

## Title 49: Transportation

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### PART 390—FEDERAL MOTOR CARRIER SAFETY REGULATIONS; GENERAL

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**Authority:** 49 U.S.C. 508, 13301, 13902, 31133, 31136, 31502, 31504, and sec. 204, Pub. L. 104–88, 109 Stat. 803, 941 (49 U.S.C. 701 note); sec. 114, Pub. L. 103–311, 108 Stat. 1673, 1677; sec. 217, Pub. L. 106–159, 113 Stat. 1748, 1767; and 49 CFR 1.73.

**Source:** 53 FR 18052, May 19, 1988, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 390 appear at 66 FR 49873, Oct. 1, 2001.

#### Subpart A—General Applicability and Definitions

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### § 390.1 Purpose.

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This part establishes general applicability, definitions, general requirements and information as they pertain to persons subject to this chapter.

### § 390.3 General applicability.

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(a) The rules in subchapter B of this chapter are applicable to all employers, employees, and commercial motor vehicles, which transport property or passengers in interstate commerce.

(b) The rules in Part 383, Commercial Driver's License Standards; Requirements and Penalties, are applicable to every person who operates a commercial motor vehicle, as defined in §383.5 of this subchapter, in interstate or intrastate commerce and to all employers of such persons.

(c) The rules in Part 387, Minimum Levels of Financial Responsibility for Motor Carriers, are applicable to motor carriers as provided in §387.3 or 387.27 of this subchapter.

(d) *Additional requirements.* Nothing in subchapter B of this chapter shall be construed to prohibit an employer from requiring and enforcing more stringent requirements relating to safety of operation and employee safety and health.

(e) Knowledge of and compliance with the regulations.

(1) Every employer shall be knowledgeable of and comply with all regulations contained in this subchapter which are applicable to that motor carrier's operations.

(2) Every driver and employee shall be instructed regarding, and shall comply with, all applicable regulations contained in this subchapter.

(3) All motor vehicle equipment and accessories required by this subchapter shall be maintained in compliance with all applicable performance and design criteria set forth in this subchapter.

(f) *Exceptions.* Unless otherwise specifically provided, the rules in this subchapter do not apply to—

(1) All school bus operations as defined in §390.5;

(2) Transportation performed by the Federal government, a State, or any political subdivision of a State, or an agency established under a compact between States that has been approved by the Congress of the United States;

(3) The occasional transportation of personal property by individuals not for compensation nor in the furtherance of a commercial enterprise;

(4) The transportation of human corpses or sick and injured persons;

(5) The operation of fire trucks and rescue vehicles while involved in emergency and related operations;

(6)(i) The operation of commercial motor vehicles designed or used to transport between 9 and 15 passengers (including the driver), not for direct compensation, provided the vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating such vehicles are required to comply with §§390.15, 390.19, and 390.21(a) and (b)(2).

(ii) The operation of commercial motor vehicles designed or used to transport between 9 and 15 passengers (including the driver) for direct compensation, provided the vehicle is not being operated beyond a 75 air-mile radius (86.3 statute miles or 138.9 kilometers) from the driver's normal work-reporting location, and provided the vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating such vehicles are required to comply with §§390.15, 390.19, and 390.21(a) and (b)(2).

(g) *Motor carriers that transport hazardous materials in intrastate commerce.* The rules in the following provisions of subchapter B of this chapter

apply to motor carriers that transport hazardous materials in intrastate commerce and to the motor vehicles that transport hazardous materials in intrastate commerce:

(1) Part 385, subparts A and E, for carriers subject to the requirements of §385.403 of this chapter.

(2) Part 386, Rules of practice for motor carrier, broker, freight forwarder, and hazardous materials proceedings, of this chapter.

(3) Part 387, Minimum Levels of Financial Responsibility for Motor Carriers, to the extent provided in §387.3 of this chapter.

(4) Section 390.19, Motor carrier identification report, and §390.21, Marking of CMVs, for carriers subject to the requirements of §385.403 of this chapter. Intrastate motor carriers operating prior to January 1, 2005, are excepted from §390.19(a)(1).

[53 FR 18052, May 19, 1988, as amended at 54 FR 12202, Mar. 24, 1989; 58 FR 33776, June 21, 1993; 59 FR 8752, Feb. 23, 1994; 59 FR 67554, Dec. 29, 1994; 62 FR 1296, Jan. 9, 1997; 63 FR 33276, June 18, 1998; 64 FR 48516, Sept. 3, 1999; 66 FR 2766, Jan. 11, 2001; 68 FR 47875, Aug. 12, 2003; 69 FR 39372, June 30, 2004]

### § 390.5 Definitions.

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Unless specifically defined elsewhere, in this subchapter:

*Accident* means—

(1) Except as provided in paragraph (2) of this definition, an occurrence involving a commercial motor vehicle operating on a highway in interstate or intrastate commerce which results in:

(i) A fatality;

(ii) Bodily injury to a person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or

(iii) One or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicle(s) to be transported away from the scene by a tow truck or other motor vehicle.

(2) The term accident does not include:

(i) An occurrence involving only boarding and alighting from a stationary motor vehicle; or

(ii) An occurrence involving only the loading or unloading of cargo.

*Alcohol concentration (AC)* means the concentration of alcohol in a person's blood or breath. When expressed as a percentage it means grams of alcohol per 100 milliliters of blood or grams of alcohol per 210 liters of breath.

*Bus* means any motor vehicle designed, constructed, and or used for the transportation of passengers, including taxicabs.

*Business district* means the territory contiguous to and including a highway when within any 600 feet along such highway there are buildings in use for business or industrial purposes, including but not limited to hotels, banks, or office buildings which occupy at least 300 feet of frontage on one side or 300 feet collectively on both sides of the highway.

*Charter transportation of passengers* means transportation, using a bus, of a group of persons who pursuant to a common purpose, under a single contract, at a fixed charge for the motor vehicle, have acquired the exclusive use of the motor vehicle to travel together under an itinerary either specified in advance or modified after having left the place of origin.

*Commercial motor vehicle* means any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or

property when the vehicle—

- (1) Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater; or
- (2) Is designed or used to transport more than 8 passengers (including the driver) for compensation; or
- (3) Is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or
- (4) Is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, chapter I, subchapter C.

*Conviction* means an unvacated adjudication of guilt, or a determination that a person has violated or failed to comply with the law in a court of original jurisdiction or by an authorized administrative tribunal, an unvacated forfeiture of bail or collateral deposited to secure the person's appearance in court, a plea of guilty or nolo contendere accepted by the court, the payment of a fine or court cost, or violation of a condition of release without bail, regardless of whether or not the penalty is rebated, suspended, or probated.

*Direct assistance* means transportation and other relief services provided by a motor carrier or its driver(s) incident to the immediate restoration of essential services (such as, electricity, medical care, sewer, water, telecommunications, and telecommunication transmissions) or essential supplies (such as, food and fuel). It does not include transportation related to long-term rehabilitation of damaged physical infrastructure or routine commercial deliveries after the initial threat to life and property has passed.

*Direct compensation* means payment made to the motor carrier by the passengers or a person acting on behalf of the passengers for the transportation services provided, and not included in a total package charge or other assessment for highway transportation services.

*Disabling damage* means damage which precludes departure of a motor vehicle from the scene of the accident in its usual manner in daylight after simple repairs.

(1) *Inclusions*. Damage to motor vehicles that could have been driven, but would have been further damaged if so driven.

(2) *Exclusions*. (i) Damage which can be remedied temporarily at the scene of the accident without special tools or parts.

(ii) Tire disablement without other damage even if no spare tire is available.

(iii) Headlamp or taillight damage.

(iv) Damage to turn signals, horn, or windshield wipers which makes them inoperative.

*Driveaway-towaway operation* means an operation in which an empty or unladen motor vehicle with one or more sets of wheels on the surface of the roadway is being transported:

(1) Between vehicle manufacturer's facilities;

(2) Between a vehicle manufacturer and a dealership or purchaser;

(3) Between a dealership, or other entity selling or leasing the vehicle, and a purchaser or lessee;

(4) To a motor carrier's terminal or repair facility for the repair of disabling damage (as defined in §390.5) following a crash; or

(5) To a motor carrier's terminal or repair facility for repairs associated with the failure of a vehicle component or system; or

(6) By means of a saddle-mount or tow-bar.

*Driver* means any person who operates any commercial motor vehicle.

*Driving a commercial motor vehicle while under the influence of alcohol* means committing any one or more of the following acts in a CMV: Driving

a CMV while the person's alcohol concentration is 0.04 or more; driving under the influence of alcohol, as prescribed by State law; or refusal to undergo such testing as is required by any State or jurisdiction in the enforcement of Table 1 to §383.51 or §392.5(a)(2) of this subchapter.

*Emergency* means any hurricane, tornado, storm (e.g. thunderstorm, snowstorm, icestorm, blizzard, sandstorm, etc.), high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, mud slide, drought, forest fire, explosion, blackout or other occurrence, natural or man-made, which interrupts the delivery of essential services (such as, electricity, medical care, sewer, water, telecommunications, and telecommunication transmissions) or essential supplies (such as, food and fuel) or otherwise immediately threatens human life or public welfare, provided such hurricane, tornado, or other event results in:

(1) A declaration of an emergency by the President of the United States, the Governor of a State, or their authorized representatives having authority to declare emergencies; by the FMCSA Field Administrator for the geographical area in which the occurrence happens; or by other Federal, State or local government officials having authority to declare emergencies, or

(2) A request by a police officer for tow trucks to move wrecked or disabled motor vehicles.

*Emergency relief* means an operation in which a motor carrier or driver of a commercial motor vehicle is providing direct assistance to supplement State and local efforts and capabilities to save lives or property or to protect public health and safety as a result of an emergency as defined in this section.

*Employee* means any individual, other than an employer, who is employed by an employer and who in the course of his or her employment directly affects commercial motor vehicle safety. Such term includes a driver of a commercial motor vehicle (including an independent contractor while in the course of operating a commercial motor vehicle), a mechanic, and a freight handler. Such term does not include an employee of the United States, any State, any political subdivision of a State, or any agency established under a compact between States and approved by the Congress of the United States who is acting within the course of such employment.

*Employer* means any person engaged in a business affecting interstate commerce who owns or leases a commercial motor vehicle in connection with that business, or assigns employees to operate it, but such terms does not include the United States, any State, any political subdivision of a State, or an agency established under a compact between States approved by the Congress of the United States.

*Exempt intracity zone* means the geographic area of a municipality or the commercial zone of that municipality described in appendix F to subchapter B of this chapter. The term "exempt intracity zone" does not include any municipality or commercial zone in the State of Hawaii. For purposes of §391.62, a driver may be considered to operate a commercial motor vehicle wholly within an exempt intracity zone notwithstanding any common control, management, or arrangement for a continuous carriage or shipment to or from a point without such zone.

*Exempt motor carrier* means a person engaged in transportation exempt from economic regulation by the Federal Motor Carrier Safety Administration (FMCSA) under 49 U.S.C. 13506. "Exempt motor carriers" are subject to the safety regulations set forth in this subchapter.

*Farm vehicle driver* means a person who drives only a commercial motor vehicle that is—

(a) Controlled and operated by a farmer as a private motor carrier of property;

(b) Being used to transport either—

(1) Agricultural products, or

(2) Farm machinery, farm supplies, or both, to or from a farm;

(c) Not being used in the operation of a for-hire motor carrier;

(d) Not carrying hazardous materials of a type or quantity that requires the commercial motor vehicle to be placarded in accordance with §177.823 of this subtitle; and

(e) Being used within 150 air-miles of the farmer's farm.

*Farmer* means any person who operates a farm or is directly involved in the cultivation of land, crops, or livestock which—

(a) Are owned by that person; or

(b) Are under the direct control of that person.

*Fatality* means any injury which results in the death of a person at the time of the motor vehicle accident or within 30 days of the accident.

*Federal Motor Carrier Safety Administrator* means the chief executive of the Federal Motor Carrier Safety Administration, an agency within the Department of Transportation.

*For-hire motor carrier* means a person engaged in the transportation of goods or passengers for compensation.

*Gross combination weight rating (GCWR)* means the value specified by the manufacturer as the loaded weight of a combination (articulated) motor vehicle. In the absence of a value specified by the manufacturer, GCWR will be determined by adding the GVWR of the power unit and the total weight of the towed unit and any load thereon.

*Gross vehicle weight rating (GVWR)* means the value specified by the manufacturer as the loaded weight of a single motor vehicle.

*Hazardous material* means a substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated.

*Hazardous substance* means a material, and its mixtures or solutions, that is identified in the appendix to §172.101, List of Hazardous Substances and Reportable Quantities, of this title when offered for transportation in one package, or in one transport motor vehicle if not packaged, and when the quantity of the material therein equals or exceeds the reportable quantity (RQ). This definition does not apply to petroleum products that are lubricants or fuels, or to mixtures or solutions of hazardous substances if in a concentration less than that shown in the table in §171.8 of this title, based on the reportable quantity (RQ) specified for the materials listed in the appendix to §172.101.

*Hazardous waste* means any material that is subject to the hazardous waste manifest requirements of the EPA specified in 40 CFR part 262 or would be subject to these requirements absent an interim authorization to a State under 40 CFR part 123, subpart F.

*Highway* means any road, street, or way, whether on public or private property, open to public travel. "Open to public travel" means that the road section is available, except during scheduled periods, extreme weather or emergency conditions, passable by four-wheel standard passenger cars, and open to the general public for use without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight, or class of registration. Toll plazas of public toll roads are not considered restrictive gates.

*Interstate commerce* means trade, traffic, or transportation in the United States—

(1) Between a place in a State and a place outside of such State (including a place outside of the United States);

(2) Between two places in a State through another State or a place outside of the United States; or

(3) Between two places in a State as part of trade, traffic, or transportation originating or terminating outside the State or the United States.

*Intrastate commerce* means any trade, traffic, or transportation in any State which is not described in the term "interstate commerce."

*Medical examiner* means a person who is licensed, certified, and/or registered, in accordance with applicable State laws and regulations, to perform physical examinations. The term includes but is not limited to, doctors of medicine, doctors of osteopathy, physician assistants, advanced practice nurses, and doctors of chiropractic.

*Motor carrier* means a for-hire motor carrier or a private motor carrier. The term includes a motor carrier's agents, officers and representatives as well as employees responsible for hiring, supervising, training, assigning, or dispatching of drivers and employees concerned with the installation, inspection, and maintenance of motor vehicle equipment and/or accessories. For purposes of subchapter B, this definition includes the terms *employer*, and *exempt motor carrier*.

*Motor vehicle* means any vehicle, machine, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property, or any combination thereof determined by the Federal Motor Carrier Safety Administration, but does not include any vehicle, locomotive, or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed

overhead wire, furnishing local passenger transportation similar to street-railway service.

*Multiple-employer driver* means a driver, who in any period of 7 consecutive days, is employed or used as a driver by more than one motor carrier.

*Operating authority* means the registration required by 49 U.S.C. 13902, 49 CFR part 365, 49 CFR part 368, and 49 CFR 392.9a.

*Operator*—See driver.

*Other terms*—Any other term used in this subchapter is used in its commonly accepted meaning, except where such other term has been defined elsewhere in this subchapter. In that event, the definition therein given shall apply.

*Out-of-service order* means a declaration by an authorized enforcement officer of a Federal, State, Canadian, Mexican, or local jurisdiction that a driver, a commercial motor vehicle, or a motor carrier operation is out of service pursuant to 49 CFR 386.72, 392.5, 392.9a, 395.13, or 396.9, or compatible laws, or the North American Standard Out-of-Service Criteria.

*Person* means any individual, partnership, association, corporation, business trust, or any other organized group of individuals.

*Previous employer* means any DOT regulated person who employed the driver in the preceding 3 years, including any possible current employer.

*Principal place of business* means the single location designated by the motor carrier, normally its headquarters, for purposes of identification under this subchapter. The motor carrier must make records required by parts 382, 387, 390, 391, 395, 396, and 397 of this subchapter available for inspection at this location within 48 hours (Saturdays, Sundays, and Federal holidays excluded) after a request has been made by a special agent or authorized representative of the Federal Motor Carrier Safety Administration.

*Private motor carrier* means a person who provides transportation of property or passengers, by commercial motor vehicle, and is not a for-hire motor carrier.

*Private motor carrier of passengers (business)* means a private motor carrier engaged in the interstate transportation of passengers which is provided in the furtherance of a commercial enterprise and is not available to the public at large.

*Private motor carrier of passengers (nonbusiness)* means private motor carrier involved in the interstate transportation of passengers that does not otherwise meet the definition of a private motor carrier of passengers (business).

*Radar detector* means any device or mechanism to detect the emission of radio microwaves, laser beams or any other future speed measurement technology employed by enforcement personnel to measure the speed of commercial motor vehicles upon public roads and highways for enforcement purposes. Excluded from this definition are radar detection devices that meet both of the following requirements:

- (1) Transported outside the driver's compartment of the commercial motor vehicle. For this purpose, the *driver's* compartment of a passenger-carrying CMV shall include all space designed to accommodate both the driver and the passengers; and
- (2) Completely inaccessible to, inoperable by, and imperceptible to the driver while operating the commercial motor vehicle.

*Regional Director of Motor Carriers* means the Field Administrator, Federal Motor Carrier Safety Administration, for a given geographical area of the United States.

*Residential district* means the territory adjacent to and including a highway which is not a business district and for a distance of 300 feet or more along the highway is primarily improved with residences.

*School bus* means a passenger motor vehicle which is designed or used to carry more than 10 passengers in addition to the driver, and which the Secretary determines is likely to be significantly used for the purpose of transporting preprimary, primary, or secondary school students to such schools from home or from such schools to home.

*School bus operation* means the use of a school bus to transport only school children and/or school personnel from home to school and from school to home.

*Secretary* means the Secretary of Transportation.

*Single-employer driver* means a driver who, in any period of 7 consecutive days, is employed or used as a driver solely by a single motor carrier. This term includes a driver who operates a commercial motor vehicle on an intermittent, casual, or occasional basis.

*Special agent* See appendix B to subchapter B—Special agents.

*State* means a State of the United States and the District of Columbia and includes a political subdivision of a State.

*Trailer* includes:

(a) *Full trailer* means any motor vehicle other than a pole trailer which is designed to be drawn by another motor vehicle and so constructed that no part of its weight, except for the towing device, rests upon the self-propelled towing motor vehicle. A semitrailer equipped with an auxiliary front axle (converter dolly) shall be considered a full trailer.

(b) *Pole trailer* means any motor vehicle which is designed to be drawn by another motor vehicle and attached to the towing motor vehicle by means of a "reach" or "pole," or by being "boomed" or otherwise secured to the towing motor vehicle, for transporting long or irregularly shaped loads such as poles, pipes, or structural members, which generally are capable of sustaining themselves as beams between the supporting connections.

(c) *Semitrailer* means any motor vehicle, other than a pole trailer, which is designed to be drawn by another motor vehicle and is constructed so that some part of its weight rests upon the self-propelled towing motor vehicle.

*Truck* means any self-propelled commercial motor vehicle except a truck tractor, designed and/or used for the transportation of property.

*Truck tractor* means a self-propelled commercial motor vehicle designed and/or used primarily for drawing other vehicles.

*United States* means the 50 States and the District of Columbia.

[53 FR 18052, May 19, 1988]

**Editorial Note:** For Federal Register citations affecting §390.5, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

## § 390.7 Rules of construction.

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(a) In part 325 of subchapter A and in this subchapter, unless the context requires otherwise:

- (1) Words imparting the singular include the plural;
- (2) Words imparting the plural include the singular;
- (3) Words imparting the present tense include the future tense.

(b) In this subchapter the word—

- (1) *Officer* includes any person authorized by law to perform the duties of the office;
- (2) *Writing* includes printing and typewriting;
- (3) *Shall* is used in an imperative sense;
- (4) *Must* is used in an imperative sense;



(5) *Should* is used in a recommendatory sense;

(6) *May* is used in a permissive sense; and

(7) *Includes* is used as a word of inclusion, not limitation.

[53 FR 18052, May 19, 1988, as amended at 60 FR 38744, July 28, 1995]

## **Subpart B—General Requirements and Information**

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### **§ 390.9 State and local laws, effect on.**

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Except as otherwise specifically indicated, subchapter B of this chapter is not intended to preclude States or subdivisions thereof from establishing or enforcing State or local laws relating to safety, the compliance with which would not prevent full compliance with these regulations by the person subject thereto.

### **§ 390.11 Motor carrier to require observance of driver regulations.**

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Whenever in part 325 of subchapter A or in this subchapter a duty is prescribed for a driver or a prohibition is imposed upon the driver, it shall be the duty of the motor carrier to require observance of such duty or prohibition. If the motor carrier is a driver, the driver shall likewise be bound.

### **§ 390.13 Aiding or abetting violations.**

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No person shall aid, abet, encourage, or require a motor carrier or its employees to violate the rules of this chapter.

### **§ 390.15 Assistance in investigations and special studies.**

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(a) A motor carrier must make all records and information pertaining to an accident available to an authorized representative or special agent of the Federal Motor Carrier Safety Administration, an authorized State or local enforcement agency representative or authorized third party representative, upon request or as part of any investigation within such time as the request or investigation may specify. A motor carrier shall give an authorized representative all reasonable assistance in the investigation of any accident including providing a full, true and correct response to any question of the inquiry.

(b) For accidents that occur after April 29, 2003, motor carriers must maintain an accident register for three years after the date of each accident. For accidents that occurred on or prior to April 29, 2003, motor carriers must maintain an accident register for a period of one year after the date of each accident. Information placed in the accident register must contain at least the following:

(1) A list of accidents as defined at §390.5 of this chapter containing for each accident:

(i) Date of accident.

(ii) City or town, or most near, where the accident occurred and the State where the accident occurred.

(iii) Driver Name.

(iv) Number of injuries.

(v) Number of fatalities.

(vi) Whether hazardous materials, other than fuel spilled from the fuel tanks of motor vehicle involved in the accident, were released.

(2) Copies of all accident reports required by State or other governmental entities or insurers.

(Approved by the Office of Management and Budget under control number 2126-0009)

[69 FR 16719, Mar. 30, 2004]

**§ 390.16 [Reserved]**

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**§ 390.17 Additional equipment and accessories.**

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Nothing in this subchapter shall be construed to prohibit the use of additional equipment and accessories, not inconsistent with or prohibited by this subchapter, provided such equipment and accessories do not decrease the safety of operation of the commercial motor vehicles on which they are used.

[53 FR 18052, May 19, 1988, as amended at 60 FR 38744, July 28, 1995. Redesignated at 65 FR 35296, June 2, 2000]

**§ 390.19 Motor carrier identification report.**

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(a) Each motor carrier that conducts operations in interstate commerce (or intrastate commerce if the carrier requires a Safety Permit as per §385.400 of this chapter) must file a Motor Carrier Identification Report, Form MCS-150, or the Combined Motor Carrier Identification Report and HM Permit Application, Form MCS-150B for permitted carriers, at the following times:

(1) Before it begins operations; and

(2) Every 24 months, according to the following schedule:

USDOT Number ending in	Must file by last day of;
1.....	January
2.....	February
3.....	March
4.....	April
5.....	May
6.....	June
7.....	July
8.....	August

9..... September  
0..... October  
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(3) If the next-to-last digit of its USDOT number is odd, the motor carrier shall file its update in every odd-numbered calendar year. If the next-to-last digit of the USDOT number is even, the motor carrier shall file its update in every even-numbered calendar year.

(b) The Motor Carrier Identification Report, Form MCS-150, and the Combined Motor Carrier Identification Report and HM Permit Application, Form MCS-150B, with complete instructions, are available from the FMCSA Web site at: <http://www.fmcsa.dot.gov> (Keyword "MCS-150" or "MCS-150B"); from all FMCSA Service Centers and Division offices nationwide; or by calling 1-800-832-5660.

(c) The completed Motor Carrier Identification Report, Form MCS-150, or Combined Motor Carrier Identification Report and HM Permit Application, Form MCS-150B, must be filed with FMCSA Office of Information Management.

(1) The form may be filed electronically according to the instructions at the agency's web site, or it may be sent to Federal Motor Carrier Safety Administration, Data Analysis and Information Systems, MC-PSDRIS, 400 Seventh Street, SW, Washington, DC 20590.

(2) A for-hire motor carrier should submit the Form MCS-150, or Form MCS-150B, along with its application for operating authority (Form OP-1 or OP-2), to the appropriate address referenced on that form, or may submit it electronically or by mail separately to the address mentioned in this section.

(d) Only the legal name or a single trade name of the motor carrier may be used on the motor carrier identification report (Form MCS-150 or MCS-150B).

(e) A motor carrier that fails to file a Motor Carrier Identification Report, Form MCS-150, or the Combined Motor Carrier Identification Report and HM Permit Application, Form MCS-150B, or furnishes misleading information or makes false statements upon Form MCS-150 or Form MCS-150B, is subject to the penalties prescribed in 49 U.S.C. 521(b)(2)(B).

(f) Upon receipt and processing of the Motor Carrier Identification Report, Form MCS-150, or the Combined Motor Carrier Identification Report and HM Permit Application, Form MCS-150B, the FMCSA will issue the motor carrier an identification number (USDOT Number). The motor carrier must display the number on each self-propelled CMV, as defined in §390.5, along with the additional information required by §390.21.

(g) A motor carrier that registers its vehicles in a State that participates in the Performance and Registration Information Systems Management (PRISM) program (authorized under section 4004 of the Transportation Equity Act for the 21st Century [(Public Law 105-178, 112 Stat. 107)]) is exempt from the requirements of this section, provided it files all the

required information with the appropriate State office.

[Approved by the Office of Management and Budget under control number 2126–0013]

[65 FR 35296, June 2, 2000, as amended at 65 FR 70514, Nov. 24, 2000; 67 FR 9416, Mar. 1, 2002; 69 FR 39372, June 30, 2004]

**§ 390.21 Marking of CMVs.**

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(a) *General.* Every self-propelled CMV, as defined in §390.5, subject to subchapter B of this chapter must be marked as specified in paragraphs (b), (c), and (d) of this section.

(b) *Nature of marking.* The marking must display the following information:

(1) The legal name or a single trade name of the motor carrier operating the self-propelled CMV, as listed on the motor carrier identification report (Form MCS–150) and submitted in accordance with §390.19.

(2) The motor carrier identification number issued by the FMCSA, preceded by the letters “USDOT”.

(3) If the name of any person other than the operating carrier appears on the CMV, the name of the operating carrier must be followed by the information required by paragraphs (b)(1), and (2) of this section, and be preceded by the words “operated by.”

(4) Other identifying information may be displayed on the vehicle if it is not inconsistent with the information required by this paragraph.

(5) Each motor carrier shall meet the following requirements pertaining to its operation:

(i) All CMVs that are part of a motor carrier's existing fleet on July 3, 2000, and which are marked with an ICCMC number must come into compliance with paragraph (b)(2) of this section by July 3, 2002.

(ii) All CMVs that are part of a motor carrier's existing fleet on July 3, 2000, and which are not marked with the legal name or a single trade name on both sides of their CMVs, as shown on the Motor Carrier Identification Report, Form MCS–150, must come into compliance with paragraph (b)(1) of this section by July 5, 2005.

(iii) All CMVs added to a motor carrier's fleet on or after July 3, 2000, must meet the requirements of this section before being put into service and operating on public ways.

(c) *Size, shape, location, and color of marking.* The marking must—

- (1) Appear on both sides of the self-propelled CMV;
- (2) Be in letters that contrast sharply in color with the background on which the letters are placed;
- (3) Be readily legible, during daylight hours, from a distance of 50 feet (15.24 meters) while the CMV is stationary; and
- (4) Be kept and maintained in a manner that retains the legibility required by paragraph (c)(3) of this section.

(d) *Construction and durability.* The marking may be painted on the CMV or may consist of a removable device, if that device meets the identification and legibility requirements of paragraph (c) of this section, and such marking must be maintained as required by paragraph (c)(4) of this section.

(e) *Rented CMVs.* A motor carrier operating a self-propelled CMV under a rental agreement having a term not in excess of 30 calendar days meets the requirements of this section if:

(1) The CMV is marked in accordance with the provisions of paragraphs (b) through (d) of this section; or

(2) The CMV is marked as set forth in paragraph (e)(2)(i) through (iv) of this section:

(i) The legal name or a single trade name of the lessor is displayed in accordance with paragraphs (c) and (d) of this section.

