his daily vehicle inspection reports provided evidence that he had been reporting unsafe brakes on the vehicle for two weeks. There was no mechanic's signature to indicate that the brakes had been repaired, yet Ed had continued to sign his daily pre-trip inspection reports and drive the vehicle. During the interview Ed stated that he had approached his supervisor about the issue and had been told that things were just too busy to take the truck out of service for repairs. But the police claimed that, technically, Ed made a conscious choice to continue driving the truck "carefully" until repairs could be made.

The task for investigating officers at the scene was to reconstruct the accident and determine which driver caused it, and that was perfectly clear: Ed did. But ultimately the court would decide who was responsible for the truck being on the road that fateful day; that is, who should be held liable for the deaths of two innocent people.

Could the accident have been avoided? Should the truck have been taken off the road pending brake repairs? Was the truck being driven in accordance with U.S. Department of Transportation (USDOT) regulations and applicable state laws?

Ed's supervisor allowed the truck to be driven with bad brakes, but Ed knowingly drove an unsafe vehicle in direct violation of Federal Motor Carrier Safety Administration (FMCSA) regulations. He had been given a copy of the regulations and had received compliance training conducted by his employer, and still he drove the truck.

Ed and the company were determined equally at fault, and they became embroiled in a series of lawsuits, regulatory hearings, and negative press:

- The district attorney filed criminal charges against Ed and the company.
- The family of the deceased also filed civil lawsuits against Ed and the company.

- The company's insurance carrier refused to pay claims resulting from the accident because the company knowingly allowed an unsafe vehicle to be driven.

- State and federal regulatory agencies conducted a series of civil and regulatory hearings, citing Ed and the company for gross DOT violations.

- Every detail was addressed on radio and television broadcasts and in local newspapers.

The financial viability of the company was placed in jeopardy, and it would take years for the company to address the charges. Hundreds of thousands of dollars would be spent to settle the claims. In retrospect, everybody agrees that taking the truck off the road for repairs would have spared the company, the owner, and the driver thousands of dollars in legal fees. More importantly, it would have spared the lives of a young mother and her little girl—something Ed and his supervisor will live with for the rest of their lives.

Ed or his supervisor could have prevented all of this. If Ed had exercised his training and refused to drive the truck, or if his supervisor had authorized immediate repairs, two lives would have been saved.

Both Ed and his supervisor had been trained on FMCSA regulations, but obviously the company was negligent in enforcing them. The regulations not only prescribe actions required of drivers, they also outline maintenance programs that must be implemented to comply with the regulations. All companies and carriers regulated by USDOT are bound by FMCSA regulations. Period. And compliance is a small price to pay for saving lives, avoiding

financial hardship, and compromising your company's reputation—as well as your own.

A Reason for the Rules

Vehicular accidents involving personal injury or hazardous material releases represent the greatest liability that companies face every day. Drivers of commercial vehicles need to be trained, certainly, but they also need to be conscientious; and it is equally important that all equipment and vehicles be in good working condition.

The mere volume of commercial traffic on our roads and highways necessitates regulation at the federal, state, and local levels. Various regulations address public safety issues by requiring that vehicles be operated according to manufacturers' design limitations and within the confines of safe operation and maintenance. One of our goals in writing this publication is to make the regulations easier to understand, and we will guide you through them as you read. You will learn how to bring your drivers and your fleet vehicles into compliance with state and federal transportation regulations—and keep them there. Our primary goal, however, is to promote the safe transportation of goods and services. Our suggestions will help you safeguard your drivers, protect the public and the environment, and reduce liabilities. But remember above all else that *implementation is the key.*

Regulatory Structure of Transportation

Federal and state police investigators may conduct compliance audits at your place of business to augment roadside inspections. They may examine your management procedures, policies, and practices pertaining to driver qualification, equipment maintenance schedules, and ongoing compliance with USDOT regulations.

Federal Transportation Authority

The U.S. Department of Transportation is delegated by Congress to regulate vehicles, drivers, and cargo on the nation's highways.

Research and Special Programs Administration

The USDOT Research and Special Programs Administration is primarily responsible for developing regulations and enforcement strategies pertaining to the movement of hazardous materials by road, rail, air, and water.

Federal Motor Carrier Safety Administration

The USDOT Federal Motor Carrier Safety Administration is responsible for developing and enforcing driver qualification, vehicle maintenance, and safety regulations specific to highway transportation.

National Transportation Safety Board

The National Transportation Safety Board is responsible for investigating the more serious accidents that occur on highways, railways, and airways.

U.S. Department of Transportation State Office

The USDOT has an office in Indianapolis that employs federal inspectors whose primary responsibility is to conduct carrier compliance audits.

State Authority

The authority to regulate vehicles, drivers, and cargo transported on Indiana highways (Indiana Code 8-2.1-24-18) involves multiple state agencies. Each agency is assigned a unique portion of the transportation industry: safety, registration, or permits.

Indiana State Police
Commercial Vehicle Enforcement Division

In Indiana, the enforcement agency is the Indiana State Police Commercial Vehicle Enforcement Division. Specially trained Indiana State Police enforcement personnel conduct roadside inspections intended to reduce

the number of—or prevent—motor vehicle violations and accidents, including transportation-related chemical releases. There are three Indiana State Police entities that focus on transportation safety:

- Motor Carrier Inspectors conduct most commercial vehicle enforcement actions. They administer roadside inspections and weigh vehicles at portable and permanent scale locations along Indiana highways; they also conduct dyed fuel inspections and most school bus inspections.

- The second group consists of state troopers trained to conduct roadside motor carrier safety and hazardous materials (HAZMAT) inspections in addition to their other law enforcement duties.

- Along with their federal counterparts, other specially trained state troopers focus primarily on carrier compliance audits, post-crash investigations, and complaints against carriers.

Indiana Bureau of Motor Vehicles

The Indiana Bureau of Motor Vehicles is responsible for issuing license plates, vehicle registrations and titles, and driver licenses.

Indiana Department of Revenue
Office of Motor Carrier Services

The Indiana Department of Revenue Office of Motor Carrier Services has the authority to collect fuel tax and license plate fees for Indiana and other states, to issue oversize and overweight permits, and to approve the issuance of commercial driver licenses and renewals based on updated medical evaluations.

Roadside DOT Inspections

Some of the reasons a state trooper or motor carrier inspector might stop a commercial vehicle include the following:

- Random pull-over
- Traffic violation
- Identification of carrier as one with a history of poor performance
- Unsafe appearance of the vehicle (lights out, cargo unsecured, chains dragging, etc.)
- Routine weight check
- Vehicle placarded for hazardous materials

Levels of Roadside Inspections

The Commercial Vehicle Safety Alliance (CVSA) is an independent (non-governmental) organization that develops standards for roadside inspections and load securement. There are five levels of roadside inspections that pesticide application companies may face:

Level 1: Full inspection of the driver's operator license and paperwork, the vehicle, and the cargo. It may take a long time if violations are discovered.

Level 2: Review of driver's paperwork. The inspector also must conduct a detailed walk-around inspection of the vehicle.

The Commercial Motor Vehicle

Level 3: Review of the driver's operator license, paperwork, logbook, medical card, and vehicle inspection report.

Level 4: Specific inspection of commercial driver license endorsements, logbook entries, and/or equipment operations as part of a federal study.

Level 5: A vehicle-only inspection conducted at the carrier's terminal. The Level 5 inspection is similar to a Level 1 inspection except that it does not include a review of the driver's paperwork and qualifications.

State troopers or motor carrier inspectors generally have the driver pull off the road to a location where the stopped vehicle will not pose a safety threat to other motorists, the driver, or themselves. They usually have the driver

open the door and remain seated; this allows the inspecting officers to ensure that the driver is wearing a seat belt and to visually scan the passenger compartment for illegal items such as radar detectors and contraband (e.g., alcohol or drugs).

The inspecting officers ask the driver for documentation: driver license, medical examiner's certificate, vehicle and trailer registrations, cab card, fuel tax permit, logbook, manifests or bills of lading (shipping papers), and USDOT hazardous materials certificate of registration (if applicable).

Inspectors conduct a quick visual evaluation of the vehicle, looking for unsafe conditions such as damaged tires. They may point out various areas of concern such as broken springs or other safety-related conditions.

The officers in a Level 1 inspection conduct a thorough review of the vehicle and its cargo. They check tire pressure, tread depth, and lug nuts (to make sure they are tight). They walk systematically around the vehicle, check underneath, and inspect the inside to determine the overall operating condition of the vehicle. They ask the driver to activate brakes, lights, and windshield wipers. Officers also inspect the trailer and cargo to make sure they are compatible and to confirm that applicable cargo securement requirements are met.

Roadside Inspection Results

Drivers or vehicles found in serious violation during a CVSA inspection are placed out of service. A vehicle placed out of service may not be operated until repairs are completed. If the inspection occurs at roadside, inspectors generally escort the vehicle to a truck stop or rest area where it is parked and tagged. The vehicle must remain at that location until the violations are corrected and the inspection document is signed by a mechanic to indicate that all repairs have been completed. Afterwards, the vehicle may be placed back in operation.

Mechanics are required to sign, date, and list their company on the general inspection form upon completion of repairs. You must submit this verification of repairs to the Indiana State Police Commercial Vehicle Enforcement Division within 15 days of the inspection. A follow-up inspection is generally unnecessary.

If only minor repairs are needed, a copy of the inspection form is placed in the vehicle maintenance file, and the driver may drive the vehicle to the next terminal or facility for repairs.

Most state commercial vehicle enforcement programs use CVSA inspection criteria. If the driver, vehicle, trailer, and cargo pass a Level 1 roadside inspection, the inspector places a CVSA sticker on the vehicle and the trailer.

CVSA stickers are color-coded. Based on the color, the year, and the corner removed, officers can determine when a Level 1 inspection was conducted on a given vehicle. Vehicles displaying current CVSA stickers generally are not re-inspected unless there is an obvious driver violation or a noticeable defect in the vehicle or its cargo.

Carriers that maintain equipment in good condition are rewarded with fewer Level 1 inspections and delays. Motor carrier inspectors and DOT officers from other jurisdictions recognize the coded stickers and know not to stop a recently inspected vehicle without just cause. This allows motor carrier inspectors and DOT officers from other jurisdictions to focus on carriers that have not been inspected.

USDOT Compliance Audit at Your Place of Business

All DOT violations for each motor carrier are entered into a national database under the company's DOT number. Each infraction adds points to your company's DOT record. If your company accumulates a certain number of points, it will be placed into a DOT category; the categories are identified by the letters ***A*** through ***K*** in descending order of severity: ***A*** is the most serious; ***C*** is just serious enough to trigger an on-site review; and ***K*** is the least serious. If an on-site compliance audit is mandated, it will be conducted at your place of business. DOT safety investigators may give you a two- to ten-day advance notice explaining the reasons for the audit and indicating what documents will be examined.