(ii) The lessor's identification number preceded by the letters "USDOT" is displayed in accordance with paragraphs (c) and (d) of this section; and

(iii) The rental agreement entered into by the lessor and the renting motor carrier conspicuously contains the following information:

(A) The name and complete physical address of the principal place of business of the renting motor carrier;

(B) The identification number issued the renting motor carrier by the FMCSA, preceded by the letters "USDOT," if the motor carrier has been issued such a number. In lieu of the identification number required in this paragraph, the following may be shown in the rental agreement:

(1) Information which indicates whether the motor carrier is engaged in "interstate" or

“intrastate” commerce; and

(2) Information which indicates whether the renting motor carrier is transporting hazardous materials in the rented CMV;

(C) The sentence: “This lessor cooperates with all Federal, State, and local law enforcement officials nationwide to provide the identity of customers who operate this rental CMV”; and

(iv) The rental agreement entered into by the lessor and the renting motor carrier is carried on the rental CMV during the full term of the rental agreement. See the leasing regulations at 49 CFR 376 for information that should be included in all leasing documents.

(f) *Driveaway services.* In driveaway services, a removable device may be affixed on both sides or at the rear of a single driven vehicle. In a combination driveaway operation, the device may be affixed on both sides of any one unit or at the rear of the last unit. The removable device must display the legal name or a single trade name of the motor carrier and the motor carrier's USDOT number.

[65 FR 35296, June 2, 2000]

#### § 390.23 Relief from regulations.

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(a) Parts 390 through 399 of this chapter shall not apply to any motor carrier or driver operating a commercial motor vehicle to provide emergency relief during an emergency, subject to the following time limits:

(1) *Regional emergencies.* (i) The exemption provided by paragraph (a)(1) of this section is effective only when:

(A) An emergency has been declared by the President of the United States, the Governor of a State, or their authorized representatives having authority to declare emergencies; or

(B) The FMCSA Field Administrator has declared that a regional emergency exists which justifies an exemption from parts 390 through 399 of this chapter.

(ii) Except as provided in §390.25, this exemption shall not exceed the duration of the motor carrier's or driver's direct assistance in providing emergency relief, or 30 days from the date of the initial declaration of the emergency or the exemption from the regulations by the FMCSA Field Administrator, whichever is less.

(2) *Local emergencies.* (i) The exemption provided by paragraph (a)(2) of this section is effective only when:

(A) An emergency has been declared by a Federal, State or local government official having authority to declare an emergency; or

(B) The FMCSA Field Administrator has declared that a local emergency exists which justifies an exemption from parts 390 through 399 of this chapter.

(ii) This exemption shall not exceed the duration of the motor carrier's or driver's direct assistance in providing emergency relief, or 5 days from the date of the initial declaration of the emergency or the exemption from the regulations by the FMCSA Field Administrator, whichever is less.

(3) *Tow trucks responding to emergencies.* (i) The exemption provided by paragraph (a)(3) of this section is effective only when a request has been made by a Federal, State or local police officer for tow trucks to move wrecked or disabled motor vehicles.

(ii) This exemption shall not exceed the length of the motor carrier's or driver's direct assistance in providing emergency relief, or 24 hours from the time of the initial request for assistance by the Federal, State or local police officer, whichever is less.

(b) Upon termination of direct assistance to the regional or local emergency relief effort, the motor carrier or driver is subject to the requirements of parts 390 through 399 of this chapter, with the following exception: A driver may return empty to the motor carrier's terminal or the driver's normal work reporting location without complying with parts 390 through 399 of this chapter. However, a driver who informs the motor carrier that he or she needs immediate rest must be permitted at least 10 consecutive hours off duty before the driver is required to return to such terminal or location. Having returned to the terminal or other location, the driver must be relieved of all duty and responsibilities. Direct assistance terminates when a driver or commercial motor vehicle is used in interstate commerce to transport cargo not destined for the emergency relief effort, or when the motor carrier dispatches such driver or commercial motor vehicle to another location to begin operations in commerce.

(c) When the driver has been relieved of all duty and responsibilities upon termination of direct assistance to a regional or local emergency relief effort, no motor carrier shall permit or require any driver used by it to drive nor shall any such driver drive in commerce until:

(1) The driver has met the requirements of §§395.3(a) and 395.5(a) of this chapter; and

(2) The driver has had at least 34 consecutive hours off-duty when:

(i) The driver has been on duty for more than 60 hours in any 7 consecutive days at the time the driver is relieved of all duty if the employing motor carrier does not operate every day in the week, or

(ii) The driver has been on duty for more than 70 hours in any 8 consecutive days at the

time the driver is relieved of all duty if the employing motor carrier operates every day in the week.

[57 FR 33647, July 30, 1992, as amended at 60 FR 38744, July 28, 1995; 68 FR 22514, Apr. 28, 2003; 70 FR 50070, Aug. 25, 2005]

**§ 390.25 Extension of relief from regulations—emergencies.**

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The FMCSA Field Administrator may extend the 30-day time period of the exemption contained in §390.23(a)(1), but not the 5-day time period contained in §390.23(a)(2) or the 24-hour period contained in §390.23(a)(3). Any motor carrier or driver seeking to extend the 30-day limit shall obtain approval from the FMCSA Field Administrator in the region in which the motor carrier's principal place of business is located before the expiration of the 30-day period. The motor carrier or driver shall give full details of the additional relief requested. The FMCSA Field Administrator shall determine if such relief is necessary taking into account both the severity of the ongoing emergency and the nature of the relief services to be provided by the carrier or driver. If the FMCSA Field Administrator approves an extension of the exemption, he or she shall establish a new time limit and place on the motor carrier or driver any other restrictions deemed necessary.

[57 FR 33647, July 30, 1992]

**§ 390.27 Locations of motor carrier safety service centers.**

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Service center	Territory included	Location of office
Eastern.....	CT, DC, DE, MA, MD, ME, NJ, NH, NY, PA, PR, RI, VA, VT, Virgin Islands, WV.	City Crescent Building, #10 South Howard Street, Suite 4000, Baltimore, MD 21201-2819.
Midwestern.....	IA, IL, IN, KS, MI, MO, MN, NE, OH, WI.	19900 Governors Drive, Suite 210, Olympia Fields, IL 60461-1021.
Southern.....	AL, AR, FL, GA, KY, LA, MS, NC, NM, OK, SC, TN, TX.	61 Forsyth Street, SW, Suite 17T75, Atlanta, GA 30303-3104.
Western.....	American Samoa, AK, AZ, CA, CO, Guam, HI, ID, Mariana Islands, MT, ND, NV, OR, SD, UT, WA, WY.	201 Mission Street, Suite 2100, San Francisco, CA 94105-1838.



Note 1: Canadian carriers, for information regarding proper service center, contact a FMCSA division (State) office in AK, ME, MI, MT, NY, ND, VT, or WA.

Note 2: Mexican carriers, for information regarding proper service center, contact a FMCSA division (State) office in AZ, CA, NM, or TX.

[65 FR 35297, June 2, 2000, as amended at 67 FR 61824, Oct. 2, 2002; 67 FR 63019, Oct. 9, 2002]

**§ 390.29 Location of records or documents.**

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(a) A motor carrier with multiple offices or terminals may maintain the records and documents required by this subchapter at its principal place of business, a regional office, or driver work-reporting location unless otherwise specified in this subchapter.

(b) All records and documents required by this subchapter which are maintained at a regional office or driver work-reporting location shall be made available for inspection upon request by a special agent or authorized representative of the Federal Motor Carrier Safety Administration at the motor carrier's principal place of business or other location specified by the agent or representative within 48 hours after a request is made. Saturdays, Sundays, and Federal holidays are excluded from the computation of the 48-hour period of time.

[63 FR 33276, June 18, 1998]

**§ 390.31 Copies of records or documents.**

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(a) All records and documents required to be maintained under this subchapter must be preserved in their original form for the periods specified, unless the records and documents are suitably photographed and the microfilm is retained in lieu of the original record for the required retention period.

(b) To be acceptable in lieu of original records, photographic copies of records must meet the following minimum requirements:

(1) Photographic copies shall be no less readily accessible than the original record or document as normally filed or preserved would be and suitable means or facilities shall be available to locate, identify, read, and reproduce such photographic copies.

(2) Any significant characteristic, feature or other attribute of the original record or document, which photography in black and white will not preserve, shall be clearly indicated before the photograph is made.

(3) The reverse side of printed forms need not be copied if nothing has been added to the printed matter common to all such forms, but an identified specimen of each form shall be on the film for reference.

(4) Film used for photographing copies shall be of permanent record-type meeting in all respects the minimum specifications of the National Bureau of Standards, and all processes recommended by the manufacturer shall be observed to protect it from deterioration or accidental destruction.

(5) Each roll of film shall include a microfilm of a certificate or certificates stating that the photographs are direct or facsimile reproductions of the original records. Such certificate(s) shall be executed by a person or persons having personal knowledge of the material covered thereby.

(c) All records and documents required to be maintained under this subchapter may be destroyed after they have been suitably photographed for preservation.

(d) *Exception.* All records except those requiring a signature may be maintained through the use of computer technology provided the motor carrier can produce, upon demand, a computer printout of the required data.

**§ 390.33 Commercial motor vehicles used for purposes other than defined.**

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Whenever a commercial motor vehicle of one type is used to perform the functions normally performed by a commercial motor vehicle of another type, the requirements of this subchapter and part 325 of subchapter A shall apply to the commercial motor vehicle and to its operation in the same manner as though the commercial motor vehicle were actually a commercial motor vehicle of the latter type. *Example:* If a commercial motor vehicle other than a bus is used to perform the functions normally performed by a bus, the regulations pertaining to buses and to the transportation of passengers shall apply to that commercial motor vehicle.

[53 FR 18052, May 19, 1988, as amended at 60 FR 38744, July 28, 1995]

**§ 390.35 Certificates, reports, and records: Falsification, reproduction, or alteration.**

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No motor carrier, its agents, officers, representatives, or employees shall make or cause to make—

(a) A fraudulent or intentionally false statement on any application, certificate, report, or record required by part 325 of subchapter A or this subchapter;

(b) A fraudulent or intentionally false entry on any application, certificate, report, or record required to be used, completed, or retained, to comply with any requirement of this subchapter or part 325 of subchapter A; or

(c) A reproduction, for fraudulent purposes, of any application, certificate, report, or record required by this subchapter or part 325 of subchapter A.

**§ 390.37 Violation and penalty.**

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Any person who violates the rules set forth in this subchapter or part 325 of subchapter A may be subject to civil or criminal penalties.

**Subpart C [Reserved]**

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## **Title 49: Transportation**

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### **PART 391—QUALIFICATIONS OF DRIVERS AND LONGER COMBINATION VEHICLE (LCV) DRIVER INSTRUCTORS**

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**Authority:** 49 U.S.C. 322, 504, 508, 31133, 31136 and 31502; Sec. 4007(b) of Pub. L. 102–240 (105 Stat. 2152); Sec. 114, Pub. L. 103–311 (108 Stat. 1673, 1677); and 49 CFR 1.73.

**Source:** 35 FR 6460, Apr. 22, 1970, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 391 appear at 66 FR 49873, Oct. 1, 2001.

### **Subpart A—General**

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## § 391.1 Scope of the rules in this part; additional qualifications; duties of carrier-drivers.

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(a) The rules in this part establish minimum qualifications for persons who drive commercial motor vehicles as, for, or on behalf of motor carriers. The rules in this part also establish minimum duties of motor carriers with respect to the qualifications of their drivers.

(b) A motor carrier who employs himself/herself as a driver must comply with both the rules in this part that apply to motor carriers and the rules in this part that apply to drivers.

[35 FR 6460, Apr. 22, 1970, as amended at 53 FR 18057, May 19, 1988; 60 FR 38744, July 28, 1995]

## § 391.2 General exemptions.

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(a) *Farm custom operation.* The rules in this part do not apply to a driver who drives a commercial motor vehicle controlled and operated by a person engaged in custom-harvesting operations, if the commercial motor vehicle is used to—

(1) Transport farm machinery, supplies, or both, to or from a farm for custom-harvesting operations on a farm; or

(2) Transport custom-harvested crops to storage or market.

(b) *Apiarian industries.* The rules in this part do not apply to a driver who is operating a commercial motor vehicle controlled and operated by a beekeeper engaged in the seasonal transportation of bees.

(c) *Certain farm vehicle drivers.* The rules in this part do not apply to a farm vehicle driver except a farm vehicle driver who drives an articulated (combination) commercial motor vehicle, as defined in §390.5. (For limited exemptions for farm vehicle drivers of articulated commercial motor vehicles, see §391.67.)

[36 FR 24219, Dec. 22, 1971, as amended at 37 FR 26112, Dec. 8, 1972; 54 FR 12202, Mar. 24, 1989; 60 FR 38745, July 28, 1995; 61 FR 13346, Mar. 26, 1996; 61 FR 17253, Apr. 19, 1996]

## Subpart B—Qualification and Disqualification of Drivers

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### § 391.11 General qualifications of drivers.

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(a) A person shall not drive a commercial motor vehicle unless he/she is qualified to drive a commercial motor vehicle. Except as provided in §391.63, a motor carrier shall not require or permit a person to drive a commercial motor vehicle unless that person is qualified to drive a commercial motor vehicle.

(b) Except as provided in subpart G of this part, a person is qualified to drive a motor vehicle if he/she—

(1) Is at least 21 years old;

(2) Can read and speak the English language sufficiently to converse with the general public, to understand highway traffic signs and signals in the English language, to respond to official inquiries, and to make entries on reports and records;

(3) Can, by reason of experience, training, or both, safely operate the type of commercial motor vehicle he/she drives;

(4) Is physically qualified to drive a commercial motor vehicle in accordance with subpart E—Physical Qualifications and Examinations of this part;

(5) Has a currently valid commercial motor vehicle operator's license issued only by one State or jurisdiction;

(6) Has prepared and furnished the motor carrier that employs him/her with the list of violations or the certificate as required by §391.27;

(7) Is not disqualified to drive a commercial motor vehicle under the rules in §391.15; and

(8) Has successfully completed a driver's road test and has been issued a certificate of driver's road test in accordance with §391.31, or has presented an operator's license or a certificate of road test which the motor carrier that employs him/her has accepted as equivalent to a road test in accordance with §391.33.

[35 FR 6460, Apr. 22, 1970, as amended at 35 FR 17420, Nov. 13, 1970; 35 FR 19181, Dec. 18, 1970; 36 FR 222, Jan. 7, 1971, 36 FR 24220, Dec. 22, 1971; 45 FR 46424, July 10, 1980; 52 FR 20589, June 1, 1987; 59 FR 60323, Nov. 23, 1994; 60 FR 38744, 38745, July 28, 1995; 63 FR 33276, June 18, 1998]

### § 391.13 Responsibilities of drivers.

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In order to comply with the requirements of §392.9(a) and §393.9 of this subchapter, a motor carrier shall not require or permit a person to drive a commercial motor vehicle unless the person—

(a) Can, by reason of experience, training, or both, determine whether the cargo he/she transports (including baggage in a passenger-carrying commercial motor vehicle) has been properly located, distributed, and secured in or on the commercial motor vehicle he/she drives;

(b) Is familiar with methods and procedures for securing cargo in or on the commercial motor vehicle he/she drives.

[63 FR 33277, June 18, 1998]

### § 391.15 Disqualification of drivers.

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(a) *General.* A driver who is disqualified shall not drive a commercial motor vehicle. A motor carrier shall not require or permit a driver who is disqualified to drive a commercial motor vehicle.

(b) *Disqualification for loss of driving privileges.* (1) A driver is disqualified for the duration of the driver's loss of his/her privilege to operate a commercial motor vehicle on public highways, either temporarily or permanently, by reason of the revocation, suspension, withdrawal, or denial of an operator's license, permit, or privilege, until that operator's license, permit, or privilege is restored by the authority that revoked, suspended, withdrew, or denied it.

(2) A driver who receives a notice that his/her license, permit, or privilege to operate a commercial motor vehicle has been revoked, suspended, or withdrawn shall notify the motor carrier that employs him/her of the contents of the notice before the end of the business day following the day the driver received it.

(c) *Disqualification for criminal and other offenses—*(1) *General rule.* A driver who is convicted of (or forfeits bond or collateral upon a charge of) a disqualifying offense specified in paragraph (c)(2) of this section is disqualified for the period of time specified in paragraph (c)(3) of this section, if—

(i) The offense was committed during on-duty time as defined in §395.2(a) of this subchapter or as otherwise specified; and

(ii) The driver is employed by a motor carrier or is engaged in activities that are in furtherance of a commercial enterprise in interstate, intrastate, or foreign commerce;

(2) *Disqualifying offenses.* The following offenses are disqualifying offenses:

(i) Driving a commercial motor vehicle while under the influence of alcohol. This shall include:

(A) Driving a commercial motor vehicle while the person's alcohol concentration is 0.04 percent or more;

(B) Driving under the influence of alcohol, as prescribed by State law; or

(C) Refusal to undergo such testing as is required by any State or jurisdiction in the enforcement of §391.15(c)(2)(i) (A) or (B), or §392.5(a)(2).

(ii) Driving a commercial motor vehicle under the influence of a 21 CFR 1308.11 *Schedule I* identified controlled substance, an amphetamine, a narcotic drug, a formulation of an amphetamine, or a derivative of a narcotic drug;

(iii) Transportation, possession, or unlawful use of a 21 CFR 1308.11 *Schedule I* identified controlled substance, amphetamines, narcotic drugs, formulations of an amphetamine, or derivatives of narcotic drugs while the driver is on duty, as the term on-duty time is defined in §395.2 of this subchapter;

(iv) Leaving the scene of an accident while operating a commercial motor vehicle; or

(v) A felony involving the use of a commercial motor vehicle.

(3) *Duration of disqualification*—(i) *First offenders.* A driver is disqualified for 1 year after the date of conviction or forfeiture of bond or collateral if, during the 3 years preceding that date, the driver was not convicted of, or did not forfeit bond or collateral upon a charge of an offense that would disqualify the driver under the rules of this section. Exemption. The period of disqualification is 6 months if the conviction or forfeiture of bond or collateral solely concerned the transportation or possession of substances named in paragraph (c)(2)(iii) of this section.

(ii) *Subsequent offenders.* A driver is disqualified for 3 years after the date of his/her conviction or forfeiture of bond or collateral if, during the 3 years preceding that date, he/she was convicted of, or forfeited bond or collateral upon a charge of, an offense that would disqualify him/her under the rules in this section.

(d) *Disqualification for violation of out-of-service orders*—(1) *General rule.* A driver who is convicted of violating an out-of-service order is disqualified for the period of time specified in paragraph (d)(2) of this section.

(2) *Duration of disqualification for violation of out-of-service orders*—(i) *First violation.* A driver is disqualified for not less than 90 days nor more than one year if the driver is convicted of a first violation of an out-of-service order.

(ii) *Second violation.* A driver is disqualified for not less than one year nor more than five years if, during any 10-year period, the driver is convicted of two violations of out-of-service orders in separate incidents.

(iii) *Third or subsequent violation.* A driver is disqualified for not less than three years nor more than five years if, during any 10-year period, the driver is convicted of three or more violations of out-of-service orders in separate incidents.

(iv) *Special rule for hazardous materials and passenger offenses.* A driver is disqualified for a period of not less than 180 days nor more than two years if the driver is convicted of a first violation of an out-of-service order while transporting hazardous materials required to be placarded under the Hazardous Materials Transportation Act (49 U.S.C. 5101 *et seq.*), or while operating commercial motor vehicles designed to transport more than 15 passengers, including the driver. A driver is disqualified for a period of not less than three years nor more than five years if, during any 10-year period, the driver is convicted of any subsequent violations of out-of-service orders, in separate incidents, while transporting hazardous materials required to be placarded under the Hazardous Materials Transportation Act, or while operating commercial motor vehicles designed to transport more than 15 passengers, including the driver.

[37 FR 24902, Nov. 23, 1972, as amended at 49 FR 44215, Nov. 5, 1984; 51 FR 8200, Mar. 10, 1986; 53 FR 18057, May 19, 1988; 53 FR 39051, Oct. 4, 1988; 54 FR 40788, Oct. 3, 1989; 59 FR 26028, May 18, 1994; 60 FR 38744, 38745, July 28, 1995; 62 FR 37152, July 11, 1997; 63 FR 33277, June 18, 1998]

## Subpart C—Background and Character

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## § 391.21 Application for employment.

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(a) Except as provided in subpart G of this part, a person shall not drive a commercial motor vehicle unless he/she has completed and furnished the motor carrier that employs him/her with an application for employment that meets the requirements of paragraph (b) of this section.

(b) The application for employment shall be made on a form furnished by the motor carrier. Each application form must be completed by the applicant, must be signed by him/her, and must contain the following information:

(1) The name and address of the employing motor carrier;

(2) The applicant's name, address, date of birth, and social security number;

(3) The addresses at which the applicant has resided during the 3 years preceding the date on which the application is submitted;

(4) The date on which the application is submitted;

(5) The issuing State, number, and expiration date of each unexpired commercial motor vehicle operator's license or permit that has been issued to the applicant;

(6) The nature and extent of the applicant's experience in the operation of motor vehicles, including the type of equipment (such as buses, trucks, truck tractors, semitrailers, full trailers, and pole trailers) which he/she has operated;

(7) A list of all motor vehicle accidents in which the applicant was involved during the 3 years preceding the date the application is submitted, specifying the date and nature of each accident and any fatalities or personal injuries it caused;

(8) A list of all violations of motor vehicle laws or ordinances (other than violations involving only parking) of which the applicant was convicted or forfeited bond or collateral during the 3 years preceding the date the application is submitted;

(9) A statement setting forth in detail the facts and circumstances of any denial, revocation, or suspension of any license, permit, or privilege to operate a motor vehicle that has been issued to the applicant, or a statement that no such denial, revocation, or suspension has occurred;

(10)(i) A list of the names and addresses of the applicant's employers during the 3 years preceding the date the application is submitted,

(ii) The dates he or she was employed by that employer,

(iii) The reason for leaving the employ of that employer,

(iv) After October 29, 2004, whether the (A) Applicant was subject to the FMCSRs while employed by that previous employer,

(B) Job was designated as a safety sensitive function in any DOT regulated mode subject to alcohol and controlled substances testing requirements as required by 49 CFR part 40;

(11) For those drivers applying to operate a commercial motor vehicle as defined by Part 383 of this subchapter, a list of the names and addresses of the applicant's employers during the 7-year period preceding the 3 years contained in paragraph (b)(10) of this section for which the applicant was an operator of a commercial motor vehicle, together with the dates of employment and the reasons for leaving such employment; and

(12) The following certification and signature line, which must appear at the end of the application form and be signed by the applicant:



This certifies that this application was completed by me, and that all entries on it and information in it are true and complete to the best of my knowledge.

(Date) (Applicant's signature)

(c) A motor carrier may require an applicant to provide information in addition to the information required by paragraph (b) of this section on the application form.

(d) Before an application is submitted, the motor carrier must inform the applicant that the information he/she provides in accordance with paragraph (b)(10) of this section may be used, and the applicant's previous employers will be contacted, for the purpose of investigating the applicant's safety performance history information as required by paragraphs (d) and (e) of §391.23. The prospective employer must also notify the driver in writing of his/her due process rights as specified in §391.23(i) regarding information received as a result of these investigations.

[35 FR 6460, Apr. 22, 1970, as amended at 35 FR 17420, Nov. 13, 1970; 52 FR 20589, June 1, 1987; 60 FR 38744, July 28, 1995; 69 FR 16719, Mar. 30, 2004]

### § 391.23 Investigation and inquiries.

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(a) Except as provided in subpart G of this part, each motor carrier shall make the following investigations and inquiries with respect to each driver it employs, other than a person who has been a regularly employed driver of the motor carrier for a continuous period which began before January 1, 1971:

(1) An inquiry into the driver's driving record during the preceding 3 years to the appropriate agency of every State in which the driver held a motor vehicle operator's license or permit during those 3 years; and

(2) An investigation of the driver's safety performance history with Department of Transportation regulated employers during the preceding three years.

(b) A copy of the driver record(s) obtained in response to the inquiry or inquiries to each State driver record agency required by paragraph (a)(1) of this section must be placed in the driver qualification file within 30 days of the date the driver's employment begins and be retained in compliance with §391.51. If no driving record exists from the State or States, the motor carrier must document a good faith effort to obtain such information, and certify that no record exists for that driver in that State. The inquiry to the State driver record agencies must be made in the form and manner each agency prescribes.

(c)(1) Replies to the investigations of the driver's safety performance history required by paragraph (a)(2) of this section, or documentation of good faith efforts to obtain the investigation data, must be placed in the driver investigation history file, after October 29, 2004, within 30 days of the date the driver's employment begins. Any period of time required to exercise the driver's due process rights to review the information received, request a previous employer to correct or include a rebuttal, is separate and apart from this 30-day requirement to document investigation of the driver safety performance history data.

(2) The investigation may consist of personal interviews, telephone interviews, letters, or any other method for investigating that the carrier deems appropriate. Each motor carrier must make a written record with respect to each previous employer contacted, or good faith efforts to do so. The record must include the previous employer's name and address, the date the previous employer was contacted, or the attempts made, and the information received about the driver from the previous employer. Failures to contact a previous employer, or of them to provide the required safety performance history information, must be documented. The record must be maintained pursuant to §391.53.

(3) Prospective employers should report failures of previous employers to respond to an investigation to the FMCSA following procedures specified at §386.12 of this chapter and keep a copy of such reports in the Driver Investigation file as part of documenting a good faith effort to obtain the required information.

(4) *Exception.* For a drivers with no previous employment experience working for a DOT regulated employer during the preceding three years, documentation that no investigation was possible must be placed in the driver history investigation file, after October 29, 2004, within the required 30 days of the date the driver's employment begins.

(d) The prospective motor carrier must investigate, at a minimum, the information listed in this paragraph from all previous employers of the applicant that employed the driver to operate a CMV within the previous three years. The investigation request must contain specific contact information on where the previous motor carrier employers should send the information requested.

(1) General driver identification and employment verification information.

(2) The data elements as specified in §390.15(b)(1) of this chapter for accidents involving the driver that occurred in the three-year period preceding the date of the employment application.

(i) Any accidents as defined by §390.5 of this chapter.

(ii) Any accidents the previous employer may wish to provide that are retained pursuant to §390.15(b)(2), or pursuant to the employer's internal policies for retaining more detailed minor accident information.

(e) In addition to the investigations required by paragraph (d) of this section, the prospective motor carrier employers must investigate the information listed below in this paragraph from all previous DOT regulated employers that employed the driver within the previous three years from the date of the employment application, in a safety-sensitive function that required alcohol and controlled substance testing specified by 49 CFR part 40.

(1) Whether, within the previous three years, the driver had violated the alcohol and controlled substances prohibitions under subpart B of part 382 of this chapter, or 49 CFR part 40.

(2) Whether the driver failed to undertake or complete a rehabilitation program prescribed by a substance abuse professional (SAP) pursuant to §382.605 of this chapter, or 49 CFR part 40, subpart O. If the previous employer does not know this information (e.g., an employer that terminated an employee who tested positive on a drug test), the prospective motor carrier must obtain documentation of the driver's successful completion of the SAP's referral directly from the driver.

(3) For a driver who had successfully completed a SAP's rehabilitation referral, and remained in the employ of the referring employer, information on whether the driver had the following testing violations subsequent to completion of a §382.605 or 49 CFR part 40, subpart O referral:

(i) Alcohol tests with a result of 0.04 or higher alcohol concentration;

(ii) Verified positive drug tests;

(iii) Refusals to be tested (including verified adulterated or substituted drug test results).

(f) A prospective motor carrier employer must provide to the previous employer the driver's written consent meeting the requirements of §40.321(b) for the release of the information in paragraph (e) of this section. If the driver refuses to provide this written consent, the prospective motor carrier employer must not permit the driver to operate a commercial motor vehicle for that motor carrier.

(g) After October 29, 2004, previous employers must:

(1) Respond to each request for the DOT defined information in paragraphs (d) and (e) of this section within 30 days after the request is received. If there is no safety performance history information to report for that driver, previous motor carrier employers are nonetheless required to send a response confirming the non-existence of any such data, including the driver identification information and dates of employment.

(2) Take all precautions reasonably necessary to ensure the accuracy of the records.

(3) Provide specific contact information in case a driver chooses to contact the previous employer regarding correction or rebuttal of the data.

(4) Keep a record of each request and the response for one year, including the date, the party to whom it was released, and a summary identifying what was provided.

(5) *Exception.* Until May 1, 2006, carriers need only provide information for accidents that occurred after April 29, 2003.

(h) The release of information under this section may take any form that reasonably ensures confidentiality, including letter, facsimile, or e-mail. The previous employer and its agents and insurers must take all precautions reasonably necessary to protect the driver safety performance history records from disclosure to any person not directly involved in forwarding the records, except the previous employer's insurer, except that the previous employer may not provide any alcohol or controlled substances information to the previous employer's insurer.

(i)(1) The prospective employer must expressly notify drivers with Department of Transportation regulated employment during the preceding three years—via the application form or other written document prior to any hiring decision—that he or she has the following rights regarding the investigative information that will be provided to the prospective employer pursuant to paragraphs (d) and (e) of this section:

(i) The right to review information provided by previous employers;

(ii) The right to have errors in the information corrected by the previous employer and for that previous employer to re-send the corrected information to the prospective employer;

(iii) The right to have a rebuttal statement attached to the alleged erroneous information, if the previous employer and the driver cannot agree on the accuracy of the information.