Prior to arriving at your business, auditors will generate a profile of your company from the USDOT database. Drivers and vehicles that contribute to the point total become the initial focus of the review.

Investigators will show you their credentials, verifying that they are federal or state police employees. DOT investigators will work with your corporate officers or the safety director responsible for ensuring that noted violations are addressed.

Investigators will review your operations, the general structure of your company, your vehicle maintenance records, and your vehicle maintenance communication network between management and the drivers.

Investigators may request the following information to aid in the overall ranking process:

- Number of vehicles and drivers in your fleet
- Types of materials you transport
- Total miles traveled each year by your entire fleet
- Copies of post-trip inspection reports (back three months)
- Vehicle and trailer maintenance records
- Shipping papers for HAZMAT shipments (must be kept for 375 days)
- Driver qualification files
- A description of the process used to hire new drivers
- A written copy of the company's drug and alcohol testing program
- Proof of financial responsibility (insurance)

Upon completion of the audit, investigators will conduct an exit interview with you and other responsible company officials to summarize the results, including violations discovered, recommended remedial action, and possible penalties. Your company will be given 15 days to submit a report outlining how and when deficiencies noted in the audit will be corrected. The amount of time required to complete a DOT compliance audit depends on the size of the carrier, the commodities transported, and the violations or deficiencies cited. Companies designated Category ***A, B,*** or ***C*** carriers will be reviewed every 6–12 months for 30 months before being removed from any list.

Do USDOT Regulations Apply to You?

The U.S. Department of Transportation regulates commercial motor vehicles as classified by the manufacturer's Gross Vehicle Weight Rating (GVWR), the type of materials transported, or the manufactured design limits for the number of passengers transported. (see p. 19)

A commercial motor vehicle is defined in FMCSA regulations as "any self-propelled or towed vehicle used on public highways to transport passengers or property in commerce" within the following weight, passenger, and cargo parameters:

- Weight: when the vehicle has a manufacturer's GVWR or a gross weight over 10,000 pounds; or when the Combined Gross Combination Weight Rating (CGCWR) or the gross weight of the power unit plus the trailer and its load is more than 10,000 pounds.

- Passengers: when the vehicle is designed to transport more than 16 passengers (including the driver) for non-business movement, or eight or more passengers (including the driver) when transporting for-hire.

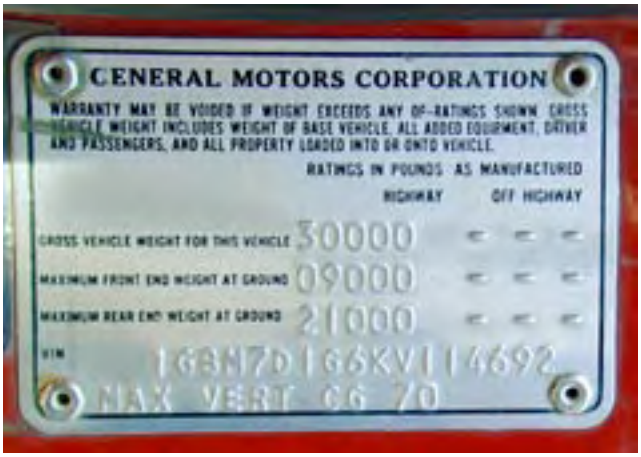
- Cargo: when a vehicle transports hazardous materials in quantities requiring the display of placards. Although the potential level of danger increases with the weight of the vehicle, the risk to people and the environment also increases if hazardous materials are transported.

Indiana's Adoption of Federal DOT Regulations

Indiana adopted the FMCSA regulations and the HAZMAT regulations (Indiana Code 8-2.1-24-18), making the federal law a part of state law. Intrastate carriers (those that transport only within Indiana) are subject to the same requirements as carriers involved in interstate transportation (those that transport across state lines).

Gross Vehicle Weight Rating

The manufacturer's GVWR is stamped on a tag called a Vehicle Identification Number (VIN) plate found most frequently on the doorjamb or on the inside panel on the driver side door. In some vehicles, the tag is located behind the driver on a panel mounted to the cab. The GVWR represents the maximum loaded weight of the vehicle as certified by the manufacturer; i.e., the maximum weight, including the vehicle itself, that the power unit or trailer can safely carry. The GVWR takes into consideration the suspension, tires, frame, and overall manufactured design strength of the vehicle.



Trailers pulled behind vehicles also have a GVWR; it is usually stamped on a VIN plate near the tongue. A truck and trailer unit with a *combined* GVWR *over* 10,000 pounds is defined as a commercial motor vehicle. Therefore,

- a single power unit that has a GVWR of 7000 pounds *is not* regulated.
- a single power unit that has a GVWR of 15,000 pounds *is* regulated.
- a power unit that has a GVWR of 7000 pounds, pulling a trailer with a GVWR of 5000 pounds, *is* regulated.
- a power unit with a GVWR of 7000 pounds, pulling a trailer with a GVWR of 3000 pounds, *is not* regulated (because it is not *over* 10,000 lb).

Placards for Hazardous Materials

The cargo that a vehicle transports may pose danger independent of its weight. Note: Any vehicle—large or small, truck or car—that transports hazardous materials in quantities requiring a placard is regulated as a commercial motor vehicle.

The diamond-on-point placard (right) is a warning sign specific to the hazard potential of the material being transported. It signals emergency responders and vehicle inspectors that hazardous materials are on board.

Transporting People

Any vehicle designed to transport more than 16 people (including the driver) is regulated by DOT, even in a not-for-hire situation. For example, a school bus used to transport 17 or more farm workers is regulated by DOT even though the passengers are not paying the driver to transport them.

Government Entities

As a general rule, government entities are exempt from FMCSA and HAZMAT regulations. However, they are subject to limited regulation when transporting 16 or more persons (including the driver) and when operating a motor vehicle with a GVWR or CGVWR greater than 26,000 pounds. Government personnel must have commercial driver licenses and are subject to alcohol and controlled substance testing under these conditions.

Farm Operations

Growers who transport the products they grow are exempt from some—but not all—DOT regulations. For more information, see PPP-68, *Carrying Farm Products and Supplies on Public Roads.*

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Driver

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Putting Responsible Drivers on the Highway

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Driver

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Putting Responsible Drivers on the Highway

Documenting Driver Qualifications

The responsibilities of driving a commercial motor vehicle make it imperative to check the driving record of all prospective drivers before you offer them a job, and it is equally important to periodically check the records of your current drivers. The DOT has specific requirements for hiring new drivers, among them a background check and a DOT physical if the individual has not had one within two years.

DOT Regulations

for commercial motor vehicle drivers

Employment Criteria

You must verify that all drivers or prospective drivers are

- at least 18 years old if you engage only in intrastate commerce (within the state);
- at least 21 years old if you engage in interstate commerce (across state lines);
- physically and psychologically fit (able to pass a DOT physical);
- capable of reading and speaking English well enough to understand highway signals, respond to officials, and make entries in a logbook; and
- properly licensed in the appropriate classification: operator; chauffeur; or Class A, B, or C Commercial Driver License (CDL).

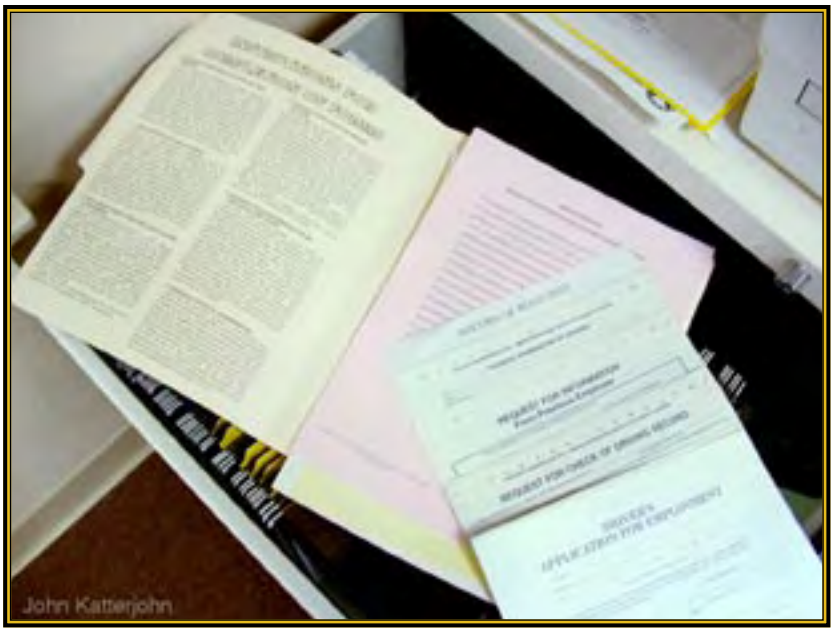
Ask prospective drivers to

- document prior training and/or commercial motor vehicle driving experience;
- provide written permission for you to access their Bureau of Motor Vehicles records to check for traffic violations and license suspension or revocation history;
- give you permission to contact previous employers and state licensing agencies to verify that they have never been disqualified to drive a commercial motor vehicle, that they have never refused a drug test, and that they have never tested positive nor had a diluted urine sample rejected in a pre-employment, random, post-accident, or reasonable-suspicion drug test.

Pre-Employment Screening

Have all prospective drivers complete an employment application prior to hiring them to drive a commercial motor vehicle. The information on the job application form must include at least the following information.

- The applicant's name, address, date of birth, and social security number
- The applicant's home address(es) for the past three years
- The names and addresses of the applicant's current and former employers as well as employment dates for the previous three years (10 years for applicants who expect to operate vehicles requiring a CDL)



- The reasons why the applicant left previous position(s)
- The license number, state of issue, and expiration date of the applicant's current commercial motor vehicle operator license, CDL, or permit
- A statement of the applicant's prior experience operating commercial motor vehicles
- A list of motor vehicle accidents involving the applicant (back three years), including the date and nature of each accident and any personal injuries or deaths involved
- A detailed statement pertinent to previous denial, revocation, or suspension of a license or permit—or a statement indicating that the driver has never had a license or permit denied, revoked, or suspended

This certification and signature line must appear at the end of the employment application form, and the form must be signed and dated by the applicant.

This certifies that I have personally completed this application and that all entries and information stated herein are true and complete to the best of my knowledge.

Applicant's signature Day/Month/Year

Previous Employer Background Checks

DOT regulations require you to contact applicants' previous employers to inquire whether anything might impede their safe operation of a commercial motor vehicle. Background checks must occur within the first 30 calendar days of employment and may be conducted in person or by telephone interview, certified letter, fax, or e-mail. Take detailed notes and document all correspondence in the drivers' DOT qualification files.

You have the right to ask previous employers about a driver's work history. Previous employers must divulge any refusals, diluted samples, positive results of alcohol and drug tests, and follow-up actions taken. If they elect not to provide such alcohol and controlled substance information, they may be subject to DOT enforcement actions. It is important to record the date, the company, and the individual who refused to provide such information, then place it in the driver's qualification file. Be wary of drivers who refuse to give you permission to check with previous employers.