(2) Drivers who have previous Department of Transportation regulated employment history in the preceding three years, and wish to review previous employer-provided investigative information must submit a written request to the prospective employer, which may be done at any time, including when applying, or as late as 30 days after being employed or being notified of denial of employment. The prospective employer must provide this information to the applicant within five (5) business days of receiving the written request. If the prospective employer has not yet received the requested information from the previous employer(s), then the five-business days deadline will begin when the prospective employer receives the requested safety performance history information. If the driver has not arranged to pick up or receive the requested records within thirty (30) days of the prospective employer making them available, the prospective motor carrier may consider the driver to have waived his/her request to review the records.

(j)(1) Drivers wishing to request correction of erroneous information in records received pursuant to paragraph (i) of this section must send the request for the correction to the previous employer that provided the records to the prospective employer.

(2) After October 29, 2004, the previous employer must either correct and forward the information to the prospective motor carrier employer, or notify the driver within 15 days of receiving a driver's request to correct the data that it does not agree to correct the data. If the previous employer corrects and forwards the data as requested, that employer must also retain the corrected information as part of the driver's safety performance history record and provide it to subsequent prospective employers when requests for this information are received. If the previous employer corrects the data and forwards it to the prospective motor carrier employer, there is no need to notify the driver.

(3) Drivers wishing to rebut information in records received pursuant to paragraph (i) of this section must send the rebuttal to the previous employer with instructions to include the rebuttal in that driver's safety performance history.

(4) After October 29, 2004, within five business days of receiving a rebuttal from a driver, the previous employer must:

(i) Forward a copy of the rebuttal to the prospective motor carrier employer;

(ii) Append the rebuttal to the driver's information in the carrier's appropriate file, to be included as part of the response for any subsequent investigating prospective employers for the duration of the three-year data retention requirement.

(5) The driver may submit a rebuttal initially without a request for correction, or subsequent to a request for correction.

(6) The driver may report failures of previous employers to correct information or include the driver's rebuttal as part of the safety performance information, to the FMCSA following procedures specified at §386.12.

(k)(1) The prospective motor carrier employer must use the information described in paragraphs (d) and (e) of this section only as part of deciding whether to hire the driver.

(2) The prospective motor carrier employer, its agents and insurers must take all precautions reasonably necessary to protect the records from disclosure to any person not directly involved in deciding whether to hire the driver. The prospective motor carrier employer may not provide any alcohol or controlled substances information to the prospective motor carrier employer's insurer.

(l)(1) No action or proceeding for defamation, invasion of privacy, or interference with a contract that is based on the furnishing or use of information in accordance with this section may be brought against—

(i) A motor carrier investigating the information, described in paragraphs (d) and (e) of this section, of an individual under consideration for employment as a commercial motor vehicle driver,

(ii) A person who has provided such information; or

(iii) The agents or insurers of a person described in paragraph (l)(1)(i) or (ii) of this section, except insurers are not granted a limitation on liability for any alcohol and controlled substance information.

(2) The protections in paragraph (l)(1) of this section do not apply to persons who knowingly furnish false information, or who are not in compliance with the procedures specified for these investigations.

(Approved by the Office of Management and Budget under control number 2126–0004)

[35 FR 6460, Apr. 22, 1970, as amended at 35 FR 17420, Nov. 13, 1970; 69 FR 16720, Mar. 30, 2004]

### **§ 391.25 Annual inquiry and review of driving record.**

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(a) Except as provided in subpart G of this part, each motor carrier shall, at least once every 12 months, make an inquiry into the driving record of each driver it employs, covering at least the preceding 12 months, to the appropriate agency of every State in which the driver held a commercial motor vehicle operator's license or permit during the time period.

(b) Except as provided in subpart G of this part, each motor carrier shall, at least once every 12 months, review the driving record of each driver it employs to determine whether that driver meets minimum requirements for safe driving or is disqualified to drive a commercial motor vehicle pursuant to §391.15.

(1) The motor carrier must consider any evidence that the driver has violated any applicable Federal Motor Carrier Safety Regulations in this subchapter or Hazardous Materials Regulations (49 CFR chapter I, subchapter C).

(2) The motor carrier must consider the driver's accident record and any evidence that the driver has violated laws governing the operation of motor vehicles, and must give great weight to violations, such as speeding, reckless driving, and operating while under the influence of alcohol or drugs, that indicate that the driver has exhibited a disregard for the safety of the public.

(c) Recordkeeping. (1) A copy of the response from each State agency to the inquiry required by paragraph (a) of this section shall be maintained in the driver's qualification file.

(2) A note, including the name of the person who performed the review of the driving record required by paragraph (b) of this section and the date of such review, shall be maintained in the driver's qualification file.

[63 FR 33277, June 18, 1998]

### **§ 391.27 Record of violations.**

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(a) Except as provided in subpart G of this part, each motor carrier shall, at least once every 12 months, require each driver it employs to prepare and furnish it with a list of all violations of motor vehicle traffic laws and ordinances (other than violations involving only parking) of which the driver has been convicted or on account of which he/she has forfeited bond or collateral during the preceding 12 months.

(b) Each driver shall furnish the list required in accordance with paragraph (a) of this section. If the driver has not been convicted of, or forfeited bond or collateral on account of, any violation which must be listed, he/she shall so certify.

(c) The form of the driver's list or certification shall be prescribed by the motor carrier. The following form may be used to comply with this section:

#### Driver's Certification

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

Date of conviction    Offense

Location    Type of motor vehicle operated

If no violations are listed above, I certify that I have not been convicted or forfeited bond or collateral on account of any violation required to be listed during the past 12 months.

(Date of certification) (Driver's signature)

(Motor carrier's name)

(Motor carrier's address)

(Reviewed by: Signature) (Title) \_\_\_\_\_

(d) The motor carrier shall retain the list or certificate required by this section, or a copy of it, in its files as part of the driver's qualification file.

(e) Drivers who have provided information required by §383.31 of this subchapter need not repeat that information in the annual list of violations required by this section.

[35 FR 6460, Apr. 22, 1970, as amended at 35 FR 17420, Nov. 13, 1970; 52 FR 20589, June 1, 1987; 60 FR 38745, July 28, 1995]

### Subpart D—Tests

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#### § 391.31 Road test.

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(a) Except as provided in subpart G, a person shall not drive a commercial motor vehicle unless he/she has first successfully completed a road test and has been issued a certificate of driver's road test in accordance with this section.

(b) The road test shall be given by the motor carrier or a person designated by it. However, a driver who is a motor carrier must be given the test by a person other than himself/herself. The test shall be given by a person who is competent to evaluate and determine whether the person who takes the test has demonstrated that he/she is capable of operating the commercial motor vehicle, and associated equipment, that the motor carrier intends to assign him/her.

(c) The road test must be of sufficient duration to enable the person who gives it to evaluate the skill of the person who takes it at handling the commercial motor vehicle, and associated equipment, that the motor carriers intends to assign to him/her. As a minimum, the person who takes the test must be tested, while operating the type of commercial motor vehicle the motor carrier intends to assign him/her, on his/her skill at performing each of the following operations:

(1) The pretrip inspection required by §392.7 of this subchapter;

(2) Coupling and uncoupling of combination units, if the equipment he/she may drive includes combination units;

(3) Placing the commercial motor vehicle in operation;

(4) Use of the commercial motor vehicle's controls and emergency equipment;

(5) Operating the commercial motor vehicle in traffic and while passing other motor vehicles;

(6) Turning the commercial motor vehicle;

(7) Braking, and slowing the commercial motor vehicle by means other than braking; and

(8) Backing and parking the commercial motor vehicle.

(d) The motor carrier shall provide a road test form on which the person who gives the test shall rate the performance of the person who takes it at each operation or activity which is a part of the test. After he/she completes the form, the person who gave the test shall sign it.

(e) If the road test is successfully completed, the person who gave it shall complete a certificate of driver's road test in substantially the form prescribed in paragraph (f) of this section.

(f) The form for the certificate of driver's road test is substantially as follows:

#### Certification of Road Test

Driver's name \_\_\_\_\_  
Social Security No \_\_\_\_\_  
Operator's or Chauffeur's License No \_\_\_\_\_  
State \_\_\_\_\_  
Type of power unit \_\_\_\_\_ Type of trailer(s) \_\_\_\_\_  
If passenger carrier, type of bus \_\_\_\_\_

This is to certify that the above-named driver was given a road test under my supervision on \_\_\_\_\_, 20\_\_, consisting of approximately \_\_\_ miles of driving.

It is my considered opinion that this driver possesses sufficient driving skill to operate safely the type of commercial motor vehicle listed above.

(Signature of examiner) (Title) \_\_\_\_\_ (Organization and address of examiner)

(g) A copy of the certificate required by paragraph (e) of this section shall be given to the person who was examined. The motor carrier shall retain in the driver qualification file of the person who was examined—

(1) The original of the signed road test form required by paragraph (d) of this section; and

(2) The original, or a copy of, the certificate required by paragraph (e) of this section.

[35 FR 6460, Apr. 22, 1970, as amended at 36 FR 223, Jan. 7, 1971; 59 FR 8752, Feb. 23, 1994; 60 FR 38744, July 28, 1995]

#### § 391.33 Equivalent of road test.

[↑ top](#)

(a) In place of, and as equivalent to, the road test required by §391.31, a person who seeks to drive a commercial motor vehicle may present, and a motor carrier may accept—

(1) A valid Commercial Driver's License as defined in §383.5 of this subchapter, but not including double/triple trailer or tank vehicle endorsements, which has been issued to him/her to operate specific categories of commercial motor vehicles and which, under the laws of that State, licenses him/her after successful completion of a road test in a commercial motor vehicle of the type the motor carrier intends to assign to him/her; or

(2) A copy of a valid certificate of driver's road test issued to him/her pursuant to §391.31 within the preceding 3 years.

(b) If a driver presents, and a motor carrier accepts, a license or certificate as equivalent to the road test, the motor carrier shall retain a legible copy of the license or certificate in its files as part of the driver's qualification file.

(c) A motor carrier may require any person who presents a license or certificate as equivalent to the road test to take a road test or any other test of his/her driving skill as a condition to his/her employment as a driver.

[35 FR 6460, Apr. 22, 1970, as amended at 60 FR 38744, July 28, 1995; 63 FR 33277, June 18, 1998]

## Subpart E—Physical Qualifications and Examinations

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### § 391.41 Physical qualifications for drivers.

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(a) A person shall not drive a commercial motor vehicle unless he/she is physically qualified to do so and, except as provided in §391.67, has on his/her person the original, or a photographic copy, of a medical examiner's certificate that he/she is physically qualified to drive a commercial motor vehicle.

The United States and Canada entered into a Reciprocity Agreement, effective March 30, 1999, recognizing that a Canadian commercial driver's license is proof of medical fitness to drive. Therefore, Canadian commercial motor vehicle (CMV) drivers are no longer required to have in their possession a medical examiner's certificate if the driver has been issued, and possesses, a valid commercial driver's license issued by a Canadian Province or Territory. However, Canadian drivers who are insulin-using diabetics, who have epilepsy, or who are hearing impaired as defined in §391.41(b)(11) are not qualified to drive CMVs in the United States. Furthermore, Canadian drivers who do not meet the medical fitness provisions of the Canadian National Safety Code for Motor Carriers but who have been issued a waiver by one of the Canadian Provinces or Territories are not qualified to drive CMVs in the United States.

(b) A person is physically qualified to drive a commercial motor vehicle if that person—

(1) Has no loss of a foot, a leg, a hand, or an arm, or has been granted a skill performance evaluation certificate pursuant to §391.49;

(2) Has no impairment of:

(i) A hand or finger which interferes with prehension or power grasping; or

(ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or has been granted a skill performance evaluation certificate pursuant to §391.49.

(3) Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control;

(4) Has no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis, or any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse, or congestive cardiac failure.

(5) Has no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with his/her ability to control and drive a commercial motor vehicle safely;

(6) Has no current clinical diagnosis of high blood pressure likely to interfere with his/her ability to operate a commercial motor vehicle safely;

(7) Has no established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neuromuscular, or vascular disease which interferes with his/her ability to control and operate a commercial motor vehicle safely;

(8) Has no established medical history or clinical diagnosis of epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a commercial motor vehicle;

(9) Has no mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with his/her ability to drive a commercial motor vehicle safely;

(10) Has distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses, distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70° in the horizontal Meridian in each eye, and the ability to recognize the colors of traffic signals and devices showing standard red, green, and amber;

(11) First perceives a forced whispered voice in the better ear at not less than 5 feet with or without the use of a hearing aid or, if tested by use of an audiometric device, does not have an average hearing loss in the better ear greater than 40 decibels at 500 Hz, 1,000 Hz, and 2,000 Hz with or without a hearing aid when the audiometric device is calibrated to American National Standard (formerly ASA Standard) Z24.5—1951.

(12)(i) Does not use a controlled substance identified in 21 CFR 1308.11 *Schedule I*, an amphetamine, a narcotic, or any other habit-forming drug.

(ii) *Exception.* A driver may use such a substance or drug, if the substance or drug is prescribed by a licensed medical practitioner who:

(A) Is familiar with the driver's medical history and assigned duties; and

(B) Has advised the driver that the prescribed substance or drug will not adversely affect the driver's ability to safely operate a commercial motor vehicle; and

(13) Has no current clinical diagnosis of alcoholism.

[35 FR 6460, Apr. 22, 1970, as amended at 35 FR 17420, Nov. 13, 1970; 36 FR 223, Jan. 7, 1971; 36 FR 12857, July 8, 1971; 43 FR 56900, Dec. 5, 1978; 55 FR 3554, Feb. 1, 1990; 60 FR 38744, July 28, 1995; 62 FR 37152, July 11, 1997; 65 FR 59369, Oct. 5, 2000; 67 FR 61824, Oct. 2, 2002]

### **§ 391.43 Medical examination; certificate of physical examination.**

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(a) Except as provided by paragraph (b) of this section, the medical examination shall be performed by a licensed medical examiner as defined in §390.5 of this subchapter.

(b) A licensed optometrist may perform so much of the medical examination as pertains to visual acuity, field of vision, and the ability to recognize colors as specified in paragraph (10) of §391.41(b).

(c) Medical examiners shall:



(1) Be knowledgeable of the specific physical and mental demands associated with operating a commercial motor vehicle and the requirements of this subpart, including the medical advisory criteria prepared by the FMCSA as guidelines to aid the medical examiner in making the qualification determination; and

(2) Be proficient in the use of and use the medical protocols necessary to adequately perform the medical examination required by this section.

(d) Any driver authorized to operate a commercial motor vehicle within an exempt intracity zone pursuant to §391.62 of this part shall furnish the examining medical examiner with a copy of the medical findings that led to the issuance of the first certificate of medical examination which allowed the driver to operate a commercial motor vehicle wholly within an exempt intracity zone.

(e) Any driver operating under a limited exemption authorized by §391.64 shall furnish the medical examiner with a copy of the annual medical findings of the endocrinologist, ophthalmologist or optometrist, as required under that section. If the medical examiner finds the driver qualified under the limited exemption in §391.64, such fact shall be noted on the Medical Examiner's Certificate.

(f) The medical examination shall be performed, and its results shall be recorded, substantially in accordance with the following instructions and examination form. Existing forms may be used until current printed supplies are depleted or until September 30, 2004, whichever occurs first.

### Instructions for Performing and Recording Physical Examinations

The medical examiner must be familiar with 49 CFR 391.41, Physical qualifications for drivers, and should review these instructions before performing the physical examination. Answer each question "yes" or "no" and record numerical readings where indicated on the physical examination form.

The medical examiner must be aware of the rigorous physical, mental, and emotional demands placed on the driver of a commercial motor vehicle. In the interest of public safety, the medical examiner is required to certify that the driver does not have any physical, mental, or organic condition that might affect the driver's ability to operate a commercial motor vehicle safely.

*General information.* The purpose of this history and physical examination is to detect the presence of physical, mental, or organic conditions of such a character and extent as to affect the driver's ability to operate a commercial motor vehicle safely. The examination should be conducted carefully and should at least include all of the information requested in the following form. History of certain conditions may be cause for rejection. Indicate the need for further testing and/or require evaluation by a specialist. Conditions may be recorded which do not, because of their character or degree, indicate that certification of physical fitness should be denied. However, these conditions should be discussed with the driver and he/she should be advised to take the necessary steps to insure correction, particularly of those conditions which, if neglected, might affect the driver's ability to drive safely.

*General appearance and development.* Note marked overweight. Note any postural defect, perceptible limp, tremor, or other conditions that might be caused by alcoholism, thyroid intoxication or other illnesses.

*Head-eyes.* When other than the Snellen chart is used, the results of such test must be expressed in values comparable to the standard Snellen test. If the driver wears corrective lenses for driving, these should be worn while driver's visual acuity is being tested. If contact lenses are worn, there should be sufficient evidence of good tolerance of and adaptation to their use. Indicate the driver's need to wear corrective lenses to meet the vision standard on the Medical Examiner's Certificate by checking the box, "Qualified only when wearing corrective lenses." In recording distance vision use 20 feet as normal. Report all vision as a fraction with 20 as the numerator and the smallest type read at 20 feet as the denominator. Monocular drivers are not qualified to operate commercial motor vehicles in interstate commerce.

*Ears.* Note evidence of any ear disease, symptoms of aural vertigo, or Meniere's Syndrome. When recording hearing, record distance from patient at which a forced whispered voice can first be heard. For the whispered voice test, the individual should be stationed at least 5 feet from the examiner with the ear being tested turned toward the examiner. The other ear is covered. Using the breath which remains after a normal expiration, the examiner whispers words or random numbers such as 66, 18, 23, etc. The examiner should not use only sibilants (s-sounding test materials). The opposite ear should be tested in the same manner. If the individual fails the whispered voice test, the audiometric test should be administered. For the audiometric test, record decibel loss at 500 Hz, 1,000 Hz, and 2,000 Hz. Average the decibel loss at 500 Hz, 1,000 Hz and 2,000 Hz and record as described on the form. If the individual fails the audiometric test and the whispered voice test has not been administered, the whispered voice test should be performed to determine if the standard applicable to that test can be met.

*Throat.* Note any irremediable deformities likely to interfere with breathing or swallowing.

*Heart.* Note murmurs and arrhythmias, and any history of an enlarged heart, congestive heart failure, or cardiovascular disease that is accompanied by syncope, dyspnea, or collapse. Indicate onset date, diagnosis, medication, and any current limitation. An electrocardiogram is required when findings so indicate.

*Blood pressure (BP).* If a driver has hypertension and/or is being medicated for hypertension, he or she should be recertified more frequently. An individual diagnosed with Stage 1 hypertension (BP is 140/90–159/99) may be certified for one year. At recertification, an individual with a BP equal to or less than 140/90 may be certified for one year; however, if his or her BP is greater than 140/90 but less than 160/100, a one-time certificate for 3 months can be issued. An individual diagnosed with Stage 2 (BP is 160/100–179/109) should be treated and a one-time certificate for 3-month certification can be issued. Once the driver has reduced his or her BP to equal to or less than 140/90, he or she may be recertified annually thereafter. An individual diagnosed with Stage 3 hypertension (BP equal to or greater than 180/110) should not be certified until his or her BP is reduced to 140/90 or less, and may be recertified every 6 months.

*Lungs.* Note abnormal chest wall expansion, respiratory rate, breath sounds including wheezes or alveolar rales, impaired respiratory function, dyspnea, or cyanosis. Abnormal finds on physical exam may require further testing such as pulmonary tests and/or x-ray of chest.

*Abdomen and Viscera.* Note enlarged liver, enlarged spleen, abnormal masses, bruits, hernia, and significant abdominal wall muscle weakness and tenderness. If the diagnosis suggests that the condition might interfere with the control and safe operation of a commercial motor vehicle, further testing and evaluation is required.

*Genital-urinary and rectal examination.* A urinalysis is required. Protein, blood or sugar in the urine may be an indication for further testing to rule out any underlying medical problems. Note hernias. A condition causing discomfort should be evaluated to determine the extent to which the condition might interfere with the control and safe operation of a commercial motor vehicle.

*Neurological.* Note impaired equilibrium, coordination, or speech pattern; paresthesia; asymmetric deep tendon reflexes; sensory or positional abnormalities; abnormal patellar and Babinski's reflexes; ataxia. Abnormal neurological responses may be an indication for further testing to rule out an underlying medical condition. Any neurological condition should be evaluated for the nature and severity of the condition, the degree of limitation present, the likelihood of progressive limitation, and the potential for sudden incapacitation. In instances where the medical examiner has determined that more frequent monitoring of a condition is appropriate, a certificate for a shorter period should be issued.

*Spine, musculoskeletal.* Previous surgery, deformities, limitation of motion, and tenderness should be noted. Findings may indicate additional testing and evaluation should be conducted.

*Extremities.* Carefully examine upper and lower extremities and note any loss or impairment of leg, foot, toe, arm, hand, or finger. Note any deformities, atrophy, paralysis, partial paralysis, clubbing, edema, or hypotonia. If a hand or finger deformity exists, determine whether prehension and power grasp are sufficient to enable the driver to maintain steering wheel grip and to control other vehicle equipment during routine and emergency driving operations. If a foot or leg deformity exists, determine whether sufficient mobility and strength exist to enable the driver to operate pedals properly. In the case of any loss or impairment to an extremity which may interfere with the driver's ability to operate a commercial motor vehicle safely, the medical examiner should state on the medical certificate "medically unqualified unless accompanied by a Skill Performance Evaluation Certificate." The driver must then apply to the Field Service Center of the FMCSA, for the State in which the driver has legal residence, for a Skill Performance Evaluation Certificate under §391.49.

*Laboratory and Other Testing.* Other test(s) may be indicated based upon the medical history or findings of the physical examination.

*Diabetes.* If insulin is necessary to control a diabetic driver's condition, the driver is not qualified to operate a commercial motor vehicle in interstate commerce. If mild diabetes is present and it is controlled by use of an oral hypoglycemic drug and/or diet and exercise, it should not be considered disqualifying. However, the driver must remain under adequate medical supervision.

Upon completion of the examination, the medical examiner must date and sign the form, provide his/her full name, office address and telephone number. The completed medical examination form shall be retained on file at the office of the medical examiner.

# Medical Examination Report FOR COMMERCIAL DRIVER FITNESS DETERMINATION

649-F (6045)

**1. DRIVERS INFORMATION** Driver completes this section

Driver's Name (Last, First, Middle) \_\_\_\_\_ Social Security No. \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_ Sex  M  F  Other

Address \_\_\_\_\_ City, State, Zip Code \_\_\_\_\_ Driver License No. \_\_\_\_\_ License Class  A  B  C  D  Other

Work Tel: ( ) \_\_\_\_\_ Date of Exam \_\_\_\_\_

Home Tel: ( ) \_\_\_\_\_

Age \_\_\_\_\_ Sex  M  F  Other

Driver License No. \_\_\_\_\_ License Class  A  B  C  D  Other

**2. HEALTH HISTORY** Driver completes this section, but medical examiner is encouraged to discuss with driver.

Yes No

Any illness or injury in the last 5 years?  Yes  No

Head/Brain injuries, disorders or illnesses  Yes  No

Seizures, epilepsy  medication \_\_\_\_\_

Eye disorders or impaired vision (except corrective lenses)  Yes  No

Ear disorders, loss of hearing or balance  Yes  No

Heart disease or heart attack, other cardiovascular condition  medication \_\_\_\_\_

Heart surgery (valve replacement/bypass, angioplasty, pacemaker)  Yes  No

High blood pressure  medication \_\_\_\_\_

Muscular disease  Yes  No

Shortness of breath  Yes  No

Lung disease, emphysema, asthma, chronic bronchitis  Yes  No

Kidney disease, dialysis  Yes  No

Liver disease  Yes  No

Digestive problems  Yes  No

Diabetes or elevated blood sugar controlled by:  Yes  No

diet \_\_\_\_\_

pills \_\_\_\_\_

insulin \_\_\_\_\_

Nervous or psychiatric disorders, e.g., severe depression  Yes  No

medication \_\_\_\_\_

Loss of, or altered consciousness  Yes  No

Fainting, dizziness  Yes  No

Sleep disorders, pauses in breathing while asleep, daytime sleepiness, and snoring  Yes  No

Stroke or paralysis  Yes  No

Muscle or impaired hand, arm, foot, leg, finger, toe  Yes  No

Spinal injury or disease  Yes  No

Chronic low back pain  Yes  No

Regular, frequent alcohol use  Yes  No

Narcotic or habit-forming drug use  Yes  No

For any YES answer, indicate onset date, diagnosis, treating physician's name and address, and any current limitation. List all medications (including over-the-counter medications) used regularly or recently

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I certify that the above information is complete and true. I understand that inaccurate, false or missing information may invalidate the examination and my Medical Examiner's Certificate.

\_\_\_\_\_  
Driver's Signature

\_\_\_\_\_  
Date

**Medical Examiner's Comments on Health History** (The medical examiner must review and discuss with the driver any "yes" answers and potential hazards of medications, including over-the-counter medications, while driving. This discussion must be documented below.)

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TESTING (Medical Examiner completes Section 3 through 7) Name: Last, First, Middle,

**3. VISION** Standard: At least 20/40 acuity (Snellen) in each eye with or without correction. At least 70 degrees peripheral in horizontal meridian measured in each eye. The use of corrective lenses should be noted on the Medical Examiner's Certificate.

INSTRUCTIONS: When other than the Snellen chart is used, give test results in Snellen-comparable values. In recording distance vision, use 20 feet as normal. Report visual acuity as a ratio with 20 as numerator and the smallest type read at 20 feet as denominator. If the applicant wears corrective lenses, those should be worn while visual acuity is being tested. If the driver habitually wears contact lenses, or intends to do so while driving, sufficient evidence of good tolerance and adaptation to their use must be obvious. **Monocular drivers are not qualified.**

**Numerical readings must be provided.**

ACUITY	UNCORRECTED	CORRECTED	HORIZONTAL FIELD OF VISION
Right Eye	20'	20'	Right Eye
Left Eye	20'	20'	Left Eye
Both Eyes	20'	20'	

Applicant can recognize and distinguish among traffic control signals and devices showing standard red, green, and amber colors?  Yes  No

Applicant meets visual acuity requirement only when wearing:  Corrective Lenses

Monocular Vision:  Yes  No

Complete next line only if vision testing is done by an ophthalmologist or optometrist

Date of Examination Name of Ophthalmologist or Optometrist (print) Tel. No. License No./ State of Issue Signature

**4. HEARING** Standard: a) Must first perceive forced whispered voice  $\geq$  5 ft. with or without hearing aid, or b) average hearing loss in better ear  $\leq$  40 dB

Check if hearing aid used for tests.  Check if hearing aid required to meet standard.

INSTRUCTIONS: To convert audiometric test results from ISO to ANSI, -14 dB from ISO for 500Hz, -10dB for 1,000 Hz, -8.5 dB for 2000 Hz. To average, add the readings for 3 frequencies tested and divide by 3.

**Numerical readings must be recorded.**

a) Record distance from individual at which forced whispered voice can first be heard

	Right ear	Left ear
1 Feet	1 Feet	1 Feet
b) If audiometer is used, record hearing loss in decibels, (acc. to ANSI Z24.5-1951)	500 Hz 1000 Hz 2000 Hz 500 Hz 1000 Hz 2000 Hz	Average: Average:

**5. BLOOD PRESSURE/PULSE RATE** Numerical readings must be recorded. Medical Examiner should take at least two readings to confirm BP.

Blood Pressure	Systolic	Diastolic	Reading	Category	Expiration Date	Recertification
Driver qualified if $\leq$ 140/90			140-159/90-99	Stage 1	1 year	1 year if $\leq$ 140/90. One-time certificate for 3 months if 141-159/91-99.
Pulse Rate: <input type="checkbox"/> Regular <input type="checkbox"/> Irregular			160-179/100-109	Stage 2	One-time certificate for 3 months.	1 year from date of exam if $\leq$ 140/90
(Record Pulse Rate: _____)			$>$ 180/110	Stage 3	6 months from date of exam if $<$ 140/90	6 months if $<$ 140/90

**6. LABORATORY AND OTHER TEST FINDINGS** Numerical readings must be recorded

URINE SPECIMEN	SP. GR.	PROTEIN	BLOOD	SUGAR

Urinalysis is required. Protein, blood or sugar in the urine may be an indication for further testing to rule out any underlying medical problem. Other Testing (Describe and record)

7. **PHYSICAL EXAMINATION** Height: \_\_\_\_\_ (in.) Weight: \_\_\_\_\_ (lbs.) Name: Last, \_\_\_\_\_ First, \_\_\_\_\_ Middle, \_\_\_\_\_

The presence of a certain condition may not necessarily disqualify a driver, particularly if the condition is controlled adequately, is not likely to worsen or is readily amenable to treatment. Even if a condition does not disqualify a driver, the medical examiner may consider deferring the driver temporarily. Also, the driver should be advised to take the necessary steps to correct the condition as soon as possible particularly if the condition, if neglected, could result in more serious illness that might affect driving.

Check YES if there are any abnormalities. Check NO if the body system is normal. Discuss any YES answers in detail in the space below, and indicate whether it would affect the driver's ability to operate a commercial motor vehicle safely. Enter applicable item number before each comment. If organic disease is present, note that it has been compensated for. See [Instructions to the Medical Examiner](#) for guidance.

BODY SYSTEM	CHECK FOR:	YES*	NO	BODY SYSTEM	CHECK FOR:	YES*	NO
1. General Appearance	Marked overweight, tremor, signs of alcoholism, problem drinking, or drug abuse.	<input type="checkbox"/>	<input type="checkbox"/>	7. Abdomen and Viscera	Enlarged liver, enlarged spleen, masses, bruits, hernia, significant abdominal wall muscle weakness.	<input type="checkbox"/>	<input type="checkbox"/>
2. Eyes	Pupillary equality, reaction to light, accommodation, ocular motility, ocular muscle imbalance, extracocular movement, nystagmus, exophthalmos. Ask about retinopathy, cataracts, aphakia, glaucoma, macular degeneration and refer to a specialist if appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	8. Vascular System	Abnormal pulse and amplitude, carotid or arterial bruits, varicose veins.	<input type="checkbox"/>	<input type="checkbox"/>
3. Ears	Scarring of tympanic membrane, occlusion of external canal, perforated eardrums.	<input type="checkbox"/>	<input type="checkbox"/>	9. Genito-urinary System	Hernias.	<input type="checkbox"/>	<input type="checkbox"/>
4. Mouth and Throat	Irreducible deformities likely to interfere with breathing or swallowing.	<input type="checkbox"/>	<input type="checkbox"/>	10. Extremities- Lumb	Loss or impairment of leg, foot, toe, arm, hand, finger. Perceptible limp, deformities, atrophy, weakness, paralysis, clubbing, edema, hypotonia. Insufficient grasp and prehension in upper limb to maintain steering wheel grip. Insufficient mobility and strength in lower limb to operate pedals properly.	<input type="checkbox"/>	<input type="checkbox"/>
5. Heart	Murmurs, extra sounds, enlarged heart, pacemaker, implantable defibrillator.	<input type="checkbox"/>	<input type="checkbox"/>	11. Spine, other musculoskeletal	Previous surgery, deformities, limitation of motion, tenderness.	<input type="checkbox"/>	<input type="checkbox"/>
6. Lungs and chest, not including breast examination	Abnormal chest wall expansion, abnormal respiratory rate, abnormal breath sounds including wheezes or elevated rates, impaired respiratory function, cyanosis. Abnormal findings on physical exam may require further testing such as pulmonary tests and/ or xray of chest.	<input type="checkbox"/>	<input type="checkbox"/>	12. Neurological	Impaired equilibrium, coordination or speech pattern; asymmetric deep tendon reflexes, sensory or positional abnormalities, abnormal patellar and Babinski's reflexes, ataxia.	<input type="checkbox"/>	<input type="checkbox"/>

\*COMMENTS:

Note certification status here. See [Instructions to the Medical Examiner](#) for guidance.

- Meets standards in 49 CFR 391.41; qualifies for 2 year certificate
- Does not meet standards
- Meets standards, but periodic monitoring required due to  
Driver qualified only for  3 months  6 months  1 year  Other

Temporarily disqualified due to (condition or medication): \_\_\_\_\_

Return to medical examiner's office for follow up on \_\_\_\_\_

- Wearing corrective lense
- Wearing hearing aid
- Accompanied by a \_\_\_\_\_ waiver/ exemption. Driver must present exemption at time of certification.
- Skill Performance Evaluation (SPE) Certificate
- Driving within an exempt infracty zone (See 49 CFR 391.62)
- Qualified by operation of 49 CFR 391.64

Medical Examiner's signature \_\_\_\_\_

Medical Examiner's name \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

If meets standards, complete a **Medical Examiner's Certificate as stated in 49 CFR 391.42(h)**. (Driver must carry certificate when operating a commercial vehicle.)

## 49 CFR 391.41 Physical Qualifications for Drivers

### THE DRIVER'S ROLE

Responsibilities, work schedules, physical and emotional demands, and lifestyles among commercial drivers vary by the type of driving that they do. Some of the main types of drivers include the following: turn around or short relay (drivers return to their home base each evening); long relay (drivers drive 9-11 hours and then have at least a 10-hour off-duty period); straight through haul (cross country drivers); and team drivers (drivers share the driving by alternating their 5-hour driving periods and 5-hour rest periods.)

The following factors may be involved in a driver's performance of duties: abrupt schedule changes and rotating work schedules, which may result in irregular sleep patterns and a driver beginning a trip in a fatigued condition; long hours; extended time away from family and friends, which may result in lack of social support; tight pickup and delivery schedules, with irregularity in work, rest, and eating patterns; adverse road, weather and traffic conditions, which may cause delays and lead to hurriedly loading or unloading cargo in order to compensate for the lost time, and environmental conditions such as excessive vibration, noise, and extremes in temperature. Transporting passengers or hazardous materials may add to the demands on the commercial driver.

There may be duties in addition to the driving task for which a driver is responsible and needs to be fit. Some of these responsibilities are: coupling and uncoupling trailer(s) from the tractor, loading and unloading trailer(s) (sometimes a driver may lift a heavy load or unload as much as 50,000 lbs. of freight after sitting for a long period of time without any stretching period); inspecting the operating condition of tractor and/or trailer(s) before, during and after delivery of cargo; lifting, installing, and removing heavy tire chains; and, lifting heavy tarpaulins to cover open top trailers. The above tasks demand agility, the ability to bend and stoop, the ability to maintain a crouching position to inspect the underside of the vehicle, frequent entering and exiting of the cab, and the ability to climb ladders on the tractor and/or trailer(s).

In addition, a driver must have the perceptual skills to monitor a sometimes complex driving situation, the judgment skills to make quick decisions, when necessary, and the manipulative skills to control an oversize steering wheel, shift gears using a manual transmission, and maneuver a vehicle in crowded areas.

### §391.45 PHYSICAL QUALIFICATIONS FOR DRIVERS

(a) A person shall not drive a commercial motor vehicle unless he is physically qualified to do so and, except as provided in §391.67, has on his person the original, or a photographic copy, of a medical examiner's certificate that he is physically qualified to drive a commercial motor vehicle.

(b) A person is physically qualified to drive a motor vehicle if that person:

(1) Has no loss of a foot, a leg, a hand, or an arm, or has been granted a Skill Performance Evaluation (SPE) Certificate (formerly Limb Waiver Program) pursuant to §391.49.

(2) Has no impairment of: (i) A hand or finger which interferes with prehension or power grasping; or (ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or has been granted a SPE Certificate pursuant to §391.49.

(3) Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control; (4) Has no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis, or any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse, or congestive cardiac failure.

(5) Has no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with his ability to control and drive a commercial motor vehicle safely.

(6) Has no current clinical diagnosis of high blood pressure likely to interfere with his ability to operate a commercial motor vehicle safely.

(7) Has no established medical history or clinical diagnosis of meumatic, anfric, orthopedic, muscular, neuromuscular, or vascular disease which interferes with his ability to control and operate a commercial motor vehicle safely.

(8) Has no established medical history or clinical diagnosis of epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a commercial motor vehicle;

(9) Has no mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with his ability to drive a commercial motor vehicle safely;

(10) Has distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses; distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses; field of vision of at least 70 degrees in the horizontal meridian in each eye, and the ability to recognize the colors of traffic signals and devices showing standard red, green and amber.

(11) First perceives a forced whispered voice in the better ear not less than 5 feet with or without the use of a hearing aid, or, if tested by use of an audiometric device, does not have an average hearing loss in the better ear greater than 40 decibels at 500 Hz, 1,000 Hz and 2,000 Hz with or without a hearing device when the audiometric device is calibrated to the American National Standard (formerly ASA Standard) Z24.5-1951;

(12) (i) Does not use a controlled substance identified in 21 CFR 1308.11, Schedule I, an amphetamine, a narcotic, or any other habit-forming drug; (ii) Exception: A driver may use such a substance or drug, if the substance or drug is prescribed by a licensed medical practitioner who: (A) Is familiar with the driver's medical history and assigned duties; and (B) Has advised the driver that the prescribed substance or drug will not adversely affect the driver's ability to safely operate a commercial motor vehicle; and (13) Has no current clinical diagnosis of alcoholism.

# INSTRUCTIONS TO THE MEDICAL EXAMINER

## General Information

The purpose of this examination is to determine a driver's physical qualification to operate a commercial motor vehicle (CMV) in interstate commerce according to the requirements in 49 CFR 391.41-49. Therefore, the medical examiner must be knowledgeable of these requirements and guidelines developed by the FMCSA to assist the medical examiner in making the qualification determination. The medical examiner should be familiar with the driver's responsibilities and work environment and is referred to the section on the form, **The Driver's Role**.

In addition to reviewing the **Health History** section with the driver and conducting the physical examination, the medical examiner should discuss common prescriptions and over-the-counter medications relative to the side effects and hazards of these medications while driving. Educate the driver to read warning labels on all medications. History of certain conditions may be cause for rejection, particularly if required by regulation, or may indicate the need for additional laboratory tests or more stringent examination perhaps by a medical specialist. These decisions are usually made by the medical examiner in light of the driver's job responsibilities, work schedule and potential for the conditions to render the driver unsafe.

Medical conditions should be recorded even if they are not cause for denial, and they should be discussed with the driver to encourage appropriate remedial care. This advice is especially needed when a condition, if neglected, could develop into a serious illness that could affect driving.

If the medical examiner determines that the driver is fit to drive and is also able to perform non-driving responsibilities as may be required, the medical examiner signs the medical certificate which the driver must carry with his/her license. The certificate must be dated. **Under current regulations, the certificate is valid for two years, unless the driver has a medical condition that does not prohibit driving but does require more frequent monitoring.** In such situations, the medical certificate should be issued for a shorter length of time. The physical examination should be done carefully and at least as complete as is indicated by the attached form. Contact the FMCSA at (202) 366-1790 for further information (a vision exemption, qualifying drivers under 49 CFR 391.64, etc.).

## Interpretation of Medical Standards

Since the issuance of the regulations for physical qualifications of commercial drivers, the Federal Motor Carrier Safety Administration (FMCSA) has published recommendations called Advisory Criteria to help medical examiners in determining whether a driver meets the physical qualifications for commercial driving. These recommendations have been condensed to provide information to medical examiners that (1) is directly relevant to the physical examination and (2) is not already included in the medical examination form. The specific regulation is printed in italics and is referenced by section in highlights.

## Federal Motor Carrier Safety Regulations

-Advisory Criteria-

### Loss of Limb:

**§91.41(b)(1)**  
A person is physically qualified to drive a commercial motor vehicle if that person:  
Has no loss of a foot, leg, hand or an arm; or has been granted a Skill Performance Evaluation (SPE) Certificate pursuant to Section 391.49.

### Limb Impairment:

**§91.41(b)(2)**  
A person is physically qualified to drive a commercial motor vehicle if that person:  
Has no impairment of: (i) A hand or finger which interferes with prehension or power grasping; or (ii) An arm, foot, or leg which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or (iii) Any other significant limb defect or limitation which interferes with the ability to perform normal tasks associated with operating a commercial motor vehicle; or (iv) Has been granted a Skill Performance Evaluation (SPE) Certificate pursuant to Section 391.49.  
A person who suffers loss of a foot, leg, hand or arm or whose limb impairment in any way interferes with the safe performance of normal tasks associated with operating a commercial motor vehicle is subject to the Skill Performance Evaluation Certification Program pursuant to section 391.49, assuming the person is otherwise qualified.

With the advancement of technology, medical aids and equipment modifications have been developed to compensate for certain disabilities. The SPE Certification Program (formerly the Limb Waiver Program) was designed to allow persons with the loss of a foot or limb or with functional impairments to qualify under the Federal Motor Carrier Safety Regulations (FMCSRs) by use of prosthetic devices or equipment modifications which enable them to safely operate a commercial motor vehicle. Since there are no medical aids equivalent to the original body or limb, certain risks are still present, and thus restrictions may be included on individual SPE certificates when a State Director for the FMCSA determines they are necessary to be consistent with safety and public interest.

If the driver is found otherwise medically qualified (391.41(b)(3)), the medical examiner must check on the medical certificate that the driver is qualified only if accompanied by a SPE certificate. The driver and the employing motor carrier are subject to appropriate penalty if the driver operates a motor vehicle in interstate or foreign commerce without a current SPE certificate for his/her physical disability.

### Diabetes

**§91.41(b)(3)**  
A person is physically qualified to drive a commercial motor vehicle if that person:  
Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control.

Diabetes mellitus is a disease which, on occasion, can result in a loss of consciousness or disorientation in time and space. Individuals who require insulin for control have conditions which can get out of control by the use of too much or too little insulin, or food intake not consistent with the insulin dosage. Insipidation may occur from symptoms of hypoglycemic or hypoglycemic reactions (drowsiness, semiconsciousness, diabetic coma or insulin shock).

The administration of insulin is, within itself, a complicated process requiring insulin, syringe, needle, alcohol sponges and a sterile technique. Factors related to long haul commercial motor vehicle operations, such as fatigue, lack of sleep, poor diet, emotional conditions, stress, and concomitant illness, compound the dangers. The FMCSA has consistently held that a diabetic who uses insulin for control does not meet the minimum physical requirements of the FMCSRs.

Hypoglycemic drugs, taken orally, are sometimes prescribed for diabetic individuals to help stimulate natural body production of insulin. If the condition can be controlled by the use of oral medication and diet, then an individual may be qualified under the present rule. CMV drivers who do not meet the Federal diabetes standard may call (202) 366-1790 for an application for a diabetes exemption.

(See Conference Report on Diabetic Disorders and Commercial Drivers and Insulin-Using Commercial Motor Vehicle Drivers at <http://www.fmcsa.dot.gov/rulesregs/rm2003.htm>)

### Cardiovascular Condition

**§91.41(b)(4)**

**A person is physically qualified to drive a commercial motor vehicle if that person:**

Has no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis or any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse or congestive cardiac failure.

The term "has no current clinical diagnosis of" is specifically designed to encompass: "a clinical diagnosis of" (1) a current cardiovascular condition, or (2) a cardiovascular condition which has not fully stabilized regardless of the time limit. The term "known to be



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accompanied by" is designed to include a clinical diagnosis of a cardiovascular disease (1), which is accompanied by symptoms of syncope, dyspnea, collapse or congestive cardiac failure, and/or (2) which is likely to cause syncope, dyspnea, collapse or congestive cardiac failure.

It is the intent of the FMCSAs to render unqualified a driver who has a current cardiovascular disease which is accompanied by and/or likely to cause symptoms of syncope, dyspnea, collapse, or congestive cardiac failure. However, the subjective decision of whether the nature and severity of an individual's condition will likely cause symptoms of cardiovascular insufficiency is on an individual basis and qualification rests with the medical examiner and the motor carrier. In those cases where there is an occurrence of cardiovascular insufficiency (myocardial infarction, thrombosis, etc.), it is suggested before a driver is certified that he or she have a normal resting and stress electrocardiogram (ECG), no residual complications and no physical limitations, and is taking no medication likely to interfere with safe driving.

Coronary artery bypass surgery and pacemaker implantation are remedial procedures and thus, not disqualifying. Implantable cardioverter defibrillators are disqualifying due to risk of syncope. Coumadin is a medical treatment which can improve the health and safety of the driver and should not, by its use, medically disqualify the commercial driver. The emphasis should be on the underlying medical conditions which require treatment and the general health of the driver. The FMCSA should be contacted at (202) 366-1790 for additional recommendations regarding the physical qualification of drivers on coumadin.

(See Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

#### **Respiratory Dysfunction**

##### **§391.41(b)(5)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of a respiratory dysfunction likely to interfere with ability to control and drive a commercial motor vehicle safely.

Since a driver must be alert at all times, any change in his or her mental state is in direct conflict with highway safety. Even the slightest impairment in respiratory function under emergency conditions (when greater oxygen supply is necessary for performance) may be detrimental to safe driving.

There are many conditions that interfere with oxygen exchange and may result in incapacitation, including emphysema, chronic asthma, carcinoma, tuberculosis, chronic bronchitis and sleep apnea. If the medical examiner detects a respiratory dysfunction, that in any way is likely to interfere with the driver's ability to safely control and drive a commercial motor vehicle, the driver must be referred to a specialist for further evaluation and therapy. Anticoagulation therapy for deep vein thrombosis and/or pulmonary thromboembolism is not unqualifying once optimum dose is achieved, provided lower extremity venous examinations remain normal and the treating physician gives a favorable recommendation.

(See Conference on Pulmonary/Respiratory Disorders and Commercial Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

#### **Hypertension**

##### **§391.41(b)(6)**

A person is physically qualified to drive a commercial motor vehicle if that person:  
Has no current clinical diagnosis of high blood pressure likely to interfere with ability to operate a commercial motor vehicle safely.

Hypertension alone is unlikely to cause sudden collapse; however, the likelihood increases when target organ damage, particularly cerebral vascular disease, is present. This regulatory criteria is based on FMCSA's Cardiovascular Advisory Guidelines for the Examination of CMV Drivers, which used the Sixth Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (1997).

Stage 1 hypertension corresponds to a systolic BP of 140-159 mmHg and/or a diastolic BP of 90-99 mmHg. The driver with a BP in this range is at low risk for hypertension-related acute incapacitation and may be medically certified to drive for a one-year period. Certification examinations should be done annually thereafter and should be at or less than 140/90. If less than 180/110, certification may be extended one time for 3 months.

A blood pressure of 160-179 systolic and/or 100-109 diastolic is considered Stage 2 hypertension, and the driver is not necessarily unqualified during evaluation and institution of treatment. The driver is given a one time certification of three months to reduce his or her blood pressure to less than or equal to 140/90. A blood pressure in this range is an absolute indication for antihypertensive drug therapy. Provided treatment is well tolerated and the driver demonstrates a BP value of 140/90 or less, he or she may be certified for one year from date of the initial exam. The driver is certified annually thereafter.

A blood pressure at or greater than 180 (systolic) and 110 (diastolic) is considered Stage 3, high risk for an acute BP-related event. The driver may not be qualified, even temporarily, until reduced to 140/90 or less and treatment is well tolerated. The driver may be certified for 6 months and biannually (every 6 months) thereafter if at recheck BP is 140/90 or less.

Annual recertification is recommended if the medical examiner does not know the severity of hypertension prior to treatment.

An elevated blood pressure finding should be confirmed by at least two subsequent measurements on different days.

Treatment includes nonpharmacologic and pharmacologic modalities as well as counseling to reduce other risk factors. Most antihypertensive medications also have side effects, the importance of which must be judged on an individual basis. Individuals must be alerted to the hazards of these medications while driving. Side effects of somnolence or syncope are particularly undesirable in commercial drivers.

Secondary hypertension is based on the above stages. Evaluation is warranted if patient is persistently hypertensive

on maximal or near-maximal doses of 2-3 pharmacologic agents. Some causes of secondary hypertension may be amenable to surgical intervention or specific pharmacologic disease (See Cardiovascular Advisory Panel Guidelines for the Medical Examination of Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

#### **Rheumatic, Arthritic, Orthopedic, Muscular, Neurovascular, or Vascular Disease §391.41(b)(7)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neurovascular or vascular disease which interferes with the ability to control and operate a commercial motor vehicle safely.

Certain diseases are known to have acute episodes of transient muscle weakness, poor muscular coordination (ataxia), abnormal sensations (paresthesia), decreased muscular tone (hypotonia), visual disturbances and pain which may be suddenly incapacitating. With each recurring episode, these symptoms may become more pronounced and remain for longer periods of time. Other diseases have more insidious onsets and display symptoms of muscle wasting (atrophy), swelling and paresthesia which may not suddenly incapacitate a person but may restrict his/her movements and eventually interfere with the ability to safely operate a motor vehicle. In many instances these diseases are degenerative in nature or may result in deterioration of the involved areas.

Once the individual has been diagnosed as having a rheumatic, arthritic, orthopedic, muscular, neurovascular or vascular disease, then he/she has an established history of that disease. The physician, when examining an individual, should consider the following: (1) the nature and severity of the individual's condition (such as atony or loss or loss of strength); (2) the degree of limitation present (such as range of motion); (3) the likelihood of progressive limitation (not always present initially but may manifest itself over time); and (4) the likelihood of sudden incapacitation. If severe functional impairment exists, the driver does not qualify. In cases where more frequent monitoring is required, a certificate for a shorter period of time may be issued. (See Conference on Neurological Disorders and Commercial Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

### **Epilepsy**

#### **§391.41(b)(3)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no established medical history or clinical diagnosis of epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a motor vehicle.

Epilepsy is a chronic functional disease characterized by seizures or episodes that occur without warning, resulting in loss of voluntary control which may lead to loss of consciousness and/or seizures. Therefore, the following drivers cannot be qualified: (1) a driver who has a medical history of epilepsy; (2) a driver who has a current clinical diagnosis of epilepsy; or (3) a driver who is taking antiseizure medication.

If an individual has had a sudden episode of a nonepileptic seizure or loss of consciousness of unknown cause which did not require antiseizure medication, the decision as to whether that person's condition will likely cause loss of consciousness or loss of ability to control a motor vehicle is made on an individual basis by the medical examiner in consultation with the treating physician. Before certification is considered, it is suggested that a 6-month waiting period elapse from the time of the episode. Following the waiting period, it is suggested that the individual have a complete neurological examination. If the results of the examination are negative and antiseizure medication is not required, then the driver may be qualified.

In those individual cases where a driver has a seizure or an episode of loss of consciousness that resulted from a known medical condition (e.g., drug reaction, high temperature, acute infectious disease, dehydration or acute metabolic disturbance), certification should be deferred until the driver has fully recovered from that condition and has no existing residual complications, and not taking antiseizure medication.

Drivers with a history of epilepsy/seizures off antiseizure medication and seizure free for 10 years may be qualified to drive a CMV in interstate commerce. Interstate drivers with a history of a single unprovoked seizure may be qualified to drive a CMV in interstate commerce if seizure-free and off antiseizure medication for a 5-year period or more.

(See Conference on Neurological Disorders and Commercial

Drivers at:

<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

### **Mental Disorders**

#### **§391.41(b)(9)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no mental, nervous, organic or functional disease or psychiatric disorder likely to interfere with ability to drive a motor vehicle safely.

Emotional or adjustment problems contribute directly to an individual's level of memory, reasoning, attention, and judgment. These problems often underlie physical disorders. A variety of functional disorders can cause drowsiness, dizziness,

incoordination, weakness or paralysis that may lead to confusion, deterioration, loss of functional control and susceptibility to accidents while driving. Physical fatigue, headache, impaired coordination, recurring physical ailments and chronic "raging" pain may be present to such a degree that certification for commercial driving is inadvisable. Somatic and psychosomatic complaints should be thoroughly examined when determining an individual's overall fitness to drive.

Disorders of a periodically incapacitating nature, even in the early stages of development, may warrant disqualification. Many bus and truck drivers have documented that "nervous trouble" related to nervous, personality, or emotional or adjustment problems is responsible for a significant fraction of their preventable accidents. The degree to which an individual is able to appreciate, evaluate, and adequately respond to environmental strain and emotional stress is critical when assessing an individual's mental alertness and flexibility to cope with the stresses of commercial motor vehicle driving.

When examining the driver, it should be kept in mind that individuals who live under chronic emotional upsets may have deeply ingrained maladaptive or erratic behavior patterns. Excessively antagonistic, instinctive, impulsive, openly aggressive, paranoid or severely depressed behavior greatly impairs with the driver's ability to drive safely. Those individuals who are highly susceptible to frequent states of emotional instability (schizophrenia, affective psychoses, paranoia, anxiety or depressive neuroses) may warrant

disqualification. Careful consideration should be given to the side effects and interactions of medications in the overall qualification determination. See Psychiatric Conference Report for specific recommendations on the use of medications and potential hazards for driving.

(See Conference on Psychiatric Disorders and Commercial Drivers at:

<http://www.fmcsa.dot.gov/rulesregs/medreports.htm>).

### **Vision**

#### **§391.41(b)(10)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has distant visual acuity of at least 20/40 (Snellen) in each eye with or without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses, distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70 degrees in the horizontal meridian in each eye, and the ability to recognize the colors of traffic signals and devices showing standard red, green and amber.

The term "ability to recognize the colors of" is interpreted to mean if a person can recognize and distinguish among traffic control signals and devices showing standard red, green and amber, he or she meets the minimum standard, even though he or she may have some type of color perception deficiency. If certain color perception tests are administered (such as Ichihara, Pseudoisochromatic, Yarn) and doubtful findings are discovered, a controlled test using signal red, green and amber may be employed to determine the driver's ability to recognize these colors.

Contact lenses are permissible if there is sufficient evidence to indicate that the driver has good tolerance and is well adapted to their use. Use of a contact lens in one eye for distance visual acuity and another lens in the other eye for near vision is not acceptable, nor telescopic lenses acceptable for the driving of commercial motor vehicles.

If an individual meets the criteria by the use of glasses or contact lenses, the following statement shall appear on the Medical Examiner's Certificate: "Qualified only if wearing corrective lenses."

CMV drivers who do not meet the Federal vision standard may call (202) 366-1750 for an application for a vision exemption.

(See Visual Disorders and Commercial Drivers at <http://www.fmcsa.dot.gov/rulesregs/medreports.htm>)

### **Hearing**

#### **§391.41(b)(11)**

A person is physically qualified to drive a commercial motor vehicle if that person:

First perceives a forced whispered voice in the better ear at not less than 5 feet with or without the use of a hearing aid, or, if tested by use of an audiometric device, does not have an average hearing loss in the better ear greater than 40 decibels at 500 Hz, 1,000 Hz and 2,000 Hz with or without a hearing aid when the audiometric device is calibrated to American National Standard (formerly AOA Standard) Z24.5-1951.

Since the prescribed standard under the FMCSRs is the American Standards Association (ANSI), it may be necessary to convert the audiometric results from the ISO standard to the ANSI standard. Instructions are included on the Medical Examination report form.

If an individual meets the criteria by using a hearing aid, the driver must wear that hearing aid and have it in operation all times while driving. Also, the driver must be in possession of a spare power source for the hearing aid.

For the whispered voice test, the individual should be stationed at least 5 feet from the examiner with the ear being tested turned toward the examiner. The other ear is covered. Using the breath which remains after a normal expiration, the examiner whispers words or random numbers such as 66, 18,

23, etc. The examiner should not use any abtactors (is sounding materials). The opposite ear should be tested in the same manner. If the individual fails the whispered voice test, the audiometric test should be administered.

If an individual meets the criteria by the use of a hearing aid, the following statement must appear on the Medical Examiner's Certificate "Qualified only when wearing a hearing aid" (See Hearing Disorders and Commercial Motor Vehicle Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medports.htm>)

#### **Drug Use**

##### **§391.41(b)(12)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Does not use a controlled substance identified in 21 CFR 1308.11.

Exception. A driver may use such a substance or drug, if the substance or drug is prescribed by a licensed medical practitioner who is familiar with the driver's medical history and assigned duties, and has advised the driver that the prescribed substance or drug will not adversely affect the driver's ability to safely operate a commercial motor vehicle.

This exception does not apply to methadone. The intent of the medical certification process is to medically evaluate a driver to ensure that the driver has no medical condition which interferes with the safe performance of driving tasks on a public road. If a driver uses a Schedule I drug or other substance, an amphetamine, a narcotic, or any other habit-forming drug, it may be cause for the driver to be found medically unqualified. Motor carriers are encouraged to obtain a practitioner's written statement about the effects on transportation safety of the use of a particular drug.

A test for controlled substances is not required as part of this biennial certification process. The FMCSA or the driver's employer should be contacted directly for information on controlled substances and alcohol testing under Part 382 of the FMCSRs.

The term "uses" is designed to encompass instances of prohibited drug use determined by a physician through established medical means. This may or may not involve body fluid testing. If body fluid testing takes place, positive test results should be confirmed by a second test of greater specificity. The term "habit-forming" is intended to include any drug or medication generally recognized as capable of becoming habitual, and which may impair the user's ability to operate a commercial motor vehicle safely.

The driver is medically unqualified for the duration of the prohibited drug(s) use and until a second examination shows the driver is free from the prohibited drug(s) use. Recertification may involve a substance abuse evaluation, the successful completion of a drug rehabilitation program, and a negative drug test result. Additionally, given that the certification period is normally two years, the examiner has the option to certify for a period of less than 2 years if the examiner determines more frequent monitoring is required.