These are examples of questions that should be asked of previous employers:

- Has the driver refused a drug test within the last three years?
- Has the driver ever tested positive for drugs or alcohol?
- Has the driver ever been admitted to a rehabilitation center for drug or alcohol abuse?
- Has the driver ever been ticketed in connection with an accident?
- Has the driver always complied with DOT regulations and company policies?

Checking the Driving Record

As previously mentioned, DOT regulations require employers to review prospective drivers' records dating back three years; and the investigation must be conducted within 30 days of the date a driver is hired. You must permanently retain all findings from these records in the employee's driver qualification file.

Physical Qualifications

DOT regulations require that a physician or licensed medical examiner determine that all drivers are physically and mentally fit to operate a commercial motor vehicle. Each driver's medical history and current medical condition are evaluated. Those subject to examination are

- new drivers who have never undergone a physical examination for clearance to drive a commercial motor vehicle;
- drivers who have not had a DOT physical examination for 24 months (or more recently as required by previous examinations) to confirm their physical capability to drive a commercial motor vehicle; and
- drivers who sustain a physical injury or mental impairment after passing a DOT physical, if the ailment could potentially impact their driving ability.

Physicians who conduct DOT physicals are required to follow specific guidelines as outlined in FMCSA regulations to ensure that all commercial motor vehicle drivers are subject to the same physical evaluation process.

Drivers are required by DOT regulations to carry documentation (a medical examiner's certificate or a copy of the actual form completed by the examiner during the physical) that they passed their most current medical exam. Exams are valid for up to two years; however, the examiner may stipulate more frequent examinations (according to DOT guidelines) where there is just cause.

Physical Examination

Drivers' complete *physical forms should be kept in their personnel files;* but *copies of their medical cards must be kept in their driver qualification files.* For Indiana CDL holders, the original long form must be forwarded or faxed immediately upon completion to the CDL Medical Review Section of the Indiana Department of Revenue. Medical review personnel then audit the long form for compliance and contact drivers at the address presented on their driver license if it is incomplete.

A notice will be sent to the drivers at the address on their driver license 30 days before the expiration date of their most recent DOT physical. The drivers' commercial driving privileges will be suspended if a new physical is not satisfactorily completed and documented: the long form must be forwarded to the CDL Medical Review Section within 30 days.

Commercial Driver License: Who Drives What Vehicle?

The CDL is a professional license required of drivers who operate commercial motor vehicles as defined by 49 CFR Part 382.105. Under CDL regulations, the type of driver license required is based on

- vehicle classification and certain endorsements that identify a specific type of equipment drivers may operate, and
- whether or not drivers transport passengers and/or hazardous materials in a quantity or class that requires placarding.

There are three classes of CDLs: **A, B** and **C.**

Class A: If the manufacturer's GVWR for the trailer being towed is over 10,000 pounds *and* the manufacturer's weight rating of the combination (power unit and trailer) is more than 26,000 pounds, drivers are required to have a **Class A** CDL and applicable endorsements for hazardous materials, tankers, passengers, or double or triple trailers.

Class B: If the GVWR of the single vehicle is over 26,000 pounds (this includes all buses), drivers are required to have a **Class B** CDL and applicable endorsements. **Class B** license holders may not tow trailers with a GVWR over 10,000 pounds.

Class C: If the vehicle is designed to carry 16 or more passengers including the driver, or if the vehicle is a public school bus with a GVWR of 26,000 pounds or less, or if the vehicle's GVWR is 26,000 pounds or less and it carries hazardous materials in quantities that require placarding, drivers are required to have a **Class C** CDL and appropriate endorsements. If the vehicle does not meet any of the above conditions, drivers are not required to have a CDL.

A person who has a Class A CDL may drive vehicles in any class: A, B, or C.

A person with a Class B CDL may drive Class B and Class C vehicles only.

A driver with a Class C CDL may drive Class C vehicles only.

Drivers with CDLs also must have the proper endorsements for the equipment or cargo being transported. Use the following guidelines to determine the type of CDL and endorsements you and your drivers need:

- If the vehicle (towing unit) has a GVWR of 18,000 pounds and tows a trailer with a GVWR of 8,000 pounds, no CDL is required unless you are hauling hazardous materials in quantities that require placarding, in which case a **Class C** CDL with a HAZMAT endorsement is required.

- If the vehicle has a GVWR of 26,000 pounds and is towing a trailer with a GVWR of 10,000 pounds, no CDL is required unless you are hauling hazardous materials in quantities that require placarding, in which case a **Class C** CDL with a HAZMAT endorsement is required.

- If the vehicle has a GVWR of 28,000 pounds and is towing a trailer with a GVWR of 7,500 pounds, a **Class B** CDL is needed along with required endorsements.

- If the vehicle has a GVWR of 28,000 pounds and is towing a trailer with a GVWR of 12,000 pounds, a **Class A** CDL with appropriate endorsements is required.

- If the vehicle has a GVWR of 4500 pounds and is placarded for hazardous materials, a **Class C** CDL with a HAZMAT endorsement is required.

Obtaining A CDL

Drivers who need a CDL must past a written test and driving test as well as tests for applicable endorsements. If the CDL is for farm-related retail operations, see “Restricted Agricultural CDL” on page 37.

The Written Test

Drivers who want a CDL for any class must pass a written test administered by their resident state’s bureau of motor vehicles (e.g., the Indiana Bureau of Motor Vehicles) or through an approved CDL testing facility. All prospective CDL drivers must pass a general knowledge test specific to the class of CDL desired: A, B, or C. Endorsement exams specific to the types of cargo the driver expects to transport must be passed as well. Restrictions based on braking systems may also apply; they are addressed later in this document (see p. 37).

The Driving Test

After passing the written general knowledge and applicable endorsement exams, prospective CDL drivers must pass a driving (skills) test; drivers are required to road test a vehicle in the class in which they need to be licensed. Potential CDL drivers have 180 days after passing the CDL endorsement tests to take the driving test at an authorized testing facility. Drivers may use a company vehicle, their own vehicle, or a vehicle provided by the testing facility.

Potential drivers must pass all of these exam elements:

- Pre-trip inspection
- Coupling and uncoupling combination units (if applicable)
- Use of vehicle controls and emergency equipment
- Operating the vehicle in traffic
- Slowing the vehicle by means other than using the brakes
- Backing and parking

Endorsements on the CDL

CDL endorsements ***T, N,*** or ***H,*** etc., are required for drivers of specific types of vehicles with specific handling characteristics, or for hauling cargo that requires special handling.

- ***H:*** the HAZMAT Endorsement is required for drivers of vehicles that carry hazardous materials subject to placarding. This is the only endorsement for which re-examination is required every time the base license comes up for renewal.

- ***N:*** The Tank Vehicle Endorsement is required for drivers of vehicles that carry liquids or liquid gases in portable or fixed tanks with individual capacities over 1,000 gallons. Drivers must be skilled to react to the surge of liquids created by slowing or stopping.
- The ***P1*** Endorsement authorizes drivers to operate all passenger vehicles designed to carry 16 or more passengers, including the driver.
- The ***P2*** Endorsement authorizes drivers to operate vehicles that
  - have a GVWR of 26,000 pounds or less and
  - are designed to carry 16 or more passengers including the driver.
- ***T:*** The (double or triple) Trailer Endorsement is for drivers of vehicles with handling characteristics (such as backing) that are different than those of other trailers.
- The ***X*** endorsement (right) combines the Tank Vehicle (N) and Hazardous Material (H) endorsements.

The Transportation Security Administration requires commercial drivers with HAZMAT endorsements to undergo checks that include reviews of criminal, immigration, and FBI records, including fingerprints. Applicants with either a military or civilian conviction for certain violent felonies over the preceding seven years are ineligible to obtain or renew a HAZMAT endorsement.

The Federal Motor Carrier Safety Administration prevents states from issuing, renewing, transferring, or upgrading a CDL that carries a HAZMAT endorsement, without the Transportation Security Administration first conducting a background check on the driver. Background checks must be conducted every five years as part of the HAZMAT renewal cycle. New drivers who need HAZMAT endorsements are fingerprinted and felony background checks conducted. Drivers who already hold HAZMAT endorsements will at some point have to be fingerprinted and undergo background checks. Drivers who do not pass the background check may still hold a CDL—but without the HAZMAT endorsement.

Restrictions on the CDL

The air brake test is not an endorsement: it is a restriction *(L)* on the CDL. The *L* restriction is placed on the CDL if an air brake test is not taken or if the driving test is passed using a vehicle without air brakes. Lastly, a written air brake test is not required for drivers of all types of commercial motor vehicles with air brakes; only drivers of classified CDL vehicles with air brakes are required to pass a written brake test.

Restricted Agricultural CDL

Indiana and many other states issue Restricted Agricultural Commercial Driver Licenses (AgCDLs) requiring drivers to pass an examination to drive a Class B vehicle for farm-related retail operations, subject to certain restrictions:

- The AgCDL may be issued only to custom harvesters, farm retailers and suppliers, agrichemical business personnel, and livestock feeders—not to farmers.

- Drivers must be at least 18 years old and hold a valid driver license with no recorded violations.

- The license cannot be used for interstate commerce.

- Drivers are not allowed to drive the commercial motor vehicle for more than 180 days in any 12-month period.

- Applicants must submit a completed DOT/CDL medical form with the AgCDL application.

- AgCDL drivers may not operate Class A vehicles.

- Drivers may operate a commercial motor vehicle only within a 150-mile radius of their place of business.

- AgCDL drivers may not transport placarded amounts of hazardous materials other than liquid fertilizers (e.g., anhydrous ammonia) in total quantities of 3000 gallons or less. They may haul diesel fuel in tanks that hold 1000 gallons or less.

Hiring a Driver with a CDL

If you hire an employee who already has a valid CDL, the driving and written tests may be waived if you place a copy of their valid CDLs in the driver's qualification file—or you may specify that the driver is to retest. A substitute for the skills and driver test is a copy of a valid certificate of the driver's road test issued within the past 3 years. Copies of these items must be kept in the employee's driver qualification file.

Indiana Chauffeur License

In Indiana, a person whose primary job is to drive a commercial motor vehicle with a declared gross weight of 16,001–26,000 pounds must have a chauffeur license; that is, the driver must pass a written test, pass a DOT physical examination, and acquire a medical examiner's certificate. The driver must carry the medical certificate as well as the chauffeur license when driving the vehicle.

Note that a vehicle's "declared gross weight" is different from the Gross Vehicle Weight Rating. The declared gross weight as stated on the vehicle registration determines the type of license plate and driver license required. Drivers who transport placarded hazardous chemicals in or on a vehicle with a declared gross weight of 16,001 to 26,000 pounds must carry the appropriate CDL with a HAZMAT endorsement.