(See Conference on Neurological Disorders and Commercial Drivers and Conference on Psychiatric Disorders and Commercial Drivers at: <http://www.fmcsa.dot.gov/rulesregs/medports.htm>)

#### **Alcoholism**

##### **§391.41(b)(13)**

A person is physically qualified to drive a commercial motor vehicle if that person:

Has no current clinical diagnosis of alcoholism.

The term "current clinical diagnosis of" is specifically designed to encompass a current alcoholic illness or those instances where the individual's physical condition has not fully stabilized, regardless of the time element. If an individual shows signs of having an alcohol-use problem, he or she should be referred to a specialist. After counseling and/or treatment, he or she may be considered for certification.

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(g) If the medical examiner finds that the person he/she examined is physically qualified to drive a commercial motor vehicle in accordance with §391.41(b), the medical examiner shall complete a certificate in the form prescribed in paragraph (h) of this section and furnish one copy to the person who was examined and one copy to the motor carrier that employs him/her.

(h) The medical examiner's certificate shall be substantially in accordance with the following form. Existing forms may be used until current printed supplies are depleted or until November 6, 2001, whichever occurs first.

**MEDICAL EXAMINER'S CERTIFICATE**

I certify that I have examined \_\_\_\_\_ in accordance with the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49) and with knowledge of the driving duties. I find this person is qualified, and, if applicable, only when:

wearing corrective lenses       driving within an exempt intracity zone (49 CFR 391.62)  
 wearing hearing aid             accompanied by a SMV Performance Evaluation Certificate (SPE)  
 accompanied by a \_\_\_\_\_       waived/assaulted       Qualified by operation of 49 CFR 391.64

The information I have provided regarding this physical examination is true and complete. A complete examination form with any attachment embodies my findings completely and correctly, and is on file in my office.

SIGNATURE OF MEDICAL EXAMINER \_\_\_\_\_ TELEPHONE \_\_\_\_\_ DATE \_\_\_\_\_

MEDICAL EXAMINER'S NAME (PRINT) \_\_\_\_\_  MD     DO     Chiropractor  
 Physician Assistant     Advanced Practice Nurse

MEDICAL EXAMINER'S LICENSE OR CERTIFICATE NO. / ISSUING STATE \_\_\_\_\_

SIGNATURE OF DRIVER \_\_\_\_\_ DRIVER'S LICENSE NO. \_\_\_\_\_ STATE \_\_\_\_\_

ADDRESS OF DRIVER \_\_\_\_\_

MEDICAL CERTIFICATE EXPIRATION DATE \_\_\_\_\_

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[35 FR 6460, Apr. 22, 1970, as amended at 68 FR 56199, Sept. 30, 2003]

**Editorial Note:** For Federal Register citations affecting §391.43, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 391.45 Persons who must be medically examined and certified.**

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Except as provided in §391.67, the following persons must be medically examined and certified in accordance with §391.43 as physically qualified to operate a commercial motor vehicle:

- (a) Any person who has not been medically examined and certified as physically qualified to operate a commercial motor vehicle;
- (b)(1) Any driver who has not been medically examined and certified as qualified to operate a commercial motor vehicle during the preceding 24 months; or
- (2) Any driver authorized to operate a commercial motor vehicle only with an exempt intracity zone pursuant to §391.62, or only by operation of the exemption in §391.64, if such driver has not been medically examined and certified as qualified to drive in such zone during the preceding 12 months; and
- (c) Any driver whose ability to perform his/her normal duties has been impaired by a physical or mental injury or disease.

[35 FR 6460, Apr. 22, 1970, as amended at 36 FR 223, Jan. 7, 1971; 54 FR 12202, Mar. 24, 1989; 61 FR 13347, Mar. 26, 1996]

### § 391.47 Resolution of conflicts of medical evaluation.

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(a) *Applications.* Applications for determination of a driver's medical qualifications under standards in this part will only be accepted if they conform to the requirements of this section.

(b) *Content.* Applications will be accepted for consideration only if the following conditions are met.

(1) The application must contain the name and address of the driver, motor carrier, and all physicians involved in the proceeding.

(2) The applicant must submit proof that there is a disagreement between the physician for the driver and the physician for the motor carrier concerning the driver's qualifications.

(3) The applicant must submit a copy of an opinion and report including results of all tests of an impartial medical specialist in the field in which the medical conflict arose. The specialist should be one agreed to by the motor carrier and the driver.

(i) In cases where the driver refuses to agree on a specialist and the applicant is the motor carrier, the applicant must submit a statement of his/her agreement to submit the matter to an impartial medical specialist in the field, proof that he/she has requested the driver to submit to the medical specialist, and the response, if any, of the driver to his/her request.

(ii) In cases where the motor carrier refuses to agree on a medical specialist, the driver must submit an opinion and test results of an impartial medical specialist, proof that he/she has requested the motor carrier to agree to submit the matter to the medical specialist and the response, if any, of the motor carrier to his/her request.

(4) The applicant must include a statement explaining in detail why the decision of the medical specialist identified in paragraph (b)(3) of this section, is unacceptable.

(5) The applicant must submit proof that the medical specialist mentioned in paragraph (b)(3) of this section was provided, prior to his/her determination, the medical history of the driver and an agreed-upon statement of the work the driver performs.

(6) The applicant must submit the medical history and statement of work provided to the medical specialist under paragraph (b)(5) of this section.

(7) The applicant must submit all medical records and statements of the physicians who have given opinions on the driver's qualifications.

(8) The applicant must submit a description and a copy of all written and documentary evidence upon which the party making application relies in the form set out in 49 CFR 386.37.

(9) The application must be accompanied by a statement of the driver that he/she intends to drive in interstate commerce not subject to the commercial zone exemption or a statement of the carrier that he/she has used or intends to use the driver for such work.

(10) The applicant must submit three copies of the application and all records.

(c) *Information.* The Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD) may request further information from the applicant if he/she determines that a decision cannot be made on the evidence submitted. If the applicant fails to submit the information requested, the Director may refuse to issue a determination.

(d)(1) *Action.* Upon receiving a satisfactory application the Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD) shall notify the parties (the driver, motor carrier, or any other interested party) that the application has been accepted and that a determination will be made. A copy of all evidence received shall be attached to the notice.

(2) *Reply.* Any party may submit a reply to the notification within 15 days after service. Such reply must be accompanied by all evidence the party wants the Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD) to consider in making his/her determination. Evidence submitted should include all medical records and test results upon which the party relies.

(3) *Parties.* A party for the purposes of this section includes the motor carrier and the driver, or anyone else submitting an application.

(e) *Petitions to review, burden of proof.* The driver or motor carrier may petition to review the Director's determination. Such petition must be submitted in accordance with §386.13(a) of this chapter. The burden of proof in such a proceeding is on the petitioner.

(f) *Status of driver.* Once an application is submitted to the Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD), the driver shall be deemed disqualified until such time as the Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD) makes a determination, or until the Director, Office of Bus and Truck Standards and Operations (MC-PSDPSD) orders otherwise.

(49 U.S.C. 304, 322; 18 U.S.C. 831–835; Pub. L. 93–633, 88 Stat. 8156 (49 U.S.C. 1801, *et seq.*); 49 CFR 1.48, 301.60)

[42 FR 18081, Apr. 5, 1977, as amended at 42 FR 53966, Oct. 4, 1977; 60 FR 38746, July 28, 1995]

### **§ 391.49 Alternative physical qualification standards for the loss or impairment of limbs.**

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(a) A person who is not physically qualified to drive under §391.41(b)(1) or (b)(2) and who is otherwise qualified to drive a commercial motor vehicle, may drive a commercial motor vehicle, if the Division Administrator, FMCSA, has granted a Skill Performance Evaluation (SPE) Certificate to that person.

(b) *SPE certificate.*—(1) *Application.* A letter of application for an SPE certificate may be submitted jointly by the person (driver applicant) who seeks an SPE certificate and by the motor carrier that will employ the driver applicant, if the application is accepted.

(2) *Application address.* The application must be addressed to the applicable field service center, FMCSA, for the State in which the co-applicant motor carrier's principal place of business is located. The address of each, and the States serviced, are listed in §390.27 of this chapter.

(3) *Exception.* A letter of application for an SPE certificate may be submitted unilaterally by a driver applicant. The application must be addressed to the field service center, FMCSA, for the State in which the driver has legal residence. The driver applicant must comply with all the requirements of paragraph (c) of this section except those in (c)(1)(i) and (iii). The driver applicant shall respond to the requirements of paragraphs (c)(2)(i) to (v) of this section, if the information is known.

(c) A letter of application for an SPE certificate shall contain:

(1) Identification of the applicant(s):

(i) Name and complete address of the motor carrier coapplicant;

(ii) Name and complete address of the driver applicant;

(iii) The U.S. DOT Motor Carrier Identification Number, if known; and

(iv) A description of the driver applicant's limb impairment for which SPE certificate is requested.

(2) Description of the type of operation the driver will be employed to perform:

(i) State(s) in which the driver will operate for the motor carrier coapplicant (if more than 10 States, designate general geographic area only);

- (ii) Average period of time the driver will be driving and/or on duty, per day;
  - (iii) Type of commodities or cargo to be transported;
  - (iv) Type of driver operation (*i.e.*, sleeper team, relay, owner operator, etc.); and
  - (v) Number of years experience operating the type of commercial motor vehicle(s) requested in the letter of application and total years of experience operating all types of commercial motor vehicles.
- (3) Description of the commercial motor vehicle(s) the driver applicant intends to drive:
- (i) Truck, truck tractor, or bus make, model, and year (if known);
  - (ii) Drive train;
  - (A) Transmission type (automatic or manual—if manual, designate number of forward speeds);
  - (B) Auxiliary transmission (if any) and number of forward speeds; and
  - (C) Rear axle (designate single speed, 2 speed, or 3 speed).
  - (iii) Type of brake system;
  - (iv) Steering, manual or power assisted;
  - (v) Description of type of trailer(s) (*i.e.*, van, flatbed, cargo tank, drop frame, lowboy, or pole);
  - (vi) Number of semitrailers or full trailers to be towed at one time;
  - (vii) For commercial motor vehicles designed to transport passengers, indicate the seating capacity of commercial motor vehicle; and
  - (viii) Description of any modification(s) made to the commercial motor vehicle for the driver applicant; attach photograph(s) where applicable.
- (4) Otherwise qualified:
- (i) The coapplicant motor carrier must certify that the driver applicant is otherwise qualified under the regulations of this part;
  - (ii) In the case of a unilateral application, the driver applicant must certify that he/she is otherwise qualified under the regulations of this part.
- (5) Signature of applicant(s):
- (i) Driver applicant's signature and date signed;
  - (ii) Motor carrier official's signature (if application has a coapplicant), title, and date signed. Depending upon the motor carrier's organizational structure (corporation, partnership, or proprietorship), the signer of the application shall be an officer, partner, or the proprietor.
- (d) The letter of application for an SPE certificate shall be accompanied by:
- (1) A copy of the results of the medical examination performed pursuant to §391.43;
  - (2) A copy of the medical certificate completed pursuant to §391.43(h);

(3) A medical evaluation summary completed by either a board qualified or board certified physiatrist (doctor of physical medicine) or orthopedic surgeon. The coapplicant motor carrier or the driver applicant shall provide the physiatrist or orthopedic surgeon with a description of the job-related tasks the driver applicant will be required to perform;

(i) The medical evaluation summary for a driver applicant disqualified under §391.41(b)(1) shall include:

(A) An assessment of the functional capabilities of the driver as they relate to the ability of the driver to perform normal tasks associated with operating a commercial motor vehicle; and

(B) A statement by the examiner that the applicant is capable of demonstrating precision prehension (e.g., manipulating knobs and switches) and power grasp prehension (e.g., holding and maneuvering the steering wheel) with each upper limb separately. This requirement does not apply to an individual who was granted a waiver, absent a prosthetic device, prior to the publication of this amendment.

(ii) The medical evaluation summary for a driver applicant disqualified under §391.41(b)(2) shall include:

(A) An explanation as to how and why the impairment interferes with the ability of the applicant to perform normal tasks associated with operating a commercial motor vehicle;

(B) An assessment and medical opinion of whether the condition will likely remain medically stable over the lifetime of the driver applicant; and

(C) A statement by the examiner that the applicant is capable of demonstrating precision prehension (e.g., manipulating knobs and switches) and power grasp prehension (e.g., holding and maneuvering the steering wheel) with each upper limb separately. This requirement does not apply to an individual who was granted an SPE certificate, absent an orthotic device, prior to the publication of this amendment.

(4) A description of the driver applicant's prosthetic or orthotic device worn, if any;

(5) Road test:

(i) A copy of the driver applicant's road test administered by the motor carrier coapplicant and the certificate issued pursuant to §391.31(b) through (g); or

(ii) A unilateral applicant shall be responsible for having a road test administered by a motor carrier or a person who is competent to administer the test and evaluate its results.

(6) Application for employment:

(i) A copy of the driver applicant's application for employment completed pursuant to §391.21; or

(ii) A unilateral applicant shall be responsible for submitting a copy of the last commercial driving position's employment application he/she held. If not previously employed as a commercial driver, so state.

(7) A copy of the driver applicant's SPE certificate of certain physical defects issued by the individual State(s), where applicable; and

(8) A copy of the driver applicant's State Motor Vehicle Driving Record for the past 3 years from each State in which a motor vehicle driver's license or permit has been obtained.

(e) *Agreement.* A motor carrier that employs a driver with an SPE certificate agrees to:

(1) File promptly (within 30 days of the involved incident) with the Medical Program Specialist, FMCSA service center, such documents and information as may be required about driving activities, accidents, arrests, license suspensions, revocations, or withdrawals, and convictions which involve the driver applicant. This applies whether the driver's SPE certificate is a unilateral one or has a coapplicant motor carrier;

(i) A motor carrier who is a coapplicant must file the required documents with the Medical Program Specialist, FMCSA for the State in which the carrier's principal place of business is located; or



(ii) A motor carrier who employs a driver who has been issued a unilateral SPE certificate must file the required documents with the Medical Program Specialist, FMCSA service center, for the State in which the driver has legal residence.

(2) Evaluate the driver with a road test using the trailer the motor carrier intends the driver to transport or, in lieu of, accept a certificate of a trailer road test from another motor carrier if the trailer type(s) is similar, or accept the trailer road test done during the Skill Performance Evaluation if it is a similar trailer type(s) to that of the prospective motor carrier. Job tasks, as stated in paragraph (e)(3) of this section, are not evaluated in the Skill Performance Evaluation;

(3) Evaluate the driver for those nondriving safety related job tasks associated with whatever type of trailer(s) will be used and any other nondriving safety related or job related tasks unique to the operations of the employing motor carrier; and

(4) Use the driver to operate the type of commercial motor vehicle defined in the SPE certificate only when the driver is in compliance with the conditions and limitations of the SPE certificate.

(f) The driver shall supply each employing motor carrier with a copy of the SPE certificate.

(g) The State Director, FMCSA, may require the driver applicant to demonstrate his or her ability to safely operate the commercial motor vehicle(s) the driver intends to drive to an agent of the State Director, FMCSA. The SPE certificate form will identify the power unit (bus, truck, truck tractor) for which the SPE certificate has been granted. The SPE certificate forms will also identify the trailer type used in the Skill Performance Evaluation; however, the SPE certificate is not limited to that specific trailer type. A driver may use the SPE certificate with other trailer types if a successful trailer road test is completed in accordance with paragraph (e)(2) of this section. Job tasks, as stated in paragraph (e)(3) of this section, are not evaluated during the Skill Performance Evaluation.

(h) The State Director, FMCSA, may deny the application for SPE certificate or may grant it totally or in part and issue the SPE certificate subject to such terms, conditions, and limitations as deemed consistent with the public interest. The SPE certificate is valid for a period not to exceed 2 years from date of issue, and may be renewed 30 days prior to the expiration date.

(i) The SPE certificate renewal application shall be submitted to the Medical Program Specialist, FMCSA service center, for the State in which the driver has legal residence, if the SPE certificate was issued unilaterally. If the SPE certificate has a coapplicant, then the renewal application is submitted to the Medical Program Specialist, FMCSA field service center, for the State in which the coapplicant motor carrier's principal place of business is located. The SPE certificate renewal application shall contain the following:

(1) Name and complete address of motor carrier currently employing the applicant;

(2) Name and complete address of the driver;

(3) Effective date of the current SPE certificate;

(4) Expiration date of the current SPE certificate;

(5) Total miles driven under the current SPE certificate;

(6) Number of accidents incurred while driving under the current SPE certificate, including date of the accident(s), number of fatalities, number of injuries, and the estimated dollar amount of property damage;

(7) A current medical examination report;

(8) A medical evaluation summary pursuant to paragraph (d)(3) of this section, if an unstable medical condition exists. All handicapped conditions classified under §391.41(b)(1) are considered unstable. Refer to paragraph (d)(3)(ii) of this section for the condition under §391.41(b)(2) which may be considered medically stable.

(9) A copy of driver's current State motor vehicle driving record for the period of time the current SPE certificate has been in effect;

(10) Notification of any change in the type of tractor the driver will operate;

(11) Driver's signature and date signed; and

(12) Motor carrier coapplicant's signature and date signed.

(j)(1) Upon granting an SPE certificate, the State Director, FMCSA, will notify the driver applicant and co-applicant motor carrier (if applicable) by letter. The terms, conditions, and limitations of the SPE certificate will be set forth. A motor carrier shall maintain a copy of the SPE certificate in its driver qualification file. A copy of the SPE certificate shall be retained in the motor carrier's file for a period of 3 years after the driver's employment is terminated. The driver applicant shall have the SPE certificate (or a legible copy) in his/her possession whenever on duty.

(2) Upon successful completion of the skill performance evaluation, the State Director, FMCSA, for the State where the driver applicant has legal residence, must notify the driver by letter and enclose an SPE certificate substantially in the following form:

### Skill Performance Evaluation Certificate

Name of Issuing Agency: \_\_\_\_\_

Agency Address: \_\_\_\_\_

Telephone Number: ( ) \_\_\_\_\_

Issued Under 49 CFR 391.49, subchapter B of the Federal Motor Carrier Safety Regulations

Driver's Name: \_\_\_\_\_

Effective Date: \_\_\_\_\_

SSN: \_\_\_\_\_

DOB: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Driver Disability: \_\_\_\_\_

Check One:  New  Renewal

Driver's License: \_\_\_\_\_

(State) (Number)

In accordance with 49 CFR 391.49, subchapter B of the Federal Motor Carrier Safety Regulations (FMCSRs), the driver application for a skill performance evaluation (SPE) certificate is hereby granted authorizing the above-named driver to operate in interstate or foreign commerce under the provisions set forth below. This certificate is granted for the period shown above, not to exceed 2 years, subject to periodic review as may be found necessary. This certificate may be renewed upon submission of a renewal application. Continuation of this certificate is dependent upon strict adherence by the above-named driver to the provisions set forth below and compliance with the FMCSRs. Any failure to comply with provisions herein may be cause for cancellation.

CONDITIONS: As a condition of this certificate, reports of all accidents, arrests, suspensions, revocations, withdrawals of driver licenses or permits, and convictions involving the above-named driver shall be reported in writing to the Issuing Agency by the EMPLOYING MOTOR CARRIER within 30 days after occurrence.

#### LIMITATIONS:

1. Vehicle Type (power unit):\* \_\_\_\_\_

2. Vehicle modification(s): \_\_\_\_\_

3. Prosthetic or Orthotic device(s) (Required to be Worn While Driving): \_\_\_\_\_

4. Additional Provision(s): \_\_\_\_\_

NOTICE: To all MOTOR CARRIERS employing a driver with an SPE certificate. This certificate is granted for the operation of the *power unit only*. It is the responsibility of the employing motor carrier to evaluate the driver with a road test using the trailer type(s) the motor carrier intends the driver to transport, or in lieu of, accept the trailer road test done during the SPE if it is a similar trailer type(s) to that of the prospective motor carrier. Also, it is the responsibility of the employing motor carrier to evaluate the driver for those non-driving safety-related job tasks associated with the type of trailer(s) utilized, as well as, any other non-driving safety-related or job-related tasks unique to the operations of the employing motor carrier.

The SPE of the above named driver was given by a Skill Performance Evaluation Program Specialist. It was successfully completed utilizing the above named power unit and \_\_\_\_\_ (trailer, if applicable)

The tractor or truck had a \_\_\_\_\_ transmission.

Please read the *NOTICE* paragraph above.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

(k) The State Director, FMCSA, may revoke an SPE certificate after the person to whom it was issued is given notice of the proposed revocation and has been allowed a reasonable opportunity to appeal.

(l) Falsifying information in the letter of application, the renewal application, or falsifying information required by this section by either the applicant or motor carrier is prohibited.

[65 FR 25287, May 1, 2000, as amended at 65 FR 59380, Oct. 5, 2000; 67 FR 61824, Oct. 2, 2002]

## Subpart F—Files and Records

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### § 391.51 General requirements for driver qualification files.

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(a) Each motor carrier shall maintain a driver qualification file for each driver it employs. A driver's qualification file may be combined with his/her personnel file.

(b) The qualification file for a driver must include:

(1) The driver's application for employment completed in accordance with §391.21;

(2) A copy of the response by each State agency concerning a driver's driving record pursuant to §391.23(a)(1);

(3) The certificate of driver's road test issued to the driver pursuant to §391.31(e), or a copy of the license or certificate which the motor carrier accepted as equivalent to the driver's road test pursuant to §391.33;

(4) The response of each State agency to the annual driver record inquiry required by §391.25(a);

(5) A note relating to the annual review of the driver's driving record as required by §391.25(c)(2);

(6) A list or certificate relating to violations of motor vehicle laws and ordinances required by §391.27;

(7) The medical examiner's certificate of his/her physical qualification to drive a commercial motor vehicle as required by §391.43(f) or a legible photographic copy of the certificate; and

(8) A letter from the Field Administrator, Division Administrator, or State Director granting a waiver of a physical disqualification, if a waiver was issued under §391.49.

(c) Except as provided in paragraph (d) of this section, each driver's qualification file shall be retained for as long as a driver is employed by that motor carrier and for three years thereafter.

(d) The following records may be removed from a driver's qualification file three years after the date of execution:

(1) The response of each State agency to the annual driver record inquiry required by §391.25(a);

(2) The note relating to the annual review of the driver's driving record as required by §391.25(c)(2);

(3) The list or certificate relating to violations of motor vehicle laws and ordinances required by §391.27;

(4) The medical examiner's certificate of the driver's physical qualification to drive a commercial motor vehicle or the photographic copy of the certificate as required by §391.43(f); and

(5) The letter issued under §391.49 granting a waiver of a physical disqualification.

(Approved by the Office of Management and Budget under control number 2126-004)

[63 FR 33277, June 18, 1998, as amended at 69 FR 16721, Mar. 30, 2004]

### **§ 391.53 Driver investigation history file.**

[↑ top](#)

(a) After October 29, 2004, each motor carrier must maintain records relating to the investigation into the safety performance history of a new or prospective driver pursuant to paragraphs (d) and (e) of §391.23. This file must be maintained in a secure location with controlled access.

(1) The motor carrier must ensure that access to this data is limited to those who are involved in the hiring decision or who control access to the data. In addition, the motor carrier's insurer may have access to the data, except the alcohol and controlled substances data.

(2) This data must only be used for the hiring decision.

(b) The file must include:

(1) A copy of the driver's written authorization for the motor carrier to seek information about a driver's alcohol and controlled substances history as required under §391.23(d).

(2) A copy of the response(s) received for investigations required by paragraphs (d) and (e) of §391.23 from each previous employer, or documentation of good faith efforts to contact them. The record must include the previous employer's name and address, the date the previous employer was contacted, and the information received about the

driver from the previous employer. Failures to contact a previous employer, or of them to provide the required safety performance history information, must be documented.

(c) The safety performance histories received from previous employers for a driver who is hired must be retained for as long as the driver is employed by that motor carrier and for three years thereafter.

(d) A motor carrier must make all records and information in this file available to an authorized representative or special agent of the Federal Motor Carrier Safety Administration, an authorized State or local enforcement agency representative, or an authorized third party, upon request or as part of any inquiry within the time period specified by the requesting representative.

(Approved by the Office of Management and Budget under control number 2126-004)

[69 FR 16721, Mar. 30, 2004]

### **§ 391.55 LCV Driver-Instructor qualification files.**

[↑ top](#)

(a) Each motor carrier must maintain a qualification file for each LCV driver-instructor it employs or uses. The LCV driver-instructor qualification file may be combined with his/her personnel file.

(b) The LCV driver-instructor qualification file must include the information in paragraphs (b)(1) and (b)(2) of this section for a skills instructor or the information in paragraph (b)(1) of this section for a classroom instructor, as follows:

(1) Evidence that the instructor has met the requirements of 49 CFR 380.301 or 380.303;

(2) A photographic copy of the individual's currently valid CDL with the appropriate endorsements.

[69 FR 16738, Mar. 30, 2004; 69 FR 28846, May 19, 2004]

### **Subpart G—Limited Exemptions**

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### **§ 391.61 Drivers who were regularly employed before January 1, 1971.**

[↑ top](#)

The provisions of §391.21 (relating to applications for employment), §391.23 (relating to investigations and inquiries), and §391.33 (relating to road tests) do not apply to a driver who has been a single-employer driver (as defined in §390.5 of this subchapter) of a motor carrier for a continuous period which began before January 1, 1971, as long as he/she continues to be a single-employer driver of that motor carrier.

[63 FR 33278, June 18, 1998]

### **§ 391.62 Limited exemptions for intra-city zone drivers.**

[↑ top](#)

The provisions of §§391.11(b)(1) and 391.41(b)(1) through (b)(11) do not apply to a person who:

(a) Was otherwise qualified to operate and operated a commercial motor vehicle in a municipality or exempt intracity zone thereof throughout the one-year period ending November 18, 1988;

(b) Meets all the other requirements of this section;

(c) Operates wholly within the exempt intracity zone (as defined in 49 CFR 390.5);

(d) Does not operate a vehicle used in the transportation of hazardous materials in a quantity requiring placarding under regulations issued by the Secretary under 49 U.S.C. chapter 51.; and

(e) Has a medical or physical condition which:

(1) Would have prevented such person from operating a commercial motor vehicle under the Federal Motor Carrier Safety Regulations contained in this subchapter;

(2) Existed on July 1, 1988, or at the time of the first required physical examination after that date; and

(3) The examining physician has determined this condition has not substantially worsened since July 1, 1988, or at the time of the first required physical examination after that date.

[61 FR 13346, Mar. 26, 1996; 61 FR 17253, Apr. 19, 1996]

### **§ 391.63 Multiple-employer drivers.**

[↑ top](#)

(a) If a motor carrier employs a person as a multiple-employer driver (as defined in §390.5 of this subchapter), the motor carrier shall comply with all requirements of this part, except that the motor carrier need not—

(1) Require the person to furnish an application for employment in accordance with §391.21;

(2) Make the investigations and inquiries specified in §391.23 with respect to that person;

(3) Perform the annual driving record inquiry required by §391.25(a);

(4) Perform the annual review of the person's driving record required by §391.25(b); or

(5) Require the person to furnish a record of violations or a certificate in accordance with §391.27.

(b) Before a motor carrier permits a multiple-employer driver to drive a commercial motor vehicle, the motor carrier must obtain his/her name, his/her social security number, and the identification number, type and issuing State of his/her commercial motor vehicle operator's license. The motor carrier must maintain this information for three years after employment of the multiple-employer driver ceases.

(Approved by the Office of Management and Budget under control number 2125–0081)

[63 FR 33278, June 18, 1998]

### **§ 391.64 Grandfathering for certain drivers participating in vision and diabetes waiver study programs.**

[↑ top](#)

(a) The provisions of §391.41(b)(3) do not apply to a driver who was a participant in good standing on March 31, 1996, in a waiver study program concerning the operation of commercial motor vehicles by insulin-controlled diabetic drivers; *provided:*

(1) The driver is physically examined every year, including an examination by a board-certified/eligible endocrinologist attesting to the fact that the driver is:

(i) Otherwise qualified under §391.41;

(ii) Free of insulin reactions (an individual is free of insulin reactions if that individual does not have severe hypoglycemia or hypoglycemia unawareness, and has less than one documented, symptomatic hypoglycemic reaction per month);

(iii) Able to and has demonstrated willingness to properly monitor and manage his/her diabetes; and

(iv) Not likely to suffer any diminution in driving ability due to his/her diabetic condition.

(2) The driver agrees to and complies with the following conditions:

(i) A source of rapidly absorbable glucose shall be carried at all times while driving;

(ii) Blood glucose levels shall be self-monitored one hour prior to driving and at least once every four hours while driving or on duty prior to driving using a portable glucose monitoring device equipped with a computerized memory;

(iii) Submit blood glucose logs to the endocrinologist or medical examiner at the annual examination or when otherwise directed by an authorized agent of the FMCSA;

(iv) Provide a copy of the endocrinologist's report to the medical examiner at the time of the annual medical examination; and

(v) Provide a copy of the annual medical certification to the employer for retention in the driver's qualification file and retain a copy of the certification on his/her person while driving for presentation to a duly authorized Federal, State or local enforcement official.