Driver's Annual List of Moving Violations

DOT regulations require that all drivers prepare a new document every 12 months listing all violations (excluding parking) for which they have been cited. Employees are required to list all traffic violations regardless of the vehicle being driven when charged, whether they were driving a personal or commercial motor vehicle, or whether they were charged during working hours. By law, if your drivers are charged with a traffic violation such as speeding or running a red light, they have 30 days to notify you.

Driver's Certification with Reportable Offenses

This statement (top right, p. 40) meets DOT requirements for reporting offenses. Have your drivers update their information annually and keep it in their qualification files.

Driver's Certification without Reportable Offenses

If drivers have no reportable offenses, have them sign statements (see below) annually and keep them in their qualification files.

As the employer you must check the accuracy of records provided by your drivers, and you must file drivers' motor vehicle record checks in their driver qualification files. Ask drivers to sign a document allowing you to access their records from the Indiana Bureau of Motor Vehicles, and do so annually. (This also applies to prospective drivers from other states; request each driver's records from the states in which they are licensed.)

I certify that the following is a true and complete list of traffic violations (other than parking citations) for which I have been convicted or for which I have forfeited bond or collateral during the past 12 months.

- *Date of conviction*
- *Offense*
- *Location*
- *Type of motor vehicle operated*
- *Date of certification*
- *Driver's signature*
- *Motor carrier's name*

I certify that I have not been convicted of, nor forfeited bond or collateral due to, any reportable violation during the past 12 months.

- *Date of certification*
- *Driver's signature*
- *Motor carrier's name*
- *Motor carrier's address*
- *Reviewed by (signature and title)*

Drug Testing

If you employ drivers who are required to hold CDL or AgCDL licenses, you are required by DOT to implement a drug and alcohol testing program. Prospective drivers with CDL or AgCDL licenses must be tested before they are hired; once hired, all employees with CDL or AgCDL licenses are subject to random testing. Testing also may be required under "reasonable suspicion" (if an employer suspects a driver of substance abuse) or "post accident" (if the driver is involved in an accident) situations.

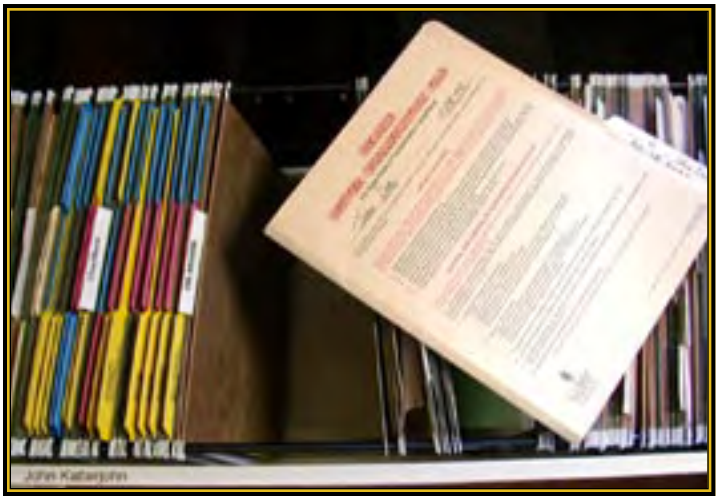
If a driver has a CDL license but does not drive a commercial motor vehicle that requires it, he or she is not subject to the random controlled substance and alcohol testing.

Current DOT regulations mandate that at least 50 percent of a company's CDL drivers be randomly tested (annually) for controlled substances, and at least 10 percent must be tested for alcohol.

Some small companies join a "driver pool," which is a consortium of multiple companies managed by a third party administrator. Drivers are randomly selected from the pool, the tests are administered, and the third party arranges consultations with drivers and employers as required by DOT regulations.

Driver Qualification Files

The DOT requires you to maintain driver qualification files for each of your drivers. These files can be kept separately or combined with each driver's personnel file. The driver qualification file must be maintained as long as you employ the driver and for three years thereafter.



The driver qualification file must include the following documents:

- The driver's application for employment
- A written record proving that previous employers were contacted. Any information pertaining to drug and alcohol testing must be kept in a separate file.
- A Certificate of Road Test, or a copy of the driver's CDL or certificate (that you) accepted as the equivalent to a driver's road test
- The results of the annual review of the driver's driving record
- Annual lists of citations for motor vehicle violations, certified by the driver
- The medical examiner's certificate indicating the driver is qualified to drive a commercial motor vehicle

The following records must be kept for a minimum of five years:

- Records of driver alcohol tests indicating an alcohol concentration of 0.02 percent or greater
- Records of drivers who test positive for controlled substances
- Documentation of a driver's refusal to take the required alcohol and/or drug tests
- Records relating to the administration of the drug and alcohol testing program
- Results of evaluations and referrals
- The annual calendar year summary required under 49 CFR Part 382.403

Hours of Service

USDOT limits the number of hours drivers are permitted to drive. Drivers must maintain a logbook while operating a commercial motor vehicle, as defined in 49 CFR Part 390.5 of the FMCSA regulations, documenting the number of hours they are on duty, the number of hours they are actually driving, and the amount of time they are off duty each day.

The 100-Mile Radius Exemption

Your drivers are exempt from the standard logbook rules (previous page) if they

- stay within a 100-mile radius of the normal work reporting location;
- return to their reporting location and go off duty within 12 hours;
- do not exceed 11 hours' driving time daily; and
- have at least ten consecutive hours off duty between any two 12-hour periods on duty.

Even if drivers are exempt from completing a logbook based on the preceding exemptions, you must maintain records for six months, showing

- the time drivers report to duty each day;
- the total hours drivers are on duty each day;
- the time drivers are released from duty each day; and
- the total hours driven for seven consecutive days for drivers used for the first time or intermittently.

There are three classifications for dealing with the number of hours that drivers may be available to drive a commercial motor vehicle:

- Driving Time: Drivers may not drive more than 11 hours following 10 consecutive hours off duty.
- Hours Worked (duty time): Drivers may not drive after their fourteenth hour on duty following 10 consecutive hours off duty.
- Work Week: Carriers operating five to six days a week may not allow drivers to drive commercial motor vehicles after having been on duty for a total of 60 hours in any seven consecutive days. Companies open around the clock may not allow drivers to drive after having been on duty 70 hours in any eight consecutive days. Drivers can restart the 60- or 70-hour count after 34 consecutive hours off duty.

While driving, your drivers must always carry with them a logbook showing their current and previous seven days' duty status. The log and other records of duty (e.g., time cards), must be maintained for six months at your place of business. Some exemptions follow.

Agricultural Operations Exemption

Your drivers are exempt from the basic hours-of-service rules if any of the following criteria are met:

- They are transporting agricultural commodities or farm supplies for farming purposes.
- The transport is limited to a 100-mile radius from the source of the commodities or the distribution point for the farm supplies.
- The transport is conducted during the planting and harvesting seasons.

Driver-Salesperson Exemption

Drivers (of a private carrier) who sell goods and services, who use said goods, and who also deliver the goods by commercial motor vehicle are exempt from the basic hours-of-service rules providing they do not drive more than 40 hours in seven consecutive days.

Reporting Accidents to DOT

Carriers are required to keep records at the primary place of business for three years following an accident involving a commercial motor vehicle. The record must include

- the date of the accident;
- the city, town, and state where the accident occurred;
- the driver's name;

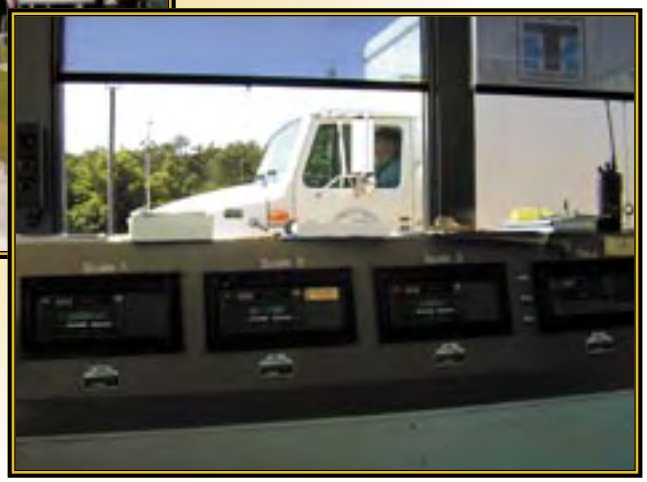
- the number of injuries, if applicable;
- the number of fatalities, if applicable;
- a statement as to whether hazardous materials (other than fuel spilled from the tanks of motor vehicles involved in the accident) were released; and
- copies of all accident reports required by the state or the insurers.

Driving Over Scales

Indiana requires all trucks to enter permanent State Police Commercial Vehicle Enforcement Division scales located along major highways. Motor carrier inspectors focus on the bigger trucks and vehicles used in commercial transport. Vehicles are required to be weighed if they

- have a "tag weight" (declared gross weight) over 11,000 pounds;
- have a GVWR or CGVWR over 10,000 pounds; or
- meet the definition of a commercial motor vehicle.

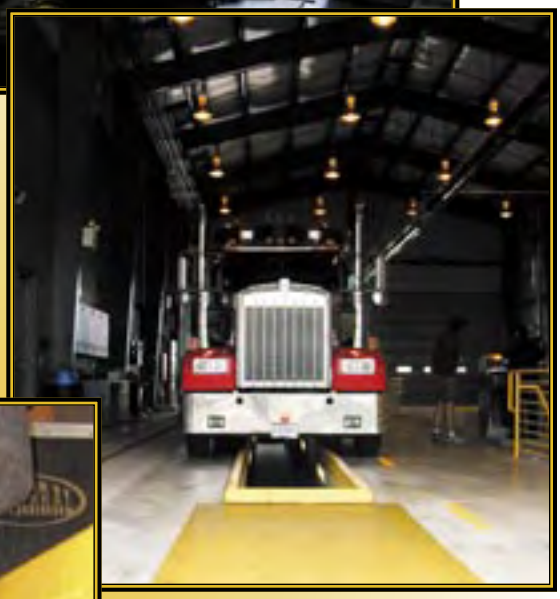
Vehicles pass over scales that measure the total weight and the amount of weight carried over each axle. In Indiana, a commercial vehicle (including the truck, trailer, and cargo) may weigh no more than 80,000 pounds without a special permit. The weight must be distributed evenly across the axles and must not exceed the weight ratings from the axle manufacturer or applicable state regulations.



In addition, tires must conform to the weight borne, so tire ratings also have an impact on the amount of weight a truck is allowed to carry.

As a truck passes over a scale, inspectors check everything from bad tires to seat belt violations. They will ask to see your fuel tax permit, your vehicle and trailer registrations, your CDL, and all log books.

Drivers of overloaded trucks (by weight) or trucks that do not conform to safety compliance standards may have to adjust their loads so that the weight is distributed appropriately over each axle; or they may have to unload some of their cargo onto another vehicle. Depending upon the violations cited, repairs may be required before the truck is released from the inspection area or weigh station.