(b) The provisions of §391.41(b)(10) do not apply to a driver who was a participant in good standing on March 31, 1996, in a waiver study program concerning the operation of commercial motor vehicles by drivers with visual impairment in one eye; *provided:*

(1) The driver is physically examined every year, including an examination by an ophthalmologist or optometrist attesting to the fact that the driver:

(i) Is otherwise qualified under §391.41; and

(ii) Continues to measure at least 20/40 (Snellen) in the better eye.

(2) The driver provides a copy of the ophthalmologist or optometrist report to the medical examiner at the time of the annual medical examination.

(3) The driver provides a copy of the annual medical certification to the employer for retention in the driver's qualification file and retains a copy of the certification on his/her person while driving for presentation to a duly authorized federal, state or local enforcement official.

[61 FR 13346, Mar. 26, 1996]

### **§ 391.65 Drivers furnished by other motor carriers.**

[↑ top](#)

(a) A motor carrier may employ a driver who is not a regularly employed driver of that motor carrier without complying with the generally applicable driver qualification file requirements in this part, if—

(1) The driver is regularly employed by another motor carrier; and

(2) The motor carrier which regularly employs the driver certifies that the driver is fully qualified to drive a commercial motor vehicle in a written statement which—

- (i) Is signed and dated by an officer or authorized employee of the regularly employing carrier;
- (ii) Contains the driver's name and signature;
- (iii) Certifies that the driver has been regularly employed as defined in §390.5;
- (iv) Certifies that the driver is fully qualified to drive a commercial motor vehicle under the rules in part 391 of the Federal Motor Carrier Safety Regulations;
- (v) States the expiration date of the driver's medical examiner's certificate;
- (vi) Specifies an expiration date for the certificate, which shall be not longer than 2 years or, if earlier, the expiration date of the driver's current medical examiner's certificate; and
- (vii) After April 1, 1977, is substantially in accordance with the following form:

(Name of driver) (SS No.) (Signature of driver)

I certify that the above named driver, as defined in §390.5 is regularly driving a commercial motor vehicle operated by the below named carrier and is fully qualified under part 391, Federal Motor Carrier Safety Regulations. His/her current medical examiner's certificate expires on \_\_\_\_ (Date)

This certificate expires:

(Date not later than expiration date of medical certificate)

Issued on \_\_\_\_ (date)

Issued by \_\_\_\_\_ (Name of carrier) (Address) (Signature)  
 \_\_\_\_\_ (Title) \_\_\_\_\_

(b) A motor carrier that obtains a certificate in accordance with paragraph (a)(2) of this section shall:

(1) Contact the motor carrier which certified the driver's qualifications under this section to verify the validity of the certificate. This contact may be made in person, by telephone, or by letter.

(2) Retain a copy of that certificate in its files for three years.

(c) A motor carrier which certifies a driver's qualifications under this section shall be responsible for the accuracy of the certificate. The certificate is no longer valid if the driver leaves the employment of the motor carrier which issued the certificate or is no longer qualified under the rules in this part.

[41 FR 36656, Aug. 31, 1976, as amended at 53 FR 18057, May 19, 1988; 60 FR 38745, July 28, 1995; 63 FR 33278, June 18, 1998; 67 FR 61824, Oct. 2, 2002]

**§ 391.67 Farm vehicle drivers of articulated commercial motor vehicles.**



The following rules in this part do not apply to a farm vehicle driver (as defined in §390.5 of this subchapter) who is 18 years of age or older and who drives an articulated commercial motor vehicle:

- (a) Section 391.11(b)(1), (b)(6) and (b)(8) (relating to general qualifications of drivers);



(b) Subpart C (relating to disclosure of, investigation into, and inquiries about the background, character, and driving record of drivers);

(c) Subpart D (relating to road tests); and

(d) Subpart F (relating to maintenance of files and records).

[63 FR 33278, June 18, 1998]

### **§ 391.68 Private motor carrier of passengers (nonbusiness).**

[↑ top](#)

The following rules in this part do not apply to a private motor carrier of passengers (nonbusiness) and its drivers:

(a) Section 391.11(b)(1), (b)(6) and (b)(8) (relating to general qualifications of drivers);

(b) Subpart C (relating to disclosure of, investigation into, and inquiries about the background, character, and driving record of, drivers);

(c) So much of §§391.41 and 391.45 as require a driver to be medically examined and to have a medical examiner's certificate on his/her person; and

(d) Subpart F (relating to maintenance of files and records).

[63 FR 33278, June 18, 1998]

### **§ 391.69 Private motor carrier of passengers (business).**

[↑ top](#)

The provisions of §391.21 (relating to applications for employment), §391.23 (relating to investigations and inquiries), and §391.31 (relating to road tests) do not apply to a driver who was a single-employer driver (as defined in §390.5 of this subchapter) of a private motor carrier of passengers (business) as of July 1, 1994, so long as the driver continues to be a single-employer driver of that motor carrier.

[63 FR 33278, June 18, 1998]

### **§ 391.71 [Reserved]**

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## **PART 392—DRIVING OF COMMERCIAL MOTOR VEHICLES**

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**Authority:** 49 U.S.C. 13902, 31136, 31502; and 49 CFR 1.73.

**Source:** 33 FR 19732, Dec. 25, 1968, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 392 appear at 66 FR 49874, Oct. 1, 2001.

## Subpart A—General

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### § 392.1 Scope of the rules in this part.

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Every motor carrier, its officers, agents, representatives, and employees responsible for the management, maintenance, operation, or driving of commercial motor vehicles, or the hiring, supervising, training, assigning, or dispatching of drivers, shall be instructed in and comply with the rules in this part.

[53 FR 18057, May 19, 1988, as amended at 60 FR 38746, July 28, 1995]

### § 392.2 Applicable operating rules.

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Every commercial motor vehicle must be operated in accordance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated. However, if a regulation of the Federal Motor Carrier Safety Administration imposes a higher standard of care than that law, ordinance or regulation, the Federal Motor Carrier Safety Administration regulation must be complied with.

[35 FR 7800, May 21, 1970, as amended at 60 FR 38746, July 28, 1995]

### § 392.3 Ill or fatigued operator.

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No driver shall operate a commercial motor vehicle, and a motor carrier shall not require or permit a driver to operate a commercial motor vehicle, while the driver's ability or alertness is so impaired, or so likely to become impaired, through fatigue, illness, or any other cause, as to make it unsafe for him/her to begin or continue to operate the commercial motor vehicle. However, in a case of grave emergency where the hazard to occupants of the commercial motor vehicle or other users of the highway would be increased by compliance with this section, the driver may continue to operate the commercial motor vehicle to the nearest place at which that hazard is removed.

[35 FR 7800, May 21, 1970, as amended at 60 FR 38746, July 28, 1995]

### § 392.4 Drugs and other substances.

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(a) No driver shall be on duty and possess, be under the influence of, or use, any of the following drugs or other substances:

- (1) Any 21 CFR 1308.11 *Schedule I* substance;
- (2) An amphetamine or any formulation thereof (including, but not limited, to "pep pills," and "bennies");
- (3) A narcotic drug or any derivative thereof; or
- (4) Any other substance, to a degree which renders the driver incapable of safely operating a motor vehicle.

(b) No motor carrier shall require or permit a driver to violate paragraph (a) of this section.

(c) Paragraphs (a) (2), (3), and (4) do not apply to the possession or use of a substance administered to a driver by or under the instructions of a licensed medical practitioner, as defined in §382.107 of this subchapter, who has advised the driver that the substance will not affect the driver's ability to safely operate a motor vehicle.

(d) As used in this section, "possession" does not include possession of a substance which is manifested and transported as part of a shipment.

[61 FR 9567, Mar. 8, 1996, as amended at 62 FR 37153, July 11, 1997]

### **§ 392.5 Alcohol prohibition.**

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(a) No driver shall—

- (1) Use alcohol, as defined in §382.107 of this subchapter, or be under the influence of alcohol, within 4 hours before going on duty or operating, or having physical control of, a commercial motor vehicle; or
- (2) Use alcohol, be under the influence of alcohol, or have any measured alcohol concentration or detected presence of alcohol, while on duty, or operating, or in physical control of a commercial motor vehicle; or
- (3) Be on duty or operate a commercial motor vehicle while the driver possesses wine of not less than one-half of one per centum of alcohol by volume, beer as defined in 26 U.S.C. 5052(a), of the *Internal Revenue Code of 1954*, and distilled spirits as defined in section 5002(a)(8), of such Code. However, this does not apply to possession of wine, beer, or distilled spirits which are:

- (i) Manifested and transported as part of a shipment; or
- (ii) Possessed or used by bus passengers.

(b) No motor carrier shall require or permit a driver to—

- (1) Violate any provision of paragraph (a) of this section; or
- (2) Be on duty or operate a commercial motor vehicle if, by the driver's general appearance or conduct or by other substantiating evidence, the driver appears to have used alcohol within the preceding four hours.

(c) Any driver who is found to be in violation of the provisions of paragraph (a) or (b) of this section shall be placed out-of-service immediately for a period of 24 hours.

- (1) The 24-hour out-of-service period will commence upon issuance of an out-of-service order.

(2) No driver shall violate the terms of an out-of-service order issued under this section.

(d) Any driver who is issued an out-of-service order under this section shall:

(1) Report such issuance to his/her employer within 24 hours; and

(2) Report such issuance to a State official, designated by the State which issued his/her driver's license, within 30 days unless the driver chooses to request a review of the order. In this case, the driver shall report the order to the State official within 30 days of an affirmation of the order by either the Division Administrator or State Director for the geographical area or the Administrator.

(e) Any driver who is subject to an out-of-service order under this section may petition for review of that order by submitting a petition for review in writing within 10 days of the issuance of the order to the Division Administrator or State Director for the geographical area in which the order was issued. The Division Administrator or State Director may affirm or reverse the order. Any driver adversely affected by such order of the Regional Director of Motor Carriers may petition the Administrator for review in accordance with 49 CFR 386.13.

(49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

[47 FR 47837, Oct. 28, 1982, as amended at 52 FR 27201, July 20, 1987; 59 FR 7515, Feb. 15, 1994; 61 FR 9567, Mar. 8, 1996]

### **§ 392.6 Schedules to conform with speed limits.**

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No motor carrier shall schedule a run nor permit nor require the operation of any commercial motor vehicle between points in such period of time as would necessitate the commercial motor vehicle being operated at speeds greater than those prescribed by the jurisdictions in or through which the commercial motor vehicle is being operated.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38746, July 28, 1995]

### **§ 392.7 Equipment, inspection and use.**

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No commercial motor vehicle shall be driven unless the driver is satisfied that the following parts and accessories are in good working order, nor shall any driver fail to use or make use of such parts and accessories when and as needed:

Service brakes, including trailer brake connections.

Parking (hand) brake.

Steering mechanism.

Lighting devices and reflectors.

Tires.

Horn.

Windshield wiper or wipers.

Rear-vision mirror or mirrors.

Coupling devices.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38746, July 28, 1995]

### **§ 392.8 Emergency equipment, inspection and use.**

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No commercial motor vehicle shall be driven unless the driver thereof is satisfied that the emergency equipment required by §393.95 of this subchapter is in place and ready for use; nor shall any driver fail to use or make use of such equipment when and as needed.

[49 FR 38290, Sept. 28, 1984, as amended at 60 FR 38746, July 28, 1995]

### **§ 392.9 Inspection of cargo, cargo securement devices and systems.**

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(a) *General.* A driver may not operate a commercial motor vehicle and a motor carrier may not require or permit a driver to operate a commercial motor vehicle unless—

(1) The commercial motor vehicle's cargo is properly distributed and adequately secured as specified in §§393.100 through 393.142 of this subchapter.

(2) The commercial motor vehicle's tailgate, tailboard, doors, tarpaulins, spare tire and other equipment used in its operation, and the means of fastening the commercial motor vehicle's cargo, are secured; and

(3) The commercial motor vehicle's cargo or any other object does not obscure the driver's view ahead or to the right or left sides (except for drivers of self-steer dollies), interfere with the free movement of his/her arms or legs, prevent his/her free and ready access to accessories required for emergencies, or prevent the free and ready exit of any person from the commercial motor vehicle's cab or driver's compartment.

(b) *Drivers of trucks and truck tractors.* Except as provided in paragraph (b)(4) of this section, the driver of a truck or truck tractor must—

(1) Assure himself/herself that the provisions of paragraph (a) of this section have been complied with before he/she drives that commercial motor vehicle;

(2) Inspect the cargo and the devices used to secure the cargo within the first 50 miles after beginning a trip and cause any adjustments to be made to the cargo or load securement devices as necessary, including adding more securement devices, to ensure that cargo cannot shift on or within, or fall from the commercial motor vehicle; and

(3) Reexamine the commercial motor vehicle's cargo and its load securement devices during the course of transportation and make any necessary adjustment to the cargo or load securement devices, including adding more securement devices, to ensure that cargo cannot shift on or within, or fall from, the commercial motor vehicle. Reexamination and any necessary adjustments must be made whenever—

(i) The driver makes a change of his/her duty status; or

(ii) The commercial motor vehicle has been driven for 3 hours; or

(iii) The commercial motor vehicle has been driven for 150 miles, whichever occurs first.

(4) The rules in this paragraph (b) do not apply to the driver of a sealed commercial motor vehicle who has been ordered not to open it to inspect its cargo or to the driver of a commercial motor vehicle that has been loaded in a manner that makes inspection of its cargo impracticable.

[67 FR 61224, Sept. 27, 2002]

## § 392.9a Operating authority.

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(a) *Operating authority required.* A motor vehicle providing transportation requiring operating authority must not be operated—

- (1) Without the required operating authority or
- (2) Beyond the scope of the operating authority granted.

(b) *Penalties.* Every motor vehicle providing transportation requiring operating authority shall be ordered out of service if it is determined that the motor carrier responsible for the operation of such a vehicle is operating in violation of paragraph (a) of this section. In addition, the motor carrier may be subject to penalties in accordance with 49 U.S.C. 14901.

(c) *Administrative Review.* Upon issuance of the out-of-service order under paragraph (b) of this section, the driver shall comply immediately with such order. Opportunity for review shall be provided in accordance with 5 U.S.C. 554 not later than 10 days after issuance of such order.

[71 FR 50867, Aug. 28, 2006]

## Subpart B—Driving of Commercial Motor Vehicles

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### § 392.10 Railroad grade crossings; stopping required.

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(a) Except as provided in paragraph (b) of this section, the driver of a commercial motor vehicle specified in paragraphs (a) (1) through (6) of this section shall not cross a railroad track or tracks at grade unless he/she first: Stops the commercial motor vehicle within 50 feet of, and not closer than 15 feet to, the tracks; thereafter listens and looks in each direction along the tracks for an approaching train; and ascertains that no train is approaching. When it is safe to do so, the driver may drive the commercial motor vehicle across the tracks in a gear that permits the commercial motor vehicle to complete the crossing without a change of gears. The driver must not shift gears while crossing the tracks.

- (1) Every bus transporting passengers,
- (2) Every commercial motor vehicle transporting any quantity of a Division 2.3 chlorine.
- (3) Every commercial motor vehicle which, in accordance with the regulations of the Department of Transportation, is required to be marked or placarded with one of the following classifications:
  - (i) Division 1.1
  - (ii) Division 1.2, or Division 1.3
  - (iii) Division 2.3 Poison gas
  - (iv) Division 4.3
  - (v) Class 7
  - (vi) Class 3 Flammable
  - (vii) Division 5.1

(viii) Division 2.2

(ix) Division 2.3 Chlorine

(x) Division 6.1 Poison

(xi) Division 2.2 Oxygen

(xii) Division 2.1

(xiii) Class 3 Combustible liquid

(xiv) Division 4.1

(xv) Division 5.1

(xvi) Division 5.2

(xvii) Class 8

(xviii) Division 1.4

(4) Every cargo tank motor vehicle, whether loaded or empty, used for the transportation of any hazardous material as defined in the Hazardous Materials Regulations of the Department of Transportation, Parts 107 through 180 of this title.

(5) Every cargo tank motor vehicle transporting a commodity which at the time of loading has a temperature above its flashpoint as determined by §173.120 of this title.

(6) Every cargo tank motor vehicle, whether loaded or empty, transporting any commodity under exemption in accordance with the provisions of subpart B of part 107 of this title.

(b) A stop need not be made at:

(1) A streetcar crossing, or railroad tracks used exclusively for industrial switching purposes, within a business district, as defined in §390.5 of this chapter.

(2) A railroad grade crossing when a police officer or crossing flagman directs traffic to proceed,

(3) A railroad grade crossing controlled by a functioning highway traffic signal transmitting a green indication which, under local law, permits the commercial motor vehicle to proceed across the railroad tracks without slowing or stopping.

(4) An abandoned railroad grade crossing which is marked with a sign indicating that the rail line is abandoned,

(5) An industrial or spur line railroad grade crossing marked with a sign reading "Exempt." Such "Exempt" signs shall be erected only by or with the consent of the appropriate State or local authority.

(Sec. 12, 80 Stat. 931; 49 U.S.C. 1651 note; 49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

[33 FR 19732, Dec. 25, 1968, as amended at 35 FR 7801, May 21, 1970; 38 FR 1589, Jan. 16, 1973; 40 FR 44555, Sept. 29, 1975; 45 FR 46424, July 10, 1980; 47 FR 47837, Oct. 28, 1982; 59 FR 63924, Dec. 12, 1994; 60 FR 38746, 38747, July 28, 1995]

### **§ 392.11 Railroad grade crossings; slowing down required.**

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Every commercial motor vehicle other than those listed in §392.10 shall, upon approaching a railroad grade crossing, be driven at a rate of speed which will permit said commercial motor vehicle to be stopped before reaching the nearest rail of such crossing and shall not be driven upon or over such crossing until due caution has been taken to ascertain that the course is clear.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§§ 392.12-392.13 [Reserved]**

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### **§ 392.14 Hazardous conditions; extreme caution.**

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Extreme caution in the operation of a commercial motor vehicle shall be exercised when hazardous conditions, such as those caused by snow, ice, sleet, fog, mist, rain, dust, or smoke, adversely affect visibility or traction. Speed shall be reduced when such conditions exist. If conditions become sufficiently dangerous, the operation of the commercial motor vehicle shall be discontinued and shall not be resumed until the commercial motor vehicle can be safely operated. Whenever compliance with the foregoing provisions of this rule increases hazard to passengers, the commercial motor vehicle may be operated to the nearest point at which the safety of passengers is assured.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.15 [Reserved]**

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### **§ 392.16 Use of seat belts.**

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A commercial motor vehicle which has a seat belt assembly installed at the driver's seat shall not be driven unless the driver has properly restrained himself/herself with the seat belt assembly.

[35 FR 10860, July 3, 1970, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.18 [Reserved]**

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## **Subpart C—Stopped Commercial Motor Vehicles**

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### **§§ 392.20-392.21 [Reserved]**

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### **§ 392.22 Emergency signals; stopped commercial motor vehicles.**

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(a) *Hazard warning signal flashers.* Whenever a commercial motor vehicle is stopped upon the traveled portion of a highway or the shoulder of a highway for any cause other than necessary traffic stops, the driver of the stopped commercial motor vehicle shall immediately activate the vehicular hazard warning signal flashers and continue the flashing until the driver places the warning devices required by paragraph (b) of this section. The flashing signals shall be used during the time the warning devices are picked up for storage before movement of the commercial motor vehicle. The flashing lights may be used at other times while a commercial motor vehicle is stopped in addition to, but not in lieu of, the warning devices required by paragraph (b) of this section.

(b) *Placement of warning devices—(1) General rule.* Except as provided in paragraph (b)(2) of this section, whenever a commercial motor vehicle is stopped upon the traveled portion or the shoulder of a highway for any cause other than necessary traffic stops, the driver shall, as soon as possible, but in any event within 10 minutes, place the warning devices required by §393.95 of this subchapter, in the following manner:

(i) One on the traffic side of and 4 paces (approximately 3 meters or 10 feet) from the stopped commercial motor vehicle in the direction of approaching traffic;

(ii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle and in the direction of approaching traffic; and

(iii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle and in the direction away from approaching traffic.

(2) *Special rules—(i) Fusees and liquid-burning flares.* The driver of a commercial motor vehicle equipped with only fusees or liquid-burning flares shall place a lighted fusee or liquid-burning flare at each of the locations specified in paragraph (b)(1) of this section. There shall be at least one lighted fusee or liquid-burning flare at each of the prescribed locations, as long as the commercial motor vehicle is stopped. Before the stopped commercial motor vehicle is moved, the driver shall extinguish and remove each fusee or liquid-burning flare.

(ii) *Daylight hours.* Except as provided in paragraph (b)(2)(iii) of this section, during the period lighted lamps are not required, three bidirectional reflective triangles, or three lighted fusees or liquid-burning flares shall be placed as specified in paragraph (b)(1) of this section within a time of 10 minutes. In the event the driver elects to use only fusees or liquid-burning flares in lieu of bidirectional reflective triangles or red flags, the driver must ensure that at least one fusee or liquid-burning flare remains lighted at each of the prescribed locations as long as the commercial motor vehicle is stopped or parked.

(iii) *Business or residential districts.* The placement of warning devices is not required within the business or residential district of a municipality, except during the time lighted lamps are required and when street or highway lighting is insufficient to make a commercial motor vehicle clearly discernable at a distance of 500 feet to persons on the highway.

(iv) *Hills, curves, and obstructions.* If a commercial motor vehicle is stopped within 500 feet of a curve, crest of a hill, or other obstruction to view, the driver shall place the warning signal required by paragraph (b)(1) of this section in the direction of the obstruction to view a distance of 100 feet to 500 feet from the stopped commercial motor vehicle so as to afford ample warning to other users of the highway.

(v) *Divided or one-way roads.* If a commercial motor vehicle is stopped upon the traveled portion or the shoulder of a divided or one-way highway, the driver shall place the warning devices required by paragraph (b)(1) of this section, one warning device at a distance of 200 feet and one warning device at a distance of 100 feet in a direction toward approaching traffic in the center of the lane or shoulder occupied by the commercial motor vehicle. He/she shall place one warning device at the traffic side of the commercial motor vehicle within 10 feet of the rear of the commercial motor vehicle.

(vi) *Leaking, flammable material.* If gasoline or any other flammable liquid, or combustible liquid or gas seeps or leaks from a fuel container or a commercial motor vehicle stopped upon a highway, no emergency warning signal producing a flame shall be lighted or placed except at such a distance from any such liquid or gas as will assure the prevention of a fire or explosion.

[37 FR 17175, Aug. 25, 1972, as amended at 40 FR 10685, Mar. 7, 1975; 47 FR 47837, Oct. 28, 1982; 48 FR 57139, Dec. 23, 1983; 59 FR 34711, July 6, 1994; 60 FR 38747, July 28, 1995; 63 FR 33279, June 18, 1998]

## § 392.24 Emergency signals; flame-producing.

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No driver shall attach or permit any person to attach a lighted fusee or other flame-producing emergency signal to any part of a commercial motor vehicle.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.25 Flame producing devices.**

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No driver shall use or permit the use of any flame-producing emergency signal for protecting any commercial motor vehicle transporting Division 1.1, Division 1.2, or Division 1.3 explosives; any cargo tank motor vehicle used for the transportation of any Class 3 or Division 2.1, whether loaded or empty; or any commercial motor vehicle using compressed gas as a motor fuel. In lieu thereof, emergency reflective triangles, red electric lanterns, or red emergency reflectors shall be used, the placement of which shall be in the same manner as prescribed in §392.22(b).

[59 FR 63925, Dec. 12, 1994, as amended at 60 FR 38747, July 28, 1995]

### **Subpart D—Use of Lighted Lamps and Reflectors**

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### **§§ 392.30-392.32 [Reserved]**

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### **§ 392.33 Obscured lamps or reflective devices/material.**

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(a) No commercial motor vehicle shall be driven when any of the lamps or reflective devices/material required by subpart B of part 393 of this title are obscured by the tailboard, or by any part of the load or its covering, by dirt, or other added vehicle or work equipment or otherwise.

(b) *Exception.* The conspicuity treatments on the front end protection devices of the trailer may be obscured by part of the load being transported.

[70 FR 48025, Aug. 15, 2005]

### **Subpart E—License Revocation; Duties of Driver**

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### **§§ 392.40-392.41 [Reserved]**

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### **Subpart F—Fueling Precautions**

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### **§ 392.50 Ignition of fuel; prevention.**

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No driver or any employee of a motor carrier shall:

- (a) Fuel a commercial motor vehicle with the engine running, except when it is necessary to run the engine to fuel the commercial motor vehicle;
- (b) Smoke or expose any open flame in the vicinity of a commercial motor vehicle being fueled;
- (c) Fuel a commercial motor vehicle unless the nozzle of the fuel hose is continuously in contact with the intake pipe of the fuel tank;
- (d) Permit, insofar as practicable, any other person to engage in such activities as would be likely to result in fire or explosion.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.51 Reserve fuel; materials of trade.**

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Small amounts of fuel for the operation or maintenance of a commercial motor vehicle (including its auxiliary equipment) may be designated as materials of trade (see 49 CFR 171.8).

- (a) The aggregate gross weight of all materials of trade on a motor vehicle may not exceed 200 kg (440 pounds).
- (b) Packaging for gasoline must be made of metal or plastic and conform to requirements of 49 CFR Parts 171, 172, 173, and 178 or requirements of the Occupational Safety and Health Administration contained in 29 CFR 1910.106.
- (c) For Packing Group II (including gasoline), Packing Group III (including aviation fuel and fuel oil), or ORM-D, the material is limited to 30 kg (66 pounds) or 30 L (8 gallons).
- (d) For diesel fuel, the capacity of the package is limited to 450 L (119 gallons).
- (e) A Division 2.1 material in a cylinder is limited to a gross weight of 100 kg (220 pounds). (A Division 2.1 material is a flammable gas, including liquefied petroleum gas, butane, propane, liquefied natural gas, and methane).

[63 FR 33279, June 18, 1998]

### **§ 392.52 [Reserved]**

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## **Subpart G—Prohibited Practices**

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### **§ 392.60 Unauthorized persons not to be transported.**

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- (a) Unless specifically authorized in writing to do so by the motor carrier under whose authority the commercial motor vehicle is being operated, no driver shall transport any person or permit any person to be transported on any commercial motor vehicle other than a bus. When such authorization is issued, it shall state the name of the person to be transported, the points where the transportation is to begin and end, and the date upon which such authority expires. No written authorization, however, shall be necessary for the transportation of:

- (1) Employees or other persons assigned to a commercial motor vehicle by a motor carrier;
- (2) Any person transported when aid is being rendered in case of an accident or other emergency;
- (3) An attendant delegated to care for livestock.

(b) This section shall not apply to the operation of commercial motor vehicles controlled and operated by any farmer and used in the transportation of agricultural commodities or products thereof from his/her farm or in the transportation of supplies to his/her farm.

[60 FR 38747, July 28, 1995]

### **§ 392.61 [Reserved]**

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### **§ 392.62 Safe operation, buses.**

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No person shall drive a bus and a motor carrier shall not require or permit a person to drive a bus unless—

- (a) All standees on the bus are rearward of the standee line or other means prescribed in §393.90 of this subchapter;
- (b) All aisle seats in the bus conform to the requirements of §393.91 of this subchapter; and
- (c) Baggage or freight on the bus is stowed and secured in a manner which assures—
  - (1) Unrestricted freedom of movement to the driver and his proper operation of the bus;
  - (2) Unobstructed access to all exits by any occupant of the bus; and
  - (3) Protection of occupants of the bus against injury resulting from the falling or displacement of articles transported in the bus.

[63 FR 33278, June 18, 1998]

### **§ 392.63 Towing or pushing loaded buses.**

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No disabled bus with passengers aboard shall be towed or pushed; nor shall any person use or permit to be used a bus with passengers aboard for the purpose of towing or pushing any disabled motor vehicle, except in such circumstances where the hazard to passengers would be increased by observance of the foregoing provisions of this section, and then only in traveling to the nearest point where the safety of the passengers is assured.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.64 Riding within closed commercial motor vehicles without proper exits.**

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No person shall ride within the closed body of any commercial motor vehicle unless there are means on the inside thereof of obtaining exit. Said means shall be in such condition as to permit ready operation by the occupant.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§ 392.65 [Reserved]**

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### **§ 392.66 Carbon monoxide; use of commercial motor vehicle when detected.**

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(a) No person shall dispatch or drive any commercial motor vehicle or permit any passengers thereon, when the following conditions are known to exist, until such conditions have been remedied or repaired:

- (1) Where an occupant has been affected by carbon monoxide;
- (2) Where carbon monoxide has been detected in the interior of the commercial motor vehicle;
- (3) When a mechanical condition of the commercial motor vehicle is discovered which would be likely to produce a hazard to the occupants by reason of carbon monoxide.