Driver

Vehicle

Putting Safe Vehicles on the Highway

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Vehicle

Putting Safe Vehicles on the Highway

Qualified drivers are but half the safety equation; well maintained commercial motor vehicles are the other. Your commercial motor vehicles must be well maintained, inspected daily, repaired promptly when needed, and properly identified.

USDOT Number

A U.S. Department of Transportation (USDOT) number is the motor carrier identification number issued to each carrier by the Federal Motor Carrier Safety Administration (FMCSA); the acronym USDOT always precedes the numerals. All of your company's commercial vehicles are assigned the same number, whether or not you operate in multiple states.

DOT Regulations

for commercial motor vehicles

The USDOT number must be displayed on two sides of each commercial vehicle's power unit. The number must be visible from a distance of 50 feet (two-inch numerals generally meet this requirement). The color of the USDOT number must contrast with the background.

Indiana DOT Number

Commercial motor vehicles are classified as interstate or intrastate carriers. If you operate commercial motor vehicles solely in Indiana (intrastate), you must register your company with the Indiana Department of Revenue Motor Carrier Services. Once registered, you are required to place the abbreviation "IN" at the end of your USDOT number to alert DOT inspectors that yours is an Indiana-based company that transports only within the state; i.e., that you do not transport out of state.

Additional Markings

The other marking requirement for your commercial motor vehicles is the legal (trade) name of your company. Like the DOT number, it must be visible from 50 feet and must contrast with the vehicle's background color. Additional markings such as the city and state are optional.

Emergency Equipment

Commercial motor vehicles must be equipped with fire extinguishers and spare fuses (for brake lights, etc.) as well as emergency flares or three red emergency triangles. Fire extinguishers must be securely mounted on the vehicle, yet easily accessible. The requirement is one National Fire Protection Association extinguisher rated 5 B:C or more, or two fire extinguishers rated 4 B:C or more. A fire extinguisher with a minimum rating of 10 B:C is required for vehicles placarded for hazardous materials.

You have a choice of three reflective triangles (left) or liquid-burning flares. Because flares have a limited life, most carriers elect to use emergency reflective triangles; but if you choose flares you must equip each vehicle with enough to last for the most time-consuming breakdown imaginable. Flares may not be used if the materials in transport are explosive, combustible, or flammable.

Retroreflective Tape

Regulations now require trailers to be marked with retroreflective tape, more commonly referred to as conspicuity tape, to make them more visible at night. All trailers and semitrailers with Gross Vehicle Weight Ratings (GVWRs) greater than 10,000 pounds and widths of 80 inches or more must be marked with retroreflective tape. The tape must cover at least 50 percent of the length of each side of the trailer and be evenly distributed across the length.

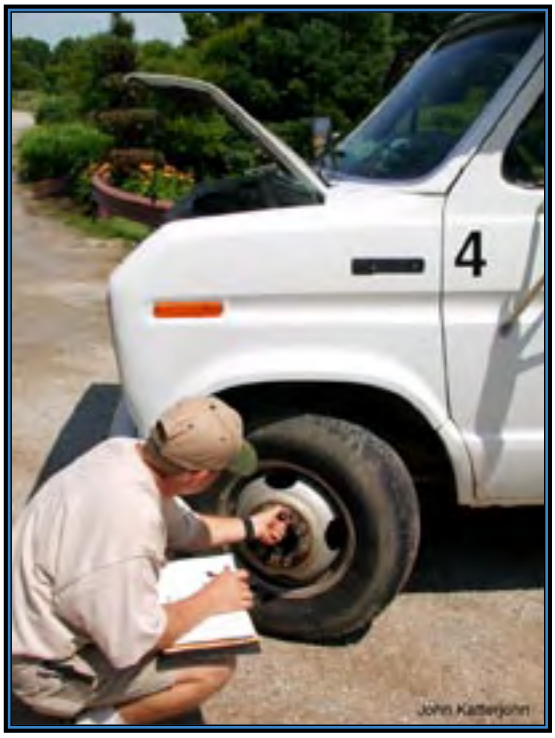
Rear tape markings are also required. The lower rear portion of a trailer must have reflective tape extending the

full width of the trailer. The upper rear area of the trailer must have two pairs of white reflective tape displays mounted horizontally and vertically on the upper left and right corners, and they should be placed as close as possible to the top of the trailer and as far apart as possible.

Pre- and Post-Trip Inspections

The purpose of two daily equipment inspections—the *pre-trip visual inspection* and the *post-trip written inspection*—is to identify mechanical flaws and/or defective equipment on the commercial motor vehicle that could present a safety hazard to the driver or others on the road.

Pre-Trip Visual Inspection



The purpose of the driver's pre-trip visual inspection is to verify that the vehicle is in safe operating condition, yet no documentation of the inspection is required. The inspection includes testing the service brake, parking brake, steering mechanism, lights, tires, horn, windshield wipers, rear view mirrors, and coupling device. Drivers should review the most recent post-trip inspection report on the vehicle and, if defects or deficiencies were noted, verify that necessary repairs have been completed. If an uncorrected problem makes the vehicle unsafe to drive, drivers should inform their supervisor that they are not legally allowed to drive it until it is repaired.

Post-Trip Written Inspection Report

Drivers must perform their post-trip inspection at the end of their shift and report problems in a written report called the Daily Vehicle Inspection Report (DVIR). The DVIR alerts the carrier supervisor or mechanic to the condition of the vehicle at the end of the driver's shift and alerts the next driver of the vehicle's condition.

Drivers must complete a post-trip inspection report for each vehicle they drive during a shift. The report shall cover, as a minimum, the following parts and accessories:

- Service brakes
- Parking brake
- Steering mechanism
- Lights
- Tires
- Horn
- Windshield wipers
- Rear view mirrors
- Coupling devices
- Wheels and rims
- Emergency equipment

A vehicle with deficiencies that are likely to affect its safe operation must be placed out of service until repairs are made. Before you allow the vehicle back into service, you must confirm the repair of any defects listed on the post-trip written inspection report that would be likely to affect the safe operation of the vehicle. All repairs must be noted on the DVIR, which must be signed by the person who makes the repairs. A copy of the DVIR must be kept in the vehicle maintenance file for 90 days past the date of the report; however, drivers are not required to keep a copy of the previous day's post-inspection report in the vehicle.

Annual Vehicle Inspection

John Katterjohn

A DOT inspection is required every 12 months for all commercial motor vehicles, including trailers. The annual vehicle inspection (see appendix G in FMCSA) shall be completed by a qualified mechanic employed by the carrier or a person contracted by the carrier to perform the inspection. The DOT does not have a certification requirement for inspectors; however, inspectors must be knowledgeable of DOT requirements and have the education and/or experience necessary to conduct comprehensive inspections. A document certifying that the employee is qualified to conduct a DOT annual inspection is placed in the personnel file. Many companies voluntarily put this information on a sticker and place it on the driver-side door or window. Some companies place a copy of the annual inspection report in the vehicle.

The following information must be included in the annual inspection report:

- The vehicle identification number
- The date of the inspection
- The name and address of the motor carrier or another location where the inspection report is maintained
- A statement indicating that the inspection complies with federal regulations

Each vehicle in a combination must carry separate periodic inspection documentation unless a single document clearly identifies all vehicles in the commercial motor vehicle combination.

Vehicle Maintenance File

Create and maintain files for all maintenance and tests completed on your commercial motor vehicles and trailers. The following records must be maintained for as long as you operate the vehicle and for six months after the vehicle leaves your control:

- Vehicle identification, including the company vehicle unit number, vehicle make, serial number, year of manufacture, and tire size
- Records of inspections, repairs, and maintenance (including dates and descriptions)

Original copies of post-trip inspection reports and certification of completed repairs may be removed from the vehicle maintenance file after 90 days. The original copy of the current annual inspection report may be removed from the file after 14 months.

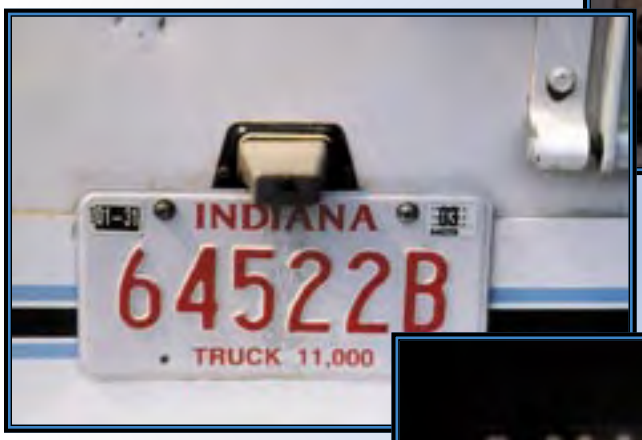
Vehicle Registration and License Plates

The original copy of the vehicle registration and the trailer registration, if applicable, must be kept in the vehicle.

Almost every piece of on-road equipment driven on Indiana highways requires a specific license plate. The type of plate is based on the Declared

Gross Weight or the use of the vehicle. The Declared Gross Weight is the most weight the carrier anticipates hauling, including the load and driver. As the gross weight of a vehicle and its cargo rises, so do the fees for the required plate.

One method of plate selection is based on the Gross Vehicle Weight Rating (GVWR). If the GVWR is 23,000 pounds, select your license plate accordingly. If you anticipate that the vehicle will never carry 23,000 pounds, select a plate for a more realistic maximum gross weight. For example, a vehicle with a GVWR of 23,000 pounds could be licensed with a plate for a declared gross weight of



13,000 pounds if that is the maximum load anticipated. This licensing method reduces your expense by allowing you to select the lower-rated plate based on weight.

There are serious repercussions when a vehicle is found to be heavier than the weight indicated on its license plate. The overage allowed by Indiana law is 1.5 percent (0.015). Drivers of vehicles that exceed their registered weight by more than 1.5 percent may be ticketed and their vehicles impounded. All applicable fines and the impoundment fees would have to be paid—and the proper weight plates purchased—before the vehicles could be released.

Driving Across State Lines

The International Registration Plan (IRP) coordinates the registration and payment of fees for vehicles that routinely travel across state lines or into Canada and Mexico. Its primary function is to eliminate the need for multiple license plates. Specifications for IRP registration are as follows:

- A power unit with two axles and a GVWR over 26,000 pounds
- A power unit with three or more axles, regardless of weight
- A gross vehicle/trailer weight over 26,000 pounds

In Indiana, the IRP is managed by the Indiana Department of Revenue. The application form requires you to list the states into which the vehicle will travel to pick up products for transport and the total estimated mileage for each state. Fees are prorated accordingly, and the vehicle is issued an Indiana Apportioned (APP) license plate. The "cab card" (a prorated vehicle registration) lists all states in which the vehicle is registered to travel as well as gross weights for each of those states. *The cab card must be carried in the vehicle at all times.*

Special Machinery Plates

Indiana offers a less expensive Special Machinery Plate solely for "implements of husbandry" defined as spray equipment, livestock dipping equipment, and seed cleaning and treating equipment. A Special Machinery Plate authorizes driving of said equipment on the road *only to get from one job site to another.*

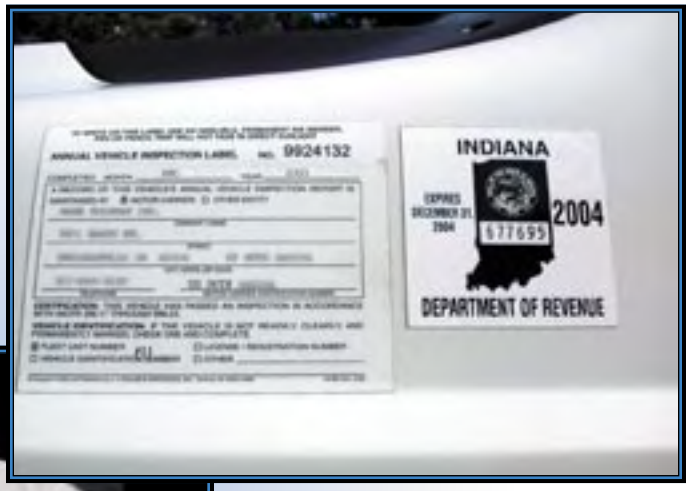
Fuel Tax

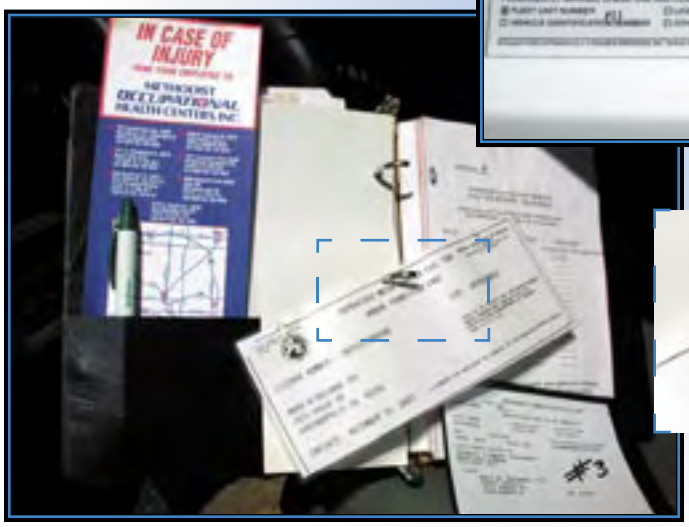
A portion of the purchase price of fuel is allocated for local, state, and federal taxes; and most states require large vehicles to pay an additional road use tax calculated per gallon of fuel consumed. Motor vehicles that qualify for the road use tax are those that are used, designed, or maintained for the transportation of persons or property and

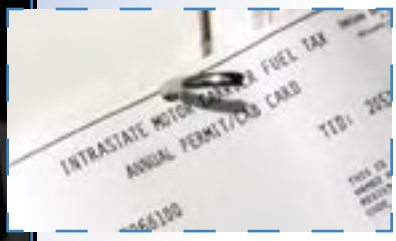
- have two axles and a gross vehicle weight or registered gross weight over 26,000 pounds;
- have three or more axles regardless of weight;
- have a gross vehicle weight or registered gross vehicle weight over 26,000 pounds when used in combination; or
- have seats for 10 or more passengers in addition to the driver.

Vehicles that meet these criteria are subject to the Indiana fuel tax program. The tax is paid by Indiana-based carriers who operate solely within the state. It is calculated by multiplying the total amount of fuel used in Indiana by the current fuel tax rate. It is paid quarterly.

An annual permit (sticker) must be displayed on each motor vehicle that meets the fuel tax criteria; the Indiana permit bears a black outline of the state. You must keep the original permit at the address shown on the







cab card and keep a photocopy in each vehicle. The annual permit, cab card, and sticker are valid January 1 through December 31 of each year.

International Fuel Tax Agreement

The Motor Carrier Services Division of the Indiana Department of Revenue (IDR) participates in a program called the International Fuel Tax Agreement (IFTA). The program works in a manner similar to that of the International Registration Plan; that is, carriers that operate in multiple states are not required to obtain a fuel tax permit for each state.

IFTA requires you to keep records of all fuel purchased (per vehicle, per state) and all mileage (also per vehicle, per state). Each quarter, you must submit to the Indiana Department of Revenue your total fuel tax owed for vehicles based in Indiana. IDR then sends to each state its portion of the tax collected, based on its percentage of the total miles traveled.

The fuel tax registration, sticker, and card are recognized by all states. The IFTA sticker has the outline of the state in which the vehicle is registered, a stamped abbreviation of the state, the acronym “IFTA,” and the year for which the permit is valid.

Heavy Use Tax

In addition to the taxes mentioned previously, vehicles with a GVWR greater than 55,000 pounds are required to pay a tax known as the Heavy Vehicle Use Tax. In many cases, you will need to provide proof of payment before you will be able to license the vehicle.

HAZMAT

COMSTOCK.IMAGES®

Transporting Hazardous Materials

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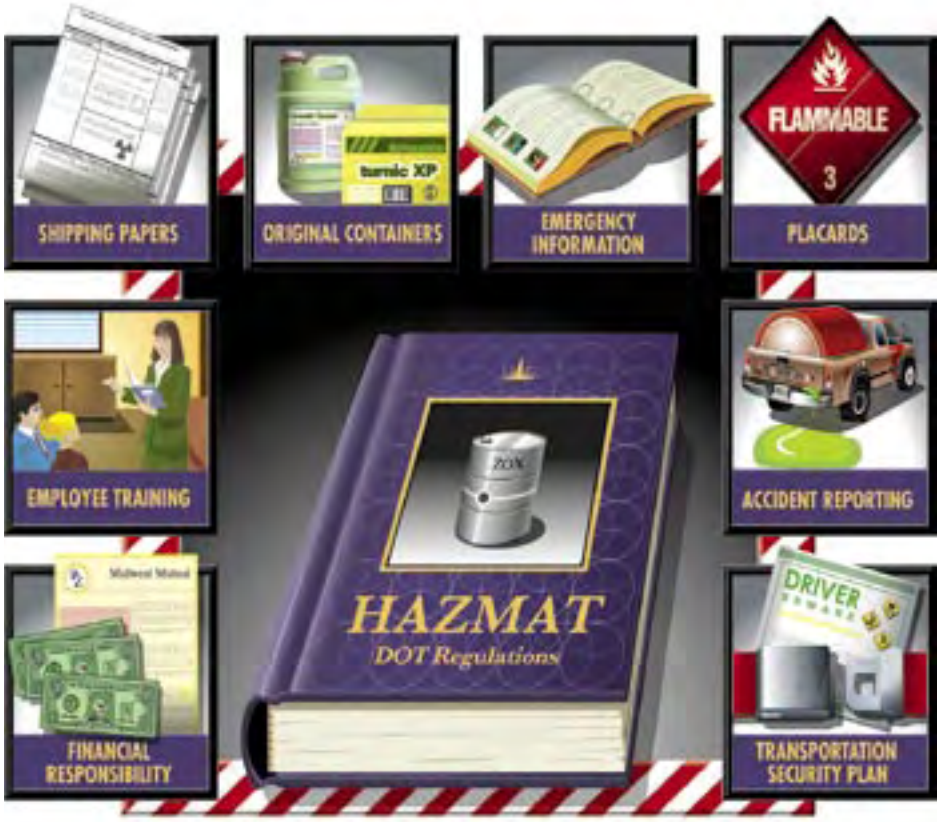
HAZMAT

TruGreenChemLawn™

Transporting Hazardous Materials

Statistics generated from intrastate and interstate commerce involving hazardous materials (HAZMAT) are staggering. *Industrial Safety and Hygiene News* reported that 50 transportation incidents involving hazardous materials are reported daily in the United States. According to the same report, in a typical year 18,000 incidents, 13 deaths, 246 injuries, and $72,700,000 in damages occur. Serious numbers. Serious consequences.

A great deal of scrutiny has been placed on the transportation of hazardous materials since the tragic events of September 11, 2001. The FBI and other agencies suggest that vehicles transporting hazardous materials would be easy targets for terrorists.



HAZMAT Regulations

for commercial motor vehicles

For this and obvious safety reasons, hazardous materials are highly regulated from product manufacture and packaging through delivery to the marketplace. Most transportation rules are very specific. For example, they specify

- package and container design;
- package and container labeling;
- identification verbiage for shipping papers;
- placard requirements; and
- employee training requirements.

Hazardous Materials Regulations

Do you need to comply with hazardous materials regulations? First you must determine whether you use, handle, or transport hazardous materials. There are several agencies that list products that are considered hazardous materials, but the Department of Transportation (DOT) identifies as hazardous "those materials and substances that are capable of posing an unreasonable risk to health, safety, and property when transported in commerce."

There are various ways to determine whether a material is hazardous according to DOT standards. This is the first step in determining whether the chemicals you transport are covered by HAZMAT regulations.

Shipping Container Label

Does the packaging have a diamond-shaped (square-on-point) DOT label with a HAZMAT number in the bottom point? If so, the product is considered a DOT hazardous material (see Appendix, p. 86).

Material Safety Data Sheet

DOT information is sometimes listed on the Material Safety Data Sheet (MSDS) under the heading "Transportation Information." For example, the MSDS for the herbicide Gramoxone Max states that the product is a DOT-regulated hazardous material. It also lists the material's official shipping description. For example: Bipyridilium Pesticides, Liquid, Toxic, N.O.S. (paraquat solution), Class 6.1 (9.2), UN 3016, PG III.

Shipping Papers

All HAZMAT shipments require a shipping paper that contains a proper description of the transported material. Shipping papers may be bills of lading, invoices, delivery tickets, etc., as long as they meet the criteria for shipping paper information as identified in 49 CFR Part 172.200 of the DOT Hazardous Materials Regulations (see p. 71).

DOT Listing

Approximately 5,000 materials—all regulated by DOT—are listed in the Hazardous Materials Table and Appendix of 49 CFR Part 172.101.

Materials of Trade

DOT rules are written to regulate the transportation industry, and many pesticide application companies transport regulated materials routinely: pesticides, gasoline and diesel fuel (for powering equipment and servicing vehicles), etc.

A Material of Trade (MOT) is a hazardous material carried on a motor vehicle to support the operation or maintenance of a motor vehicle, or on a private motor carrier that uses the material in direct support of a principal business other than a transportation business.

Companies that carry small amounts of certain hazardous materials (check specific guidelines p. 69) may be exempt from DOT hazardous materials

regulations under MOT exceptions (49 CFR Part 173.6). The MOT provision waives the requirements for shipping papers, emergency response information, placards, recordkeeping, and formal training.