(b) [Reserved]

[60 FR 38747, July 28, 1995]

### **§ 392.67 Heater, flame-producing; on commercial motor vehicle in motion.**

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No open flame heater used in the loading or unloading of the commodity transported shall be in operation while the commercial motor vehicle is in motion.

[33 FR 19732, Dec. 25, 1968, as amended at 60 FR 38747, July 28, 1995]

### **§§ 392.68-392.69 [Reserved]**

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### **§ 392.71 Radar detectors; use and/or possession.**

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(a) No driver shall use a radar detector in a commercial motor vehicle, or operate a commercial motor vehicle that is equipped with or contains any radar detector.

(b) No motor carrier shall require or permit a driver to violate paragraph (a) of this section.

[58 FR 67375, Dec. 21, 1993]

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### **PART 393—PARTS AND ACCESSORIES NECESSARY FOR SAFE OPERATION**

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**Authority:** 49 U.S.C. 322, 31136, and 31502; Section 1041(b) of Pub. L. 102–240, 105 Stat. 1914, 1993 (1991); and 49 CFR 1.73.

**Source:** 33 FR 19735, Dec. 25, 1968, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 393 appear at 66 FR 49874, Oct. 1, 2001.

### **Subpart A—General**

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**Source:** 53 FR 49384, Dec. 7, 1988, unless otherwise noted.

#### **§ 393.1 Scope of the rules in this part.**

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(a) The rules in this part establish minimum standards for commercial motor vehicles as defined in §390.5 of this title. Only motor vehicles (as defined in §390.5) and combinations of motor vehicles which meet the definition of a commercial motor vehicle are subject to the requirements of this part. All requirements that refer to motor vehicles with a GVWR below 4,536 kg (10,001 pounds) are applicable only when the motor vehicle or

combination of motor vehicles meets the definition of a commercial motor vehicle.

(b) Every employer and employee shall comply and be conversant with the requirements and specifications of this part. No employer shall operate a commercial motor vehicle, or cause or permit it to be operated, unless it is equipped in accordance with the requirements and specifications of this part.

[70 FR 48025, Aug. 15, 2005]

### **§ 393.3 Additional equipment and accessories.**

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Nothing contained in this subchapter shall be construed to prohibit the use of additional equipment and accessories, not inconsistent with or prohibited by this subchapter, provided such equipment and accessories do not decrease the safety of operation of the motor vehicles on which they are used.

### **§ 393.5 Definitions.**

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As used in this part, the following words and terms are construed to mean:

*Aggregate working load limit.* The summation of the working load limits or restraining capacity of all devices used to secure an article of cargo on a vehicle.

*Agricultural commodity trailer.* A trailer that is designed to transport bulk agricultural commodities in off-road harvesting sites and to a processing plant or storage location, as evidenced by skeletal construction that accommodates harvest containers, a maximum length of 28 feet, and an arrangement of air control lines and reservoirs that minimizes damage in field operations.

*Air brake system.* A system, including an air-over-hydraulic brake subsystem, that uses air as a medium for transmitting pressure or force from the driver control to the service brake, but does not include a system that uses compressed air or vacuum only to assist the driver in applying muscular force to hydraulic or mechanical components.

*Air-over-hydraulic brake subsystem.* A subsystem of the air brake system that uses compressed air to transmit a force from the driver control to a hydraulic brake system to actuate the service brakes.

*Anchor point.* Part of the structure, fitting or attachment on a vehicle or article of cargo to which a tiedown is attached.

*Antilock Brake System or ABS* means a portion of a service brake system that automatically controls the degree of rotational wheel slip during braking by:

- (1) Sensing the rate of angular rotation of the wheels;
- (2) Transmitting signals regarding the rate of wheel angular rotation to one or more controlling devices which interpret those signals and generate responsive controlling output signals; and
- (3) Transmitting those controlling signals to one or more modulators which adjust brake actuating forces in response to those signals.

*Article of cargo.* A unit of cargo, other than a liquid, gas, or aggregate that lacks physical structure (e.g., grain, gravel, etc.) including articles grouped together so that they can be handled as a single unit or unitized by wrapping, strapping, banding or edge protection device(s).

*Auxiliary driving lamp.* A lighting device mounted to provide illumination forward of the vehicle which supplements the upper beam of a standard headlighting system. It is not intended for use alone or with the lower beam of a standard headlamp system.

*Bell pipe concrete.* Pipe whose flanged end is of larger diameter than its barrel.

*Blocking.* A structure, device or another substantial article placed against or around an article of cargo to prevent horizontal movement of the article of cargo.

*Boat trailer.* A trailer designed with cradle-type mountings to transport a boat and configured to permit launching of the boat from the rear of the trailer.

*Bracing.* A structure, device, or another substantial article placed against an article of cargo to prevent it from tipping, that may also prevent it from shifting.

*Brake.* An energy conversion mechanism used to stop, or hold a vehicle stationary.

*Brake power assist unit.* A device installed in a hydraulic brake system that reduces the operator effort required to actuate the system, but which if inoperative does not prevent the operator from braking the vehicle by a continued application of muscular force on the service brake control.

*Brake power unit.* A device installed in a brake system that provides the energy required to actuate the brakes, either directly or indirectly through an auxiliary device, with the operator action consisting only of modulating the energy application level.

*Brake tubing/hose.* Metallic brake tubing, nonmetallic brake tubing and brake hose are conduits or lines used in a brake system to transmit or contain the medium (fluid or vacuum) used to apply the motor vehicle's brakes.

*Chassis.* The load-supporting frame of a commercial motor vehicle, exclusive of any appurtenances which might be added to accommodate cargo.

*Clearance Lamps.* Lamps that provide light to the front or rear, mounted on the permanent structure of the vehicle, such that they indicate the overall width of the vehicle.

*Container chassis trailer.* A semitrailer of skeleton construction limited to a bottom frame, one or more axles, specially built and fitted with locking devices for the transport of intermodal cargo containers, so that when the chassis and container are assembled, the units serve the same function as an over the road trailer.

*Converter dolly.* A motor vehicle consisting of a chassis equipped with one or more axles, a fifth wheel and/or equivalent mechanism, and drawbar, the attachment of which converts a semitrailer to a full trailer.

*Crib-type log trailer* means a trailer equipped with stakes, bunks, a front-end structure, and a rear structure to restrain logs. The stakes prevent movement of the logs from side to side on the vehicle while the front-end and rear structures prevent movement of the logs from front to back on the vehicle.

*Curb weight.* The weight of a motor vehicle with standard equipment, maximum capacity of fuel, oil, and coolant; and, if so equipped, air conditioning and additional weight of optional engine. Curb weight does not include the driver.

*Dunnage.* All loose materials used to support and protect cargo.

*Dunnage bag.* An inflatable bag intended to fill otherwise empty space between articles of cargo, or between articles of cargo and the wall of the vehicle.

*Edge protector.* A device placed on the exposed edge of an article to distribute tiedown forces over a larger area of cargo than the tiedown itself, to protect the tie-down and/or cargo from damage, and to allow the tiedown to slide freely when being tensioned.

*Electric brake system.* A system that uses electric current to actuate the service brake.

*Emergency brake.* A mechanism designed to stop a motor vehicle after a failure of the service brake system.

*Emergency brake system.* A mechanism designed to stop a vehicle after a single failure occurs in the service brake system of a part designed to contain compressed air or brake fluid or vacuum (except failure of a common valve, manifold brake fluid housing or brake chamber housing).

*Fifth wheel.* A device mounted on a truck tractor or similar towing vehicle (e.g., converter dolly) which interfaces with and couples to the upper

coupler assembly of a semitrailer.

*Frame vehicle.* A vehicle with skeletal structure fitted with one or more bunk units for transporting logs. A bunk unit consists of U-shaped front and rear bunks that together cradle logs. The bunks are welded, gusseted or otherwise firmly fastened to the vehicle's main beams, and are an integral part of the vehicle.

*Friction mat.* A device placed between the deck of a vehicle and article of cargo, or between articles of cargo, intended to provide greater friction than exists naturally between these surfaces.

*Front fog lamp.* A lighting device whose beam provides downward illumination forward of the vehicle and close to the ground, and is to be used only under conditions of rain, snow, dust, smoke or fog. A pair of fog lamps may be used alone, with parking, tail, side, marker, clearance and identification lamps, or with a lower beam headlamp at the driver's discretion in accordance with state and local use law.

*Fuel tank fitting.* Any removable device affixed to an opening in the fuel tank with the exception of the filler cap.

g. The acceleration due to gravity, 32.2 ft/sec<sup>2</sup> (9.81 m/sec<sup>2</sup>).

*Grommet.* A device that serves as a support and protection to that which passes through it.

*Hazard warning signal.* Lamps that flash simultaneously to the front and rear, on both the right and left sides of a commercial motor vehicle, to indicate to an approaching driver the presence of a vehicular hazard.

*Head lamps.* Lamps used to provide general illumination ahead of a motor vehicle.

*Heater.* Any device or assembly of devices or appliances used to heat the interior of any motor vehicle. This includes a catalytic heater which must meet the requirements of §177.834(l)(2) of this title when Class 3 (flammable liquid) or Division 2.1 (flammable gas) is transported.

*Heavy hauler trailer.* A trailer which has one or more of the following characteristics, but which is not a container chassis trailer:

(1) Its brake lines are designed to adapt to separation or extension of the vehicle frame; or

(2) Its body consists only of a platform whose primary cargo-carrying surface is not more than 1,016 mm (40 inches) above the ground in an unloaded condition, except that it may include sides that are designed to be easily removable and a permanent "front-end structure" as that term is used in §393.106 of this title.

*Hook-lift container.* A specialized container, primarily used to contain and transport materials in the waste, recycling, construction/demolition and scrap industries, which is used in conjunction with specialized vehicles, in which the container is loaded and unloaded onto a tilt frame body by an articulating hook-arm.

*Hydraulic brake system.* A system that uses hydraulic fluid as a medium for transmitting force from a service brake control to the service brake, and that may incorporate a brake power assist unit, or a brake power unit.

*Identification lamps.* Lamps used to identify certain types of commercial motor vehicles.

*Integral securement system.* A system on certain roll-on/roll-off containers and hook-lift containers and their related transport vehicles in which compatible front and rear hold down devices are mated to provide securement of the complete vehicle and its articles of cargo.

*Lamp.* A device used to produce artificial light.

*Length of a manufactured home.* The largest exterior length in the traveling mode, including any projections which contain interior space. Length does not include bay windows, roof projections, overhangs, or eaves under which there is no interior space, nor does it include drawbars, couplings or hitches.

*License plate lamp.* A lamp used to illuminate the license plate on the rear of a motor vehicle.

*Longwood.* All logs that are not shortwood, i.e., are over 4.9 m (16 feet) long. Such logs are usually described as long logs or treelength.

*Low chassis vehicle.* (1) A trailer or semitrailer manufactured on or after January 26, 1998, having a chassis which extends behind the rearmost point of the rearmost tires and which has a lower rear surface that meets the guard width, height, and rear surface requirements of §571.224 in effect on the date of manufacture, or a subsequent edition.

(2) A motor vehicle, not described by paragraph (1) of this definition, having a chassis which extends behind the rearmost point of the rearmost tires and which has a lower rear surface that meets the guard configuration requirements of §393.86(b)(1).

*Manufactured home* means a structure, transportable in one or more sections, which in the traveling mode, is eight body feet or more in width or forty body feet or more in length, or, when erected on site, is three hundred twenty or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained therein. Calculations used to determine the number of square feet in a structure will be based on the structure's exterior dimensions measured at the largest horizontal projections when erected on site. These dimensions will include all expandable rooms, cabinets, and other projections containing interior space, but do not include bay windows. This term includes all structures which meet the *above* requirements except the size requirements and with respect to which the manufacturer voluntarily files a certification pursuant to 24 CFR 3282.13 and complies with the standards set forth in 24 CFR part 3280.

*Metal coil* means an article of cargo comprised of elements, mixtures, compounds, or alloys commonly known as metal, metal foil, metal leaf, forged metal, stamped metal, metal wire, metal rod, or metal chain that are packaged as a roll, coil, spool, wind, or wrap, including plastic or rubber coated electrical wire and communications cable

*Multi-piece windshield.* A windshield consisting of two or more windshield glazing surface areas.

*Parking brake system.* A mechanism designed to prevent the movement of a stationary motor vehicle.

*Play.* Any free movement of components.

*Pulpwood trailer.* A trailer or semitrailer that is designed exclusively for harvesting logs or pulpwood and constructed with a skeletal frame with no means for attachment of a solid bed, body, or container.

*Rail vehicle.* A vehicle whose skeletal structure is fitted with stakes at the front and rear to contain logs loaded crosswise.

*Rear extremity.* The rearmost point on a motor vehicle that falls above a horizontal plane located 560 mm (22 inches) above the ground and below a horizontal plane located 1,900 mm (75 inches) above the ground when the motor vehicle is stopped on level ground; unloaded; its fuel tanks are full; the tires (and air suspension, if so equipped) are inflated in accordance with the manufacturer's recommendations; and the motor vehicle's cargo doors, tailgate, or other permanent structures are positioned as they normally are when the vehicle is in motion. Nonstructural protrusions such as taillamps, rubber bumpers, hinges and latches are excluded from the determination of the rearmost point.

*Reflective material.* A material conforming to Federal Specification L-S-300, "Sheeting and Tape, Reflective; Non-exposed Lens, Adhesive Backing," (September 7, 1965) meeting the performance standard in either Table 1 or Table 1A of SAE Standard J594f, "Reflex Reflectors" (January, 1977).

*Reflex reflector.* A device which is used on a vehicle to give an indication to an approaching driver by reflected lighted from the lamps on the approaching vehicle.

*Saddle-mount.* A device, designed and constructed as to be readily demountable, used in driveaway-towaway operations to perform the functions of a conventional fifth wheel:

(1) Upper-half. *Upper-half* of a "saddle-mount" means that part of the device which is securely attached to the towed vehicle and maintains a fixed position relative thereto, but does not include the "king-pin;"

(2) Lower-half. *Lower-half* of a "saddle-mount" means that part of the device which is securely attached to the towing vehicle and maintains a fixed position relative thereto but does not include the "king-pin;" and

(3) King-pin. *King-pin* means that device which is used to connect the "upper-half" to the "lower-half" in such manner as to permit relative movement in a horizontal plane between the towed and towing vehicles.

*Service brake system.* A primary brake system used for slowing and stopping a vehicle.

*Shoring bar.* A device placed transversely between the walls of a vehicle and cargo to prevent cargo from tipping or shifting.

*Shortwood.* All logs typically up to 4.9 m (16 feet) long. Such logs are often described as cut-up logs, cut-to-length logs, bolts or pulpwood. Shortwood may be loaded lengthwise or crosswise, though that loaded crosswise is usually no more than 2.6 m (102 inches) long.

*Sided vehicle.* A vehicle whose cargo compartment is enclosed on all four sides by walls of sufficient strength to contain articles of cargo, where the walls may include latched openings for loading and unloading, and includes vans, dump bodies, and a sided intermodal container carried by a vehicle.

*Side extremity.* The outermost point on a side of the motor vehicle that is above a horizontal plane located 560 mm (22 inches) above the ground, below a horizontal plane located 1,900 mm (75 inches) above the ground, and between a transverse vertical plane tangent to the rear extremity of the vehicle and a transverse vertical plane located 305 mm (12 inches) forward of that plane when the vehicle is unloaded; its fuel tanks are full; and the tires (and air suspension, if so equipped) are inflated in accordance with the manufacturer's recommendations. Non-structural protrusions such as taillights, hinges and latches are excluded from the determination of the outermost point.

*Side marker lamp (Intermediate).* A lamp mounted on the side, on the permanent structure of the motor vehicle that provides light to the side to indicate the approximate middle of the vehicle, when the motor vehicle is 9.14 meters (30 feet) or more in length.

*Side Marker Lamps.* Lamps mounted on the side, on the permanent structure of the motor vehicle as near as practicable to the front and rear of the vehicle, that provide light to the side to indicate the overall length of the motor vehicle.

*Special purpose vehicle.* (1) A trailer or semitrailer manufactured on or after January 26, 1998, having work-performing equipment that, while the motor vehicle is in transit, resides in or moves through the area that could be occupied by the horizontal member of the rear impact guard, as defined by the guard width, height and rear surface requirements of §571.224 (paragraphs S5.1.1 through S5.1.3), in effect on the date of manufacture, or a subsequent edition.

(2) A motor vehicle, not described by paragraph (1) of this definition, having work-performing equipment that, while the motor vehicle is in transit, resides in or moves through the area that could be occupied by the horizontal member of the rear impact guard, as defined by the guard width, height and rear surface requirements of §393.86(b)(1).

*Split service brake system.* A brake system consisting of two or more subsystems actuated by a single control designed so that a leakage-type failure of a pressure component in a single subsystem (except structural failure of a housing that is common to two or more subsystems) shall not impair the operation of any other subsystem.

*Steering wheel lash.* The condition in which the steering wheel may be turned through some part of a revolution without associated movement of the front wheels.

*Stop lamps.* Lamps shown to the rear of a motor vehicle to indicate that the service brake system is engaged.

*Tail lamps.* Lamps used to designate the rear of a motor vehicle.

*Tiedown.* A combination of securing devices which forms an assembly that attaches articles of cargo to, or restrains articles of cargo on, a vehicle or trailer, and is attached to anchor point(s).

*Tow bar.* A strut or column-like device temporarily attached between the rear of a towing vehicle and the front of the vehicle being towed.

*Tractor-pole trailer.* A combination vehicle that carries logs lengthwise so that they form the body of the vehicle. The logs are supported by a bunk located on the rear of the tractor, and another bunk on the skeletal trailer. The tractor bunk may rotate about a vertical axis, and the trailer may have a fixed, scoping, or cabled reach, or other mechanical freedom, to allow it to turn.

*Trailer kingpin.* A pin (with a flange on its lower end) which extends vertically from the front of the underside of a semitrailer and which locks into a fifth wheel.

*Turn signals.* Lamps used to indicate a change in direction by emitting a flashing light on the side of a motor vehicle towards which a turn will be made.

*Upper coupler assembly.* A structure consisting of an upper coupler plate, king-pin and supporting framework which interfaces with and couples to a fifth wheel.

*Upper coupler plate.* A plate structure through which the king-pin neck and collar extend. The bottom surface of the plate contacts the fifth wheel when coupled.

*Vacuum brake system.* A system that uses a vacuum and atmospheric pressure for transmitting a force from the driver control to the service brake, not including a system that uses vacuum only to assist the driver in applying muscular force to hydraulic or mechanical components.

*Void filler.* Material used to fill a space between articles of cargo and the structure of the vehicle that has sufficient strength to prevent movement of the articles of cargo.

*Well.* The depression formed between two cylindrical articles of cargo when they are laid with their eyes horizontal and parallel against each other.

*Wheels back vehicle.* (1) A trailer or semitrailer manufactured on or after January 26, 1998, whose rearmost axle is permanently fixed and is located such that the rearmost surface of the tires (of the size recommended by the vehicle manufacturer for the rear axle) is not more than 305 mm (12 inches) forward of the transverse vertical plane tangent to the rear extremity of the vehicle.

(2) A motor vehicle, not described by paragraph (1) of this definition, whose rearmost axle is permanently fixed and is located such that the rearmost surface of the tires (of the size recommended by the vehicle manufacturer for the rear axle) is not more than 610 mm (24 inches) forward of the transverse vertical plane tangent to the rear extremity of the vehicle.

*Width of a manufactured home.* The largest exterior width in the traveling mode, including any projections which contain interior space. Width does not include bay windows, roof projections, overhangs, or eaves under which there is no interior space.

*Windshield.* The principal forward facing glazed surface provided for forward vision in operating a motor vehicle.

*Working load limit (WLL).* The maximum load that may be applied to a component of a cargo securement system during normal service, usually assigned by the manufacturer of the component.

[53 FR 49384, Dec. 7, 1988, as amended at 63 FR 8339, Feb. 18, 1998; 63 FR 24465, May 4, 1998; 64 FR 47707, Sept. 1, 1999; 67 FR 61224, Sept. 27, 2002; 68 FR 56208, Sept. 30, 2003; 70 FR 48026, Aug. 15, 2005; 71 FR 35832, June 22, 2006]

### **§ 393.7 Matter incorporated by reference.**

[↑ top](#)

(a) *Incorporation by reference.* Part 393 includes references to certain matter or materials, as listed in paragraph (b) of this section. The text of the materials is not included in the regulations contained in part 393. The materials are hereby made a part of the regulations in part 393. The Director of the Federal Register has approved the materials incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For materials subject to change, only the specific version approved by the Director of the Federal Register and specified in the regulation are incorporated. Material is incorporated as it exists on the date of the approval and a notice of any change in these materials will be published in the Federal Register.

(b) *Matter or materials referenced in part 393.* The matter or materials listed in this paragraph are incorporated by reference in the corresponding sections noted.

(1) Auxiliary Upper Beam Lamps, Society of Automotive Engineers (SAE) J581, July 2004, incorporation by reference approved for §393.24(b).

(2) Front Fog Lamp, SAE J583, August 2004, incorporation by reference approved for §393.24(b).

(3) Stop Lamps for Use on Motor Vehicles Less Than 2032 mm in Overall Width, SAE J586, March 2000, incorporation by reference approved for §393.25(c).

(4) Stop Lamps and Front- and Rear-Turn Signal Lamps for Use on Motor Vehicles 2032 mm or more in Overall Width, SAE J2261, January 2002, incorporated by reference approved for §393.25 (c).

- (5) Tail Lamps (Rear Position Lamps) for Use on Motor Vehicles Less Than 2032 mm in Overall Width, SAE J585, March 2000, incorporation by reference approved for §393.25(c).
- (6) Tail Lamps (Rear Position Lamps) for Use on Vehicles 2032 mm or More in Overall Width, SAE J2040, March 2002, incorporation by reference approved for §393.25(c).
- (7) Turn Signal Lamps for Use on Motor Vehicles Less Than 2032 mm in Overall Width, SAE J588, March 2000, incorporation by reference approved for §393.25(c).
- (8) Sidemarker Lamps for Use on Road Vehicles Less Than 2032 mm in Overall Width, SAE J592, August 2000, incorporation by reference approved for §393.25(c).
- (9) Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles, SAE J595, January 2005, incorporation by reference approved for §393.25(e).
- (10) Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles, SAE J845, May 1997, incorporation by reference approved for §393.25(e).
- (11) Gaseous Discharge Warning Lamp for Authorized Emergency, Maintenance, and Service Vehicles, SAE J1318, May 1998, incorporation by reference approved for §393.25(e).
- (12) Reflex Reflectors, SAE J594, December 2003, incorporation by reference approved for §393.26(c).
- (13) Standard Specification for Retroreflective Sheeting for Traffic Control, American Society of Testing and Materials, ASTM D 4956–04, 2004, incorporation by reference approved for §393.26(c).
- (14) Automobile, Truck, Truck-Tractor, Trailer, and Motor Coach Wiring, SAE J1292, October 1981, incorporated by reference approved for §393.28.
- (15) Long Stroke Air Brake Actuator Marking, SAE J1817, July 2001, incorporation by reference approved for §393.47(e).
- (16) American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways-Safety Standard, SAE Z26.1–1996, August 1997, incorporation by reference approved for §393.62(d).
- (17) Specification for Sound Level Meters, American National Standards Institute, S1.4–1983, incorporation by reference approved for §393.94(c).
- (18) Standard Specification for Strapping, Flat Steel and Seals, American Society for Testing and Materials (ASTM), D3953–97, February 1998, incorporation by reference approved for §393.104(e).
- (19) Welded Steel Chain Specifications, National Association of Chain Manufacturers, September 28, 2005, incorporation by reference approved for §393.104(e).
- (20) Recommended Standard Specification for Synthetic Web Tiedowns, Web Sling and Tiedown Association, WSTDA-T1, 1998, incorporation by reference approved for §393.104(e).
- (21) Wire Rope Users Manual, 2nd Edition, Wire Rope Technical Board November 1985, incorporation by reference approved for §393.104(e).
- (22) Cordage Institute rope standards approved for incorporation into §393.104(e):
- (i) PETRS–2, Polyester Fiber Rope, 3-Strand and 8-Strand Constructions, January 1993;
  - (ii) PPRS–2, Polypropylene Fiber Rope, 3-Strand and 8-Strand Constructions, August 1992;
  - (iii) CRS–1, Polyester/Polypropylene Composite Rope Specifications, Three-Strand and Eight-Strand Standard Construction, May 1979;



(iv) NRS-1, Nylon Rope Specifications, Three-Strand and Eight-Strand Standard Construction, May 1979; and

(v) C-1, Double Braided Nylon Rope Specifications DBN, January 1984.

(c) *Availability.* The materials incorporated by reference are available as follows:

(1) Standards of the Underwriters Laboratories, Inc. Information and copies may be obtained by writing to: Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.

(2) Specifications of the American Society for Testing and Materials. Information and copies may be obtained by writing to: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959.

(3) Specifications of the National Association of Chain Manufacturers. Information and copies may be obtained by writing to: National Association of Chain Manufacturers, P.O. Box 22681, Lehigh Valley, Pennsylvania 18002-2681.

(4) Specifications of the Web Sling and Tiedown Association. Information and copies may be obtained by writing to: Web Sling and Tiedown Association, Inc., 5024-R Campbell Boulevard, Baltimore, Maryland 21236-5974.

(5) Manuals of the Wire Rope Technical Board. Information and copies may be obtained by writing to: Wire Rope Technical Committee, P.O. Box 849, Stevensville, Maryland 21666.

(6) Standards of the Cordage Institute. Information and copies may be obtained by writing to: Cordage Institute, 350 Lincoln Street, # 115, Hingham, Massachusetts 02043.

(7) Standards of the Society of Automotive Engineers (SAE). Information and copies may be obtained by writing to: Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, Pennsylvania 15096.

(8) Standards of the American National Standards Institute (ANSI). Information and copies may be obtained by writing to: American National Standards Institute, 25 West 43rd Street, New York, New York 10036.

(9) [Reserved].

(10) All of the materials incorporated by reference are available for inspection at:

(i) The Federal Motor Carrier Safety Administration, Office of Bus and Truck Standards and Operations, 400 Seventh Street, SW., Washington, DC 20590; and

(ii) The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

[67 FR 61225, Sept. 27, 2002, as amended at 70 FR 48027, Aug. 15, 2005; 71 FR 35832, June 22, 2006]

## **Subpart B—Lamps, Reflective Devices, and Electrical Wiring**

 [top](#)

### **§ 393.9 Lamps operable, prohibition of obstructions of lamps and reflectors.**

 [top](#)

(a) All lamps required by this subpart shall be capable of being operated at all times. This paragraph shall not be construed to require that any auxiliary or additional lamp be capable of operating at all times.

(b) Lamps and reflective devices/material required by this subpart must not be obscured by the tailboard, or by any part of the load, or its covering by dirt, or other added vehicle or work equipment, or otherwise. Exception: The conspicuity treatments on the front end protection devices may be

obscured by part of the load being transported.

[70 FR 48027, Aug. 15, 2005]

**§ 393.11 Lamps and reflective devices.**

[↑ top](#)

(a)(1) *Lamps and reflex reflectors.* Table 1 specifies the requirements for lamps, reflective devices and associated equipment by the type of commercial motor vehicle. The diagrams in this section illustrate the position of the lamps, reflective devices and associated equipment specified in Table 1. All commercial motor vehicles manufactured on or after December 25, 1968, must, at a minimum, meet the applicable requirements of 49 CFR 571.108 (FMVSS No. 108) in effect at the time of manufacture of the vehicle. Commercial motor vehicles manufactured before December 25, 1968, must, at a minimum, meet the requirements of subpart B of part 393 in effect at the time of manufacture.

(2) *Exceptions:* Pole trailers and trailer converter dollies must meet the part 393 requirements for lamps, reflective devices and electrical equipment in effect at the time of manufacture. Trailers which are equipped with conspicuity material which meets the requirements of §393.11(b) are not required to be equipped with the reflex reflectors listed in Table 1 if—

(i) The conspicuity material is placed at the locations where reflex reflectors are required by Table 1; and

(ii) The conspicuity material when installed on the motor vehicle meets the visibility requirements for the reflex reflectors.

(b) *Conspicuity Systems.* Each trailer of 2,032 mm (80 inches) or more overall width, and with a GVWR over 4,536 kg (10,000 pounds), manufactured on or after December 1, 1993, except pole trailers and trailers designed exclusively for living or office use, shall be equipped with either retroreflective sheeting that meets the requirements of FMVSS No. 108 (S5.7.1), reflex reflectors that meet the requirements FMVSS No. 108 (S5.7.2), or a combination of retroreflective sheeting and reflex reflectors that meet the requirements of FMVSS No. 108 (S5.7.3). The conspicuity system shall be installed and located as specified in FMVSS No. 108 [S5.7.1.4 (for retroreflective sheeting), S5.7.2.2 (for reflex reflectors), S5.7.3 (for a combination of sheeting and reflectors)] and have certification and markings as required by S5.7.1.5 (for retroreflective tape) and S5.7.2.3 (for reflex reflectors).

(c) *Prohibition on the use of amber stop lamps and tail lamps.* No commercial motor vehicle may be equipped with an amber stop lamp, a tail lamp, or other lamp which is optically combined with an amber stop lamp or tail lamp.

(d) *Prohibition on the use of auxiliary lamps that supplement the identification lamps.* No commercial motor vehicle may be equipped with lamps that are in a horizontal line with the required identification lamps unless those lamps are required by this regulation.

Table 1\_Required Lamps and

Reflectors on Commercial Motor Vehicles

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Height above

the road

surface in

millimeters

(mm) (with

Item on the vehicle  
Location Position  
devices

Quantity  
English units

Color  
Vehicles for which the

in parenthesis)

are required

measured from  
the center of  
the lamp at  
curb weight

-----  
-----  
Headlamps..... 2 White.....  
Front..... On the front at Not less than A, B, C  
the same 559 mm (22  
height, with inches) nor  
an equal more than  
number at each 1,372 mm (54  
side of the inches).

vertical  
center line as  
far apart as

practicable.  
Turn signal (front). See 2 Amber..... At  
or near the One on each Not less than A, B, C  
footnotes #2 and 12.  
front. side of the 381 mm (15  
vertical inches) nor  
centerline at more than  
the same 2,108 mm (83  
height and as inches).

far apart as

practicable.  
Identification lamps (front). See 3 Amber.....  
Front..... As close as All three on B, C  
footnote #1.  
practicable to the same level  
the top of the as close as  
vehicle, at practicable to  
the same the top of the

height, and as motor vehicle.

close as

practicable to

the vertical

centerline of

the vehicle

(or the

vertical

centerline of

the cab where

different from

the centerline

of the

vehicle) with

lamp centers

spaced not

less than 152

mm (6 inches)

or more than

305 mm (12

inches) apart.

Alternatively,

the front

lamps may be

located as

close as

practicable to

the top of the

cab.  
 Tail lamps. See footnotes #5 and 2 Red.....  
 Rear..... One lamp on Both on the A, B, C, D, E, F, G,  
 H

11.  
 each side of same level  
 the vertical between 381 mm  
 centerline at (15 inches)  
 the same and 1,829 mm  
 height and as (72 inches).  
 far apart as  
 practicable.

-----  
 -----  
 -----

Table 1\_Required Lamps and  
 Reflectors on Commercial Motor Vehicles

-----  
 -----  
 -----

Height above  
 the road  
 surface in  
 millimeters

(mm) (with  
 Item on the vehicle                      Quantity                      Color  
 Location                      Position                      English units                      Vehicles for which the  
 devices

in parenthesis)                      are required

measured from  
 the center of  
 the lamp at  
 curb weight

-----  
 -----  
 -----

Stop lamps. See footnotes #5 and 2 Red.....  
 Rear..... One lamp on Both on the A, B, C, D, E, F, G  
 13.  
 each side of same level  
 the vertical between 381 mm  
 centerline at (15 inches)  
 the same and 1,829 mm  
 height and as (72 inches).  
 far apart as

practicable.  
 Clearance lamps. See footnotes 2 Amber.....  
 One on each One on each Both on the B, C, D, G, H side  
 #8, 9, 10, 15 & 17.  
 of the side of the same level as  
 front of the vertical high as  
 vehicle. centerline to practicable.  
 indicate

overall width.  
 One on each One on each 2 Red.....  
 side of the side of the Both on the B, D, G, H  
 rear of the vertical same level as  
 vehicle. centerline to high as  
 indicate practicable.

overall width.  
 Reflex reflector, intermediate 2 Amber.....  
 One on each At or near the Between 381 mm A, B, D, F, G  
 (side).  
 side. midpoint (15inches) and  
 between the 1,524 (60  
 front and rear inches).  
 side marker  
 lamps, if the  
 length of the  
 vehicle is

more than

9,144 mm (30

feet).

Reflex reflector (rear). See  
Rear..... One on each  
footnotes #5, 6, and 8.  
side of the same level,

2 Red.....  
Both on the A, B, C, D, E, F, G

vertical between 381 mm

centerline, as (15 inches)

far apart as and 1,524 mm

practicable (60 inches).

and at the

same height.

Reflex reflector (rear side).....  
One on each As far to the

2 Red.....  
Both on the A, B, D, F, G

side (rear). rear as same level,

practicable. between 381 mm

(15 inches)

and 1,524 mm

(60 inches).

Reflex reflector (front side).  
One on each As far to the  
See footnote #16.  
side (front). front as

2 Amber.....  
Between 381 mm A, B, C, D, F, G  
(15 inches)

practicable. and 1,524 mm

(60 inches).

License plate lamp (rear). See  
rear license  
footnote #11.  
plate to

1 White..... At  
No requirements A, B, C, D, F, G

illuminate the

plate from the

top or sides.

Side marker lamp (front). See  
One on each As far to the  
footnote #16.  
side. front as

2 Amber.....  
Not less than A, B, C, D, F  
381 mm (15

practicable. inches).  
Side marker lamp intermediate.... 2 Amber.....  
One on each At or near the Not less than A, B, D, F, G

side. midpoint 381 mm (15  
between the inches).

front and rear

side marker

lamps, if the

length of the

vehicle is

more than

9,144 mm (30

feet).

Side marker lamp (rear). See 2 Red.....  
One on each As far to the Not less than A, B, D, F, G  
footnotes #4 and 8.

side. rear as 381 mm (15

practicable. inches), and

on the rear of

trailers not

more than

1,524 mm (60

inches).

Turn signal (rear). See footnotes 2 Amber or red.....  
Rear..... One lamp on Both on the A, B, C, D, E, F, G  
#5 and 12.

each side of same level,

the vertical between 381 mm

centerline as (15 inches)

far apart as and 2,108 mm

practicable. (83 inches).

Identification lamp (rear). See 3 Red.....  
Rear..... One as close as All three on B, D, G  
footnotes #3, 7, and 15.

practicable to the same level



the vertical as close as  
centerline. practicable to  
One on each the top of the  
side with lamp vehicle.  
centers spaced  
not less than  
152 mm (6  
inches) or  
more than 305  
mm (12 inches)

apart.

Vehicular hazard warning signal  
Front..... One lamp on  
flasher lamps. See footnotes #5  
each side of same level,  
and 12.

2 Amber.....  
Both on the A, B, C

the vertical between 381 mm  
centerline, as (15 inches)  
far apart as and 2,108 mm  
practicable. (83 inches).

Rear..... One lamp on  
each side of same level,  
the vertical between 381 mm  
centerline, as (15 inches)  
far apart as and 2,108 mm  
practicable. (83 inches).

2 Amber or red.....  
Both on the A, B, C, D, E, F, G

Backup lamp. See footnote #14....  
Rear..... Rear.....  
Parking lamp.....  
Front..... One lamp on

1 or 2 White.....  
No requirement. A, B, C  
2 Amber or white.....  
Both on the A

each side of same level,  
the vertical between 381 mm  
centerline, as (15 inches)

far apart as            and 2,108 mm

practicable.            (83 inches).

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Legend: Types of commercial motor vehicles shown in the last column of Table 1.

A. Buses and trucks less than 2,032 mm (80 inches) in overall width.

B. Buses and trucks 2,032 mm (80 inches) or more in overall width.

C. Truck tractors.

D. Semitrailers and full trailers 2,032 mm (80 inches) or more in overall width except converter dollies.

E. Converter dolly.

F. Semitrailers and full trailers less than 2,032 mm (80 inches) in overall width.

G. Pole trailers.

H. Projecting loads.

Note: Lamps and reflectors may be combined as permitted by § 393.22 and S5.4 of 49 CFR 571.108, Equipment combinations.

Footnote\_1 Identification lamps may be mounted on the vertical centerline of the cab where different from the centerline of the vehicle, except where

the cab is not more than 42 inches wide at the front roofline, then a single lamp at the center of the cab shall be deemed to comply with the

requirements for identification lamps. No part of the identification lamps or their mountings may extend below the top of the vehicle windshield.

Footnote\_2 Unless the turn signals on the front are so constructed (double-faced) and located as to be visible to passing drivers, two turn signals are

required on the rear of the truck tractor, one at each side as far apart as practicable.

Footnote\_3 The identification lamps need not be visible or lighted if obscured by a vehicle in the same combination.

Footnote\_4 Any semitrailer or full trailer manufactured on or after March 1, 1979, shall be equipped with rear side-marker lamps at a height of not less

than 381 mm (15 inches), and on the rear of trailers not more than 1,524 mm (60 inches) above the road surface, as measured from the center of the

lamp on the vehicle at curb weight.

Footnote\_5 Each converter dolly, when towed singly by another vehicle and not as part of a full trailer, shall be equipped with one stop lamp, one tail

lamp, and two reflectors (one on each side of the vertical centerline, as far apart as practicable) on the rear. Each converter dolly shall be

equipped with rear turn signals and vehicular hazard warning signal flasher lamps when towed singly by another vehicle and not as part of a full

trailer, if the converter dolly obscures the turn signals at the rear of the towing vehicle.

Footnote\_6 Pole trailers shall be equipped with two reflex reflectors on the rear, one on each side of the vertical centerline as far apart as practicable, to indicate the extreme width of the trailer.

Footnote\_7 Pole trailers, when towed by motor vehicles with rear identification lamps meeting the requirements of § 393.11 and mounted at a height

greater than the load being transported on the pole trailer, are not required to have rear identification lamps.

Footnote\_8 Pole trailers shall have on the rearmost support for the load: (1) two front clearance lamps, one on each side of the vehicle, both on the

same level and as high as practicable to indicate the overall width of the pole trailer; (2) two rear clearance lamps, one on each side of the

vehicle, both on the same level and as high as practicable to indicate the overall width of the pole trailer; (3) two rear side marker lamps, one on

each side of the vehicle, both on the same level, not less than 375 mm (15 inches) above the road surface; (4) two rear reflex reflectors, one on each

side, both on the same level, not less than 375 mm (15 inches) above the road surface to indicate maximum width of the pole trailer; and (5) one red

reflector on each side of the rearmost support for the load. Lamps and reflectors may be combined as allowed in § 393.22.

Footnote\_9 Any motor vehicle transporting a load which extends more than 102 mm (4 inches) beyond the overall width of the motor vehicle shall be

equipped with the following lamps in addition to other required lamps when operated during the hours when headlamps are required to be used.

(1) The foremost edge of that portion of the load which projects beyond the side of the vehicle shall be marked (at its outermost extremity) with an

amber lamp visible from the front and side.

(2) The rearmost edge of that portion of the load which projects beyond the side of the vehicle shall be marked (at its outermost extremity) with a red

lamp visible from the rear and side.

(3) If the projecting load does not measure more than 914 mm (3 feet) from front to rear, it shall be marked with an amber lamp visible from the front,

both sides, and rear, except that if the projection is located at or near the rear it shall be marked by a red lamp visible from front, side, and

rear.

Footnote\_10 Projections beyond rear of motor vehicles. Motor vehicles transporting loads which extend more than 1,219 mm (4 feet) beyond the rear of the

motor vehicle, or which have tailboards or tailgates extending more than 1,219 mm (4 feet) beyond the body, shall have these projections marked as

follows when the vehicle is operated during the hours when headlamps are required to be used:

(1) On each side of the projecting load, one red side marker lamp, visible from the side, located so as to indicate maximum overhang.

(2) On the rear of the projecting load, two red lamps, visible from the rear, one at each side; and two red reflectors visible from the rear, one at

each side, located so as to indicate maximum width.

Footnote\_11 To be illuminated when tractor headlamps are illuminated.

Footnote\_12 Every bus, truck, and truck tractor shall be equipped with a signaling system that, in addition to signaling turning movements, shall have a

switch or combination of switches that will cause the two front turn signals and the two rear signals to flash simultaneously as a vehicular traffic

signal warning, required by § 392-22(a). The system shall be capable of flashing simultaneously with the ignition of the vehicle on or off.

Footnote\_13 To be actuated upon application of service brakes.

Footnote\_14 Backup lamp required to operate when bus, truck, or truck tractor is in reverse.

Footnote\_15

(1) For the purposes of Section 393.11, the term ``overall width'' refers to the nominal design dimension of the widest part of the vehicle, exclusive

of the signal lamps, marker lamps, outside rearview mirrors, flexible fender extensions, and mud flaps.

(2) Clearance lamps may be mounted at a location other than on the front and rear if necessary to indicate the overall width of a vehicle, or for protection from damage during normal operation of the vehicle.

(3) On a trailer, the front clearance lamps may be mounted at a height below the extreme height if mounting at the extreme height results in the lamps

failing to mark the overall width of the trailer.

(4) On a truck tractor, clearance lamps mounted on the cab may be located to indicate the width of the cab, rather than the width of the vehicle.

(5) When the rear identification lamps are mounted at the extreme height of a vehicle, rear clearance lamps are not required to be located as close as

practicable to the top of the vehicle.

Footnote\_16 A trailer subject to this part that is less than 1829 mm (6 feet) in overall length, including the trailer tongue, need not be equipped with

front side marker lamps and front side reflex reflectors.

Footnote\_17 A boat trailer subject to this part whose overall width is 2032 mm (80 inches) or more need not be equipped with both front and rear

clearance lamps provided an amber (front) and red (rear) clearance lamp is located at or near the midpoint on each side so as to indicate its extreme

width.

Figure 1 - Truck Tractor Illustration for § 393.11

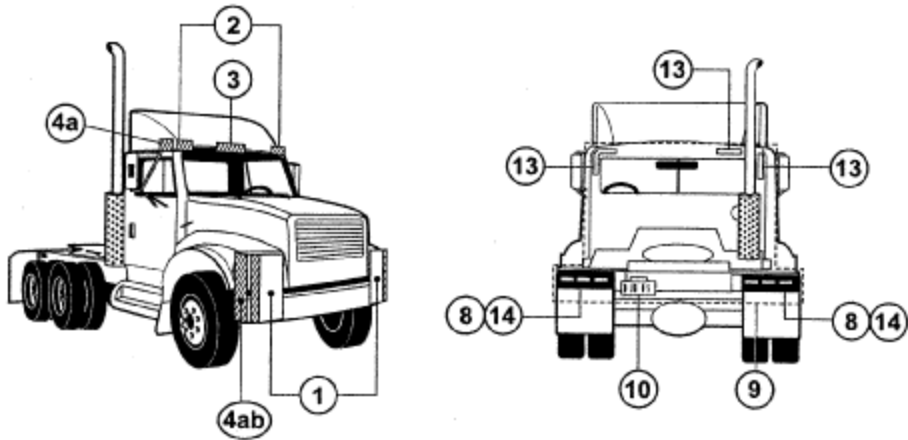
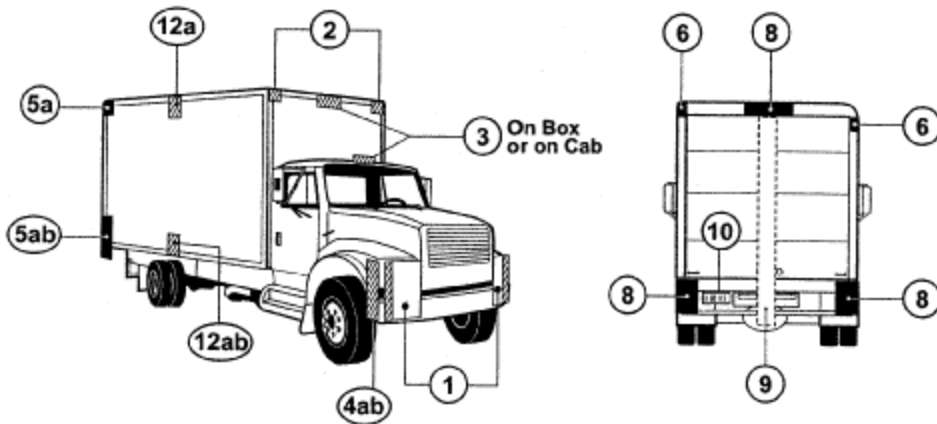


Figure 2 - Straight Truck Illustration for § 393.11



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Figure 3 - Straight Truck Illustration for § 393.11

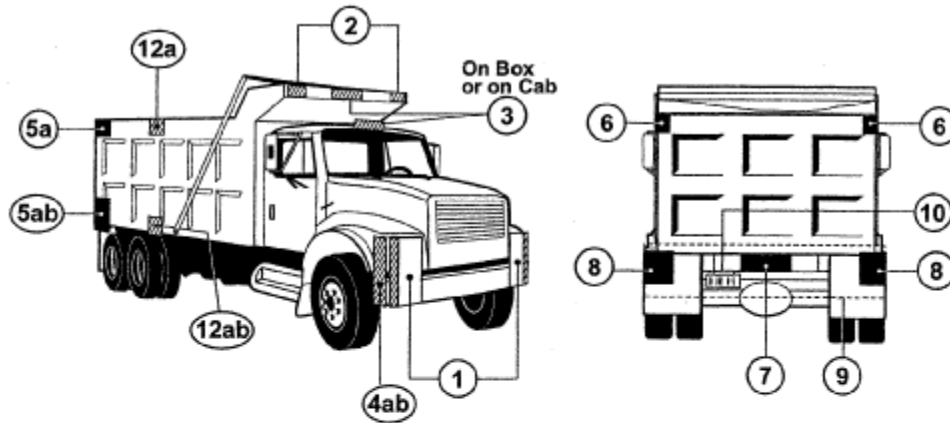
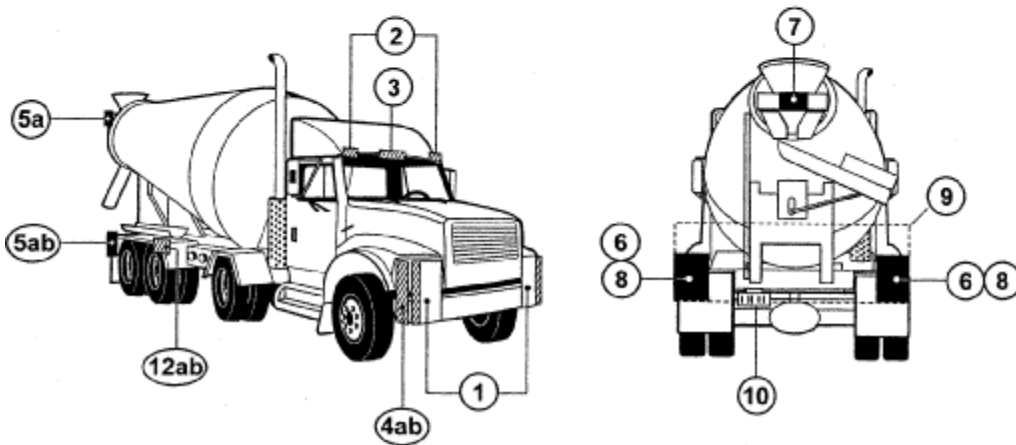


Figure 4 - Straight Truck Illustration for § 393.11



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Figure 5 - Straight Truck Illustration for § 393.11

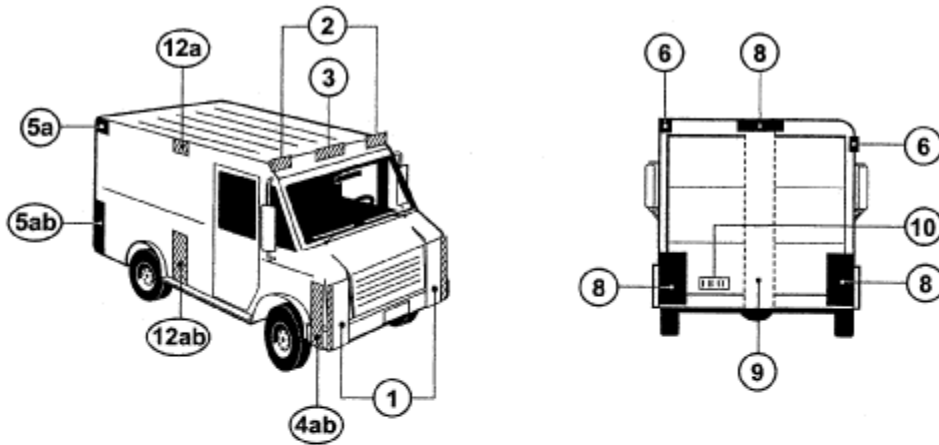
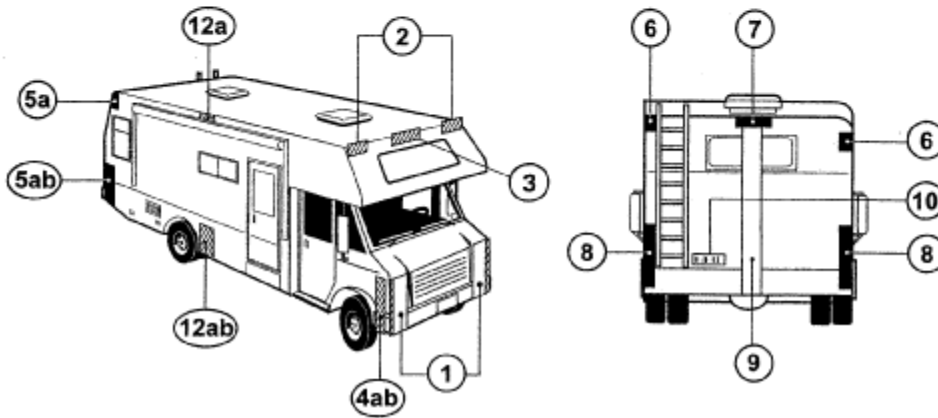
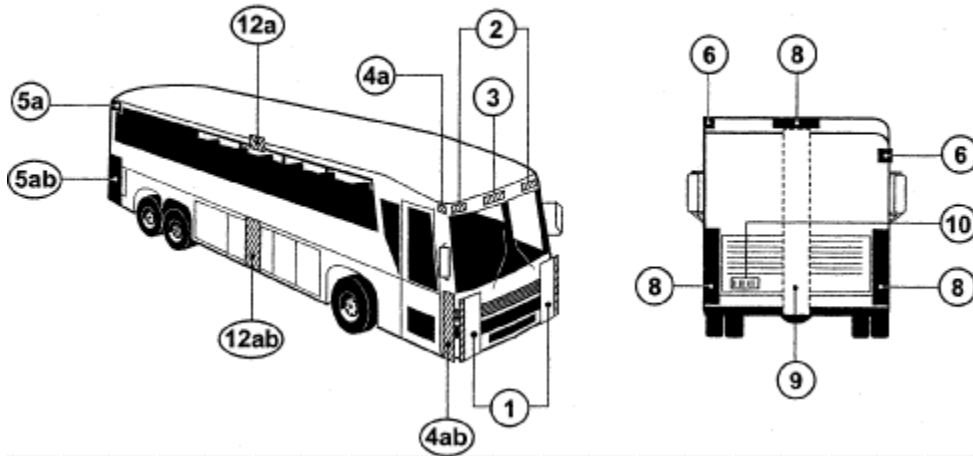


Figure 6 - Straight Truck Illustration for § 393.11



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Figure 7 - Bus Illustration for § 393.11



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**LEGEND FOR FIGURES 1 THROUGH 7 - 49 CFR 393.11  
TRUCK & BUS VEHICLE ILLUSTRATIONS  
(DOES NOT APPLY TO FIGURES 8 THROUGH 18 FOR TRAILERS)**

Area	Equipment
①	Headlamps - Lower Beam
	Headlamps - Upper Beam
	Parking Lamps - Attention: <i>Required only on vehicles less than 2032mm wide</i>
	Front Turn Signal/Hazard Warning Lamps
②	Front Clearance Lamps - Attention: <i>Required for vehicles 2032mm wide or wider</i>
③	Front Identification Lamps (ID)
④a	Front Side Marker Lamps
④b	Front Side Reflex Reflectors
⑤a	Rear Side Marker Lamps - <i>Not required on Truck Tractors</i>
⑤b	Rear Side Reflex Reflectors - <i>Not required on Truck Tractors</i>
⑥	Rear Clearance Lamps Attention: <i>Required for vehicles 2032mm wide or wider, but not required on Truck Tractors</i>
⑦	Rear Identification Lamps (ID) Attention: <i>Required for vehicles 2032mm wide or wider, but not required on Truck Tractors</i>
⑧	Tail Lamps
	Stop Lamps
	Rear Turn Signal/Hazard Warning Lamps
	Rear Reflex Reflectors
⑨	Backup Lamp
⑩	License Plate Lamp
⑪	Center High Mounted Stop Lamp Attention: <i>Required for vehicles less than 2032mm wide and 4536kg</i>

**ADDITIONAL EQUIPMENT FOR SPECIFIC TRUCKS AND BUS VEHICLES**

Area	Equipment
⑫a	Intermediate Side Marker Lamps
⑫b	Intermediate Side Reflex Reflectors

**TRUCK TRACTORS**

DESCRIPTION	
Area	Conspicuity Treatment
⑬	Rear Upper Body Marking
⑭	Rear Marking

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Figure 8 - Semi-Trailer Illustration for § 393.11

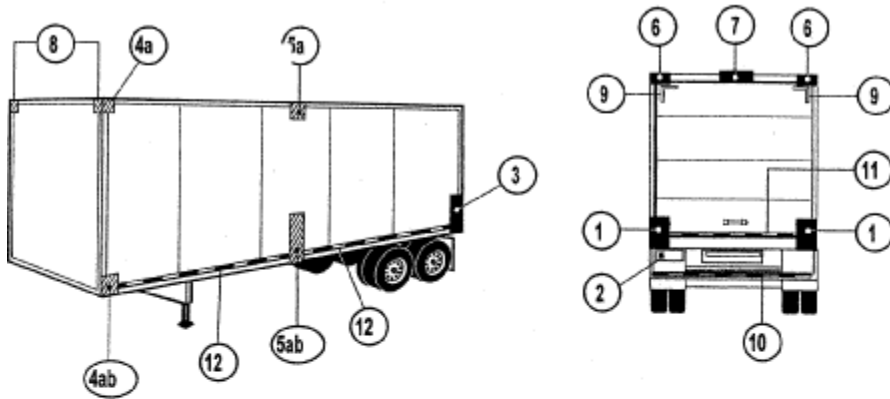
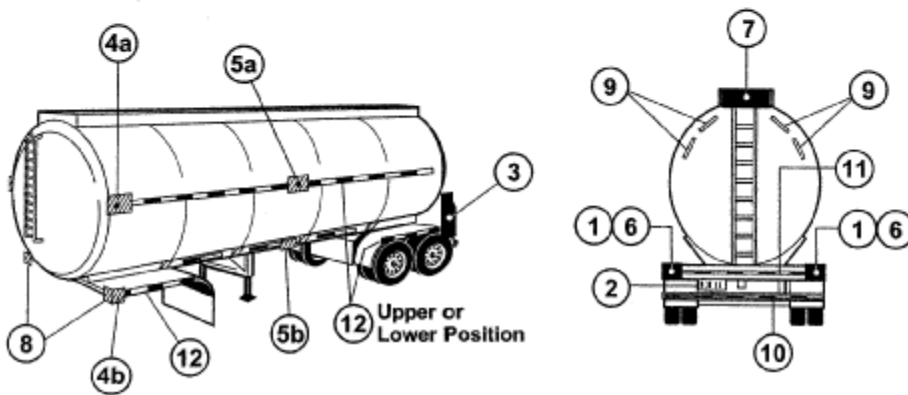


Figure 9 - Semi-Trailer Illustration for § 393.11



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Figure 10 - Semi-Trailer Illustration for § 393.11

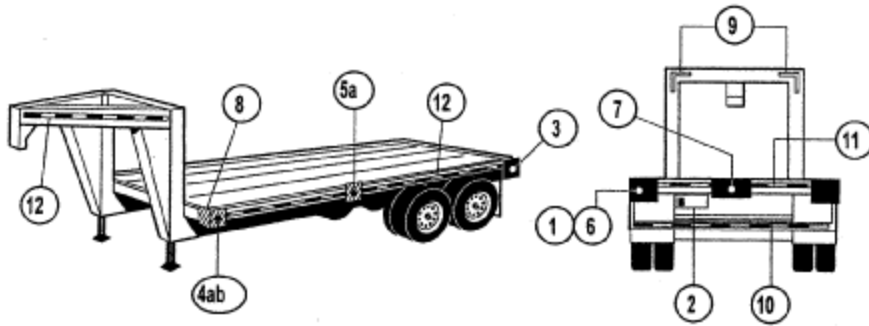