Information Needed to Qualify for the Materials of Trade Exception

Make a list of the following information to determine your eligibility for a Materials of Trade exception:

- Name of the hazardous material

  Look for a diamond-shaped DOT label on each package or container; products without a DOT label are not considered hazardous under DOT regulations and therefore should not be listed.

- Hazard classification

  Record the hazard classification from the lower part of the diamond shaped label on the HAZMAT product.

- Package size

  Identify the capacity of the bags, jugs, or other containers; e.g., 1- or 2.5-gallon plastic containers, 110-gallon mini-bulk containers, 50-pound bags, etc.

- Packing group

  Check the diamond-shaped DOT label for the Packing Group Number: PG I, PG II, or PG III. The Packing Group indicates the degree of hazard: PG I means great danger, PG II means medium danger, and PG III means minor danger. If you cannot locate the Packing Group number on the label, it should be available from

  - the transportation section of the MSDS,
  - the shipping papers provided when the product was delivered,
  - the company that supplied the product, or
  - the product manufacturer.

- Total weight

  USDOT regulations differ from others in that the amount of chemical is based on the entire weight of the product and its packaging, not on the percentage of active ingredient. For example, while a 50-pound bag of product with a 50 percent active ingredient represents only 25 pounds under certain federal reporting laws, it represents 50 pounds under DOT regulations. It is important to remember that the weight includes the packaging and the material.

Qualification for the Materials of Trade Exception

Do your hazardous chemicals qualify for the Materials of Trade Exception? Use your product information list to determine your eligibility for MOT Exceptions. A product is considered an MOT if it meets one of the following requirements:

- Class 3, 8, 9, Division 4.1, 5.1, 5.2, 6.1, or other regulated materials, contained in one package, with a capacity not over
  - 1 pound or 1 pint for a PG I material;
  - 66 pounds or 8 gallons for a PG II, PG III, or other regulated materials; or
  - 400 gallons of a diluted mixture not to exceed a 2 percent concentration of a Class 9 material.

- 220 pounds of a Division 2.1 or 2.2 material in a cylinder (e.g., oxygen/ acetylene).
- A one-ounce package (or less) of a Division 4.3, PG II, or PG III material.

No more than 440 pounds of any hazardous material not specified above may be transported.

If all of the DOT hazardous materials that you transport fit the previous exceptions, they are considered Materials of Trade and you are exempt from HAZMAT requirements if the following additional conditions are met:

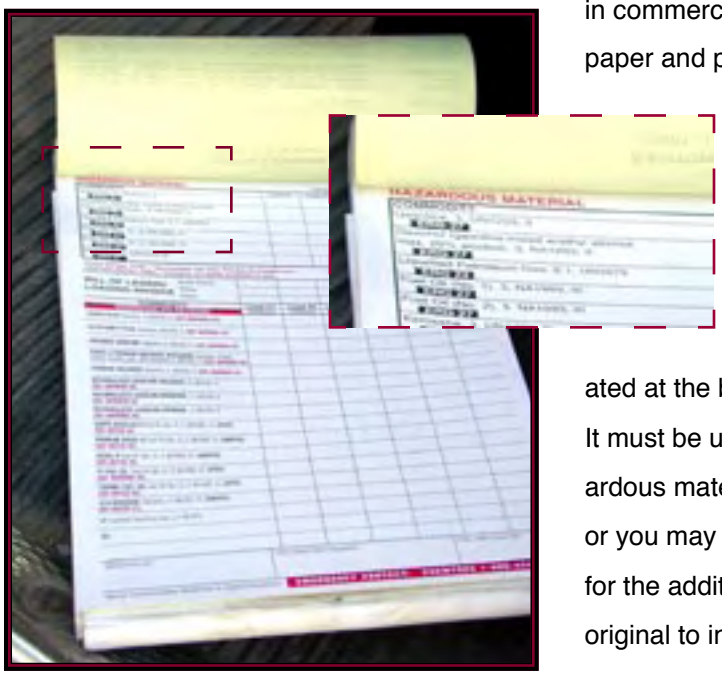
- Packaging must be leakproof for liquids and gases, sift-proof for solids.
- Packages must be securely closed, secured against movement, and protected against damage.
- Gasoline must be contained in containers approved by DOT or the Occupational Safety and Health Administration (OSHA).
- Cylinders and pressure vessels must be marked with the proper shipping name and must have the identification number and DOT label attached.
- A non-bulk package other than a cylinder (including receptacles transported without outer packaging) must be marked with a common name or shipping name to identify the contents, including the letters “RQ” if it contains a Reportable Quantity of a hazardous substance.
- A tank that contains a diluted mixture (not more than 2 percent concentration) of a Class 9 material must be marked on two opposite sides with the 4-digit United Nations (UN) or North America (NA) identification number.
- The operator of a motor vehicle that contains MOT must be informed of the presence and amount of the hazardous material.

Complying with Hazardous Materials Regulations

The following requirements are for hazardous materials that do not meet MOT exceptions as defined by DOT. It is important to note that the requirements accompanying a hazardous material apply to any vehicle—truck or car, large or small—and to tanks and single bags or packages. Even if the transport vehicle does not meet the definition of "commercial motor vehicle," the materials being transported might be listed in DOT hazardous materials regulations.

Shipping Papers for Hazardous Materials

The shipping paper system works in the following manner: Any shipper or individual who obligates someone else to transport hazardous materials in commerce is required to prepare a shipping paper and provide a copy for the driver. The shipping paper must accompany the driver during transfer of the materials from the shipper's facility to your business or job site.



A shipping paper must be generated at the beginning of every transportation shift. It must be updated during transport if more hazardous materials are added to the original load; or you may prepare a separate shipping paper for the additional materials in lieu of rewriting the original to include them.

While not required, many companies elect to keep a running total of hazardous materials used or off-loaded. This information can be useful in explaining to a DOT inspector or an emergency responder (in the event of an inspection

or incident) that the quantity of chemicals actually on-board is less than the quantity stated on the shipping paper at the beginning of the day.

There is no specific type of shipping paper required (i.e., there is no form to use), but the following criteria must be met. Hazardous materials must be

- listed first (i.e., before non-hazardous materials on the same load); or
- entered or highlighted in a color that contrasts with any non-hazardous materials listed; or
- identified by an “X” or an “RQ” before the proper shipping name in the hazardous materials column.

To create a shipping paper, copy the information exactly as stated on the original shipping paper for the product you received, and list it in the same order. Add to this list the quantity, number of containers, and product name. The quantity may be described in gallons, pounds, truckload, etc. The product name is optional, but it could prove useful during an emergency. *Failure to properly complete a shipping paper is a serious DOT violation.*

The shipping paper must be within arm’s reach of your drivers at all times while they are restrained by the seat belt. Generally, it is placed in the seat pouch or in the driver’s-side door pocket. Whenever drivers vacate the vehicle, the shipping paper must be placed in the driver’s door pocket or on the driver’s seat for easy access if an emergency occurs. You must retain a copy of each shipping paper for a period of 375 days, beginning on the date you accept the shipment for transport.

Concentrated Products Must Remain in Original Packages

Hazardous products in concentrate must remain in their original packaging for transport, and a DOT label must be visible for the benefit of emergency responders in case an incident occurs.

Emergency Response Information

The driver and anyone involved in any aspect of storing, loading, and receiving hazardous materials must be provided all pertinent emergency information.

The following are key pieces of emergency information:

- An emergency telephone number that is answered 24 hours a day, 365 days a year, by a person well-versed in emergency response or by someone who has direct access to such a person. This is required when hazardous chemicals are being moved from one point to another. There are commercial companies that specialize in dealing with hazardous chemicals, and they are available to provide HAZMAT information to responders.

  An emergency phone number is not required when hazardous materials are in storage at your facility, but having the 24-hour emergency number listed on the shipping paper is critical; in the event of an accident, emergency responders will call the number to notify responsible parties. If the 24-hour phone number is for a subscription service, the dispatcher will call to notify you or your company of the incident. You can then take charge of the situation.

- Information specific to the hazardous material is required:

  - Basic description of the HAZMAT and its DOT-designated (technical) name
  - Immediate health hazards that it poses
  - Risk of a fire or explosion
  - Immediate precautions that must be taken in the event of an accident

If the transport vehicle were involved in an accident, this information would allow first responders—emergency medical technicians, law enforcement personnel, and firefighters—to quickly determine that it is carrying hazardous materials. Immediate access to such vital information allows responders the time to react appropriately to protect themselves and others while dealing with the incident.

Refer to the DOT Emergency Response Guidebook (ERG) to meet this requirement, or obtain a copy of the MSDS for each hazardous material you transport. Note that if you rely on the ERG, the page containing emergency information for each hazardous material must be noted on the shipping paper.

HAZMAT Training for Employees

Employees who work around hazardous materials—dock workers, truck drivers, those who prepare shipping papers, and forklift operators who load and unload hazardous materials—are required to receive HAZMAT training. This requirement applies to anyone who offers for transport, accepts for transport, transfers, or otherwise handles hazardous materials in transit.

Hazardous materials training must include

- general awareness education, including how to respond in the event of an emergency, how to read shipping papers, and how to use the DOT Emergency Response Guidebook;

- job-specific instruction, including how to safely load and off-load hazardous materials;

- safety education on personal protection equipment and notification requirements; and

- driver education for those who operate motor vehicles on the job (must include materials on how to drive specific vehicles and equipment, and how to conduct pre- and post-trip inspections).

Initial training must be completed within 90 days of employment. Prior to training, employees may work with hazardous materials only under the direct, on-site supervision of an experienced employee who has completed HAZMAT training. Employees who handle or transport hazardous materials or offer them for transport must take a refresher course at least every three years.

Each employee trained must be tested, but the manner of testing is left to the discretion of the employer; DOT regulations do not specify a certain test. The test may be written, verbal, or based on performance—or any combination thereof. Most employers review tests and answers with their employees. The person offering training must be qualified through experience, possess a CDL with appropriate endorsements, or have attended an instructor training program.

The employer must maintain documentation that HAZMAT employees have been trained and tested, and that current employees receive a refresher course at least every three years. The record of training for each employee must contain

- the trainee's name;

- the date training was completed;

- either a copy of the materials used in training or a detailed description of the training;

- the name and address of the person who conducted the training; and

- a certification statement, signed by the employer, indicating that the HAZMAT employee was trained and tested.

This documentation is to be placed in each driver's qualification file for a minimum of three years; it also must remain in the file for 90 days after an employee leaves the company.

Financial Responsibility

Each business that transports hazardous materials must have cargo and public liability insurance; the amount of insurance coverage varies with the kind of materials transported. Basic coverage ranges from $750,000 per year for some materials to $5,000,000 per year for propane and anhydrous ammonia. Proof of insurance for carrying hazardous materials must be maintained at your business office, but it is not required in the vehicle unless the material is being transported to Canada or Mexico.

Hazardous Materials Registration

Businesses that offer certain quantities and types of hazardous materials for transport must register with the Department of Transportation through the Research and Special Projects Administration. If the materials transported or offered for transport require placards, the company is required to register annually. The regulations specify types of materials that require business registration.

The registration fee depends on the size of your company and is payable to USDOT. Each registration year begins July 1 and ends June 30. If your business requires registration, you must submit a Certificate of Registration annually by June 30; use DOT Form F 5800.2 available online at http://hazmat.dot.gov. You are not allowed to transport hazardous materials until your form is submitted and your registration fee is paid.

Businesses are required to keep a copy of each Certificate of Registration at their principal place of business for three years from the date of the certificate. A current copy of the Certificate of Registration must be kept in the cab of each vehicle used to transport hazardous materials.

Transportation Security Plan

Companies that ship or transport certain hazardous materials in quantities that require placards must develop and implement a transportation security plan (49 CFR Part 172.800-804). The written security plan must include an assessment of possible transportation security risks. At a minimum, the security plan must include measures to address personnel, unauthorized access, and en route transportation issues.

The security plan must be in writing and retained for as long as it remains in effect; copies must be made available to employees who are responsible for implementing the plan. The plan must be updated as necessary to reflect changing circumstances.

New employees who will be handling hazardous materials must receive security training within 90 days after employment or a change in job function. Employees must be retrained every three years. The record of such training must be kept for as long as they are employed with the firm and for 90 days thereafter. The training must include the following:

- Security awareness training

  Each HAZMAT employee must receive training that instills an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. The training must include a component on how to recognize and respond to security threats.

- In-depth security training

  Each HAZMAT employee must be trained on the security plan and implementation procedures. The training must include company security objectives, specific security procedures, employee responsibilities, actions to be taken in the event of a security breach, and the security structure of the business.

Routing Hazardous Chemicals

In an attempt to keep hazardous materials from being transported through congested or heavily populated areas, jurisdictions around the country are declaring stretches of roadway off limits to HAZMAT carriers. For example,

trucks carrying placarded quantities of hazardous materials are required to travel around Indianapolis, using Interstate 465; instructions are posted on signs (right) along the major thoroughfares leading to the city.

Placard Requirements and Placement

Very few materials transported by commercial pesticide application and retail sales businesses require placards, primarily because most pesticides are not HAZMATs by DOT definition and, of those that are, the quantities transported do not meet placard thresholds.

Placards are designed primarily to alert emergency responders and roadside inspectors that a vehicle is transporting a hazardous material in a significant quantity. They are large versions of DOT package labels (square-on-point insignia) placed on all four sides of vehicles. Each placard classification has a defined shape, color, and layout; and in some cases the 4-digit United Nations number appears in the center of the placard.

The Vikane being transported in the red truck is represented by the diamond-on-point placard.

Placard requirements are determined by the amount and type of material in transit. Placards convey specific hazards that could result from release during transportation. Consider the following questions (in listed sequence) to determine whether placards are required:

- Are there any Table I hazardous materials on-board in quantities that require placards? If yes, attach the necessary placards. If no, proceed to the next question.

Tank holding anhydrous ammonia clearly identifies the hazard.

- Are there any Table II hazardous materials in the shipment? If yes, go to the next question. If no, placards are not required.
- Does the shipment contain a total of 1001 pounds of Table II materials? If yes, apply a placard for each hazardous material. If no, placards are not required.

Placards are required for any quantity of Table I hazardous materials transported. Placards are required for some materials in any quantity. For example, chloropicrin and methyl bromide (both are poison inhalation hazards), and aluminum phosphide (dangerous when wet). Also included in Table I are explosives, organic peroxides, and certain radioactive materials.

Placards are required for any vehicle transporting more than 1,000 pounds or more (total gross weight) of hazardous materials in non-bulk containers. A non-bulk container is a tank with a liquid capacity of 119 gallons or less, or a tank that has a water capacity of 1000 pounds or less of a gas, or a package containing 882 pounds or less of a solid. Class 9 and other regulated materials are exempt from placarding if transported within the United States.

Is the tank capacity more than 119 gallons? Will it be used to transport hazardous materials? If yes to both questions, the vehicle and cargo are subject to DOT placarding regulations.

Placards are required for any quantity of regulated hazardous materials carried in bulk containers. A bulk container is any container with a capacity greater than 119 gallons for liquids, a net mass greater than 882 pounds for solids, or a water capacity greater than 1000 pounds for gases. The chemical has to be DOT-regulated, and it has to be transported in a bulk container.

Some materials used by farmers and custom agricultural applicators are not hazardous materials by DOT definition but are considered hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), sections 101 and 102.

See Table 49 CFR Part 172.101, in the Appendix, which lists materials and their RQs. These may be classified as Class 9 or other regulated materials, or they may be categorized as “consumer commodities.” They may not require placards for domestic shipments but are regulated by DOT when the amount transported meets or exceeds the RQ in a single bulk or non-bulk container.

The materials’ UN numbers must be displayed on orange panels on bulk or non-bulk containers, and the materials must be listed as “regulated materials” on the shipping paper. In the case of a cargo tank on a spray truck or a large package such as a 30-gallon drum, the UN numbers must be displayed if the amount of material in the tank or in a single container exceeds the RQ. Once the amount of product mixed in solution or carried in a container falls below the RQ, the UN number may be removed from the container or tank provided no other materials being transported require it.

The shipper must provide placards along with the material for transport (unless you already have them), but you and your driver are responsible for placing the placards correctly on the load or vehicle. Placards for vehicles transporting non-bulk packages must be displayed on both sides and both ends of the vehicle. If a truck or tractor is pulling a trailer, the placard may be on the front of the trailer or on the front of the truck or tractor.

A portable bulk tank (119–1000 gallons) requires placards on two sides. A permanently mounted bulk tank with a capacity of 119 gallons or more (except for Class 9 materials) and a portable tank with a capacity over 1000 gallons requires placards; the primary hazard placard and/or UN identification numbers must be displayed on each side and both ends of the tank.

Reporting HAZMAT Accidents

You are required to report certain accidents or incidents to the U.S. Department of Transportation. Incident reports are used by DOT to show trends and patterns in the transportation industry and to identify carriers with poor performance records. The reports are also used to develop new and improve existing regulations, to target enforcement actions when trends are noted, and to identify carriers subject to on-site compliance audits by a federal safety investigator or state police compliance review officer (DOT inspector or trooper).

As a carrier of hazardous materials, you shall notify the National Response Center, (800) 424-8802, immediately after an incident occurs as a direct result of hazardous materials and any of the following:

- Death
- Injury requiring emergency hospitalization
- Damage exceeding $50,000 to the vehicle or property
- Towing of a vehicle
- Evacuation of the general public for one or more hours
- Closure of a major road for an hour or more
- Alteration of the operational flight pattern or normal routine of an aircraft

- An incident involving radioactive materials
- An incident involving infectious substances
- Release of a marine pollutant in excess of 119 gallons or 882 pounds
- Any situation not noted above that, in the judgment of the carrier, should be reported

Drivers will be asked to provide answers to the following questions:

- Name of the person filing the report
- Name and address of the employer of the person filing the report
- Phone number where the person making the call can be reached
- Date, time, and location of the incident
- Extent of injuries, if any
- Classification, name, and quantity of hazardous materials involved
- Details of the incident and whether the problem is ongoing

You must submit (within 30 days) a completed incident report, DOT Form E5800.1, to the

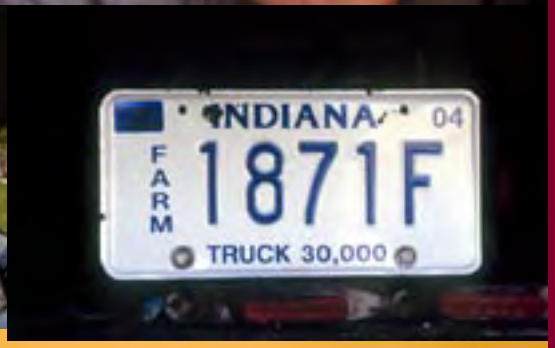
Information Systems Manager
DHM-63
Research & Special Programs Administration
Department of Transportation
Washington, DC 20590-0001

You are required to keep the incident report for two years.

HAZMAT

Kevin Pass

Kevin Pass



Conclusion

The purpose of DOT regulations is to assure the safe commercial transportation of products and services. The key word is safe. We emphasize the safe operation of commercial motor vehicles and insist that they be driven by responsible, well-trained drivers—safe drivers backed up by responsible employees. There are many benefits to compliying with minimum safety standards: discovery of equipment problems and arranging for repairs before they become a serious safety hazard; reduced potential for mishap, due to good training and maintenance practices; fewer accidents; and promotion of a positive image, both to your employees and to the public.

Good communication with your drivers is the key to their success—and yours! As carriers and shippers it is essential that you stay up-to-date with DOT regulations and train your drivers accordingly; their safe transportation of cargo on our roadways depends on it. Take the initiative to educate your drivers and to impress upon them the responsibility they bear when transporting cargo and passengers across the U.S.A., Canada, and Mexico.

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Photos not otherwise credited were taken by the primary author.

Hazard Classification

There are nine classes of hazards in the DOT classification system. A hazardous material is assigned to one of these classes based on its characteristics. Please note that some of the classes are further divided: Division 1.1, Division 1.2, etc. In Class 1, the most dangerous material is indicated by the smallest number (1.1) and the least dangerous is indicated by the largest number (1.6). In Classes 2, 4, 5, and 6, the most dangerous material is indicated by the largest number and the least dangerous is indicated by the smallest number.

- **Class 1: Explosives**
  - Division 1.1 – Mass explosives
  - Division 1.2 – Projection hazard, no mass explosives
  - Division 1.3 – Fire and minor blast or projection hazard or both
  - Division 1.4 – Minor blast hazard
  - Division 1.5 – Insensitive mass explosion hazards
  - Division 1.6 – Extremely insensitive detonating substances
- **Class 2: Gases**
  - Division 2.1 – Flammable gases
  - Division 2.2 – Non-flammable, compressed gases
  - Division 2.3 – Poison gases
- **Class 3: Flammable liquids (includes combustible liquids)**
- **Class 4: Flammable solids**
  - Division 4.1 – Flammable solids
  - Division 4.2 – Spontaneously combustible
  - Division 4.3 – Dangerous when wet
- **Class 5: Oxidizers and organic peroxides**
  - Division 5.1 – Oxidizers
  - Division 5.2 – Organic peroxides
- **Class 6: Toxic/poisonous materials**
  - Division 6.1 – Zone A or B – Poison Inhalation Hazards (PIH)
  - Division 6.1 – Other than PIH
  - Division 6.2 – Infectious substances
- **Class 7: Radioactive material**
- **Class 8: Corrosives**
- **Class 9: Miscellaneous hazardous materials**

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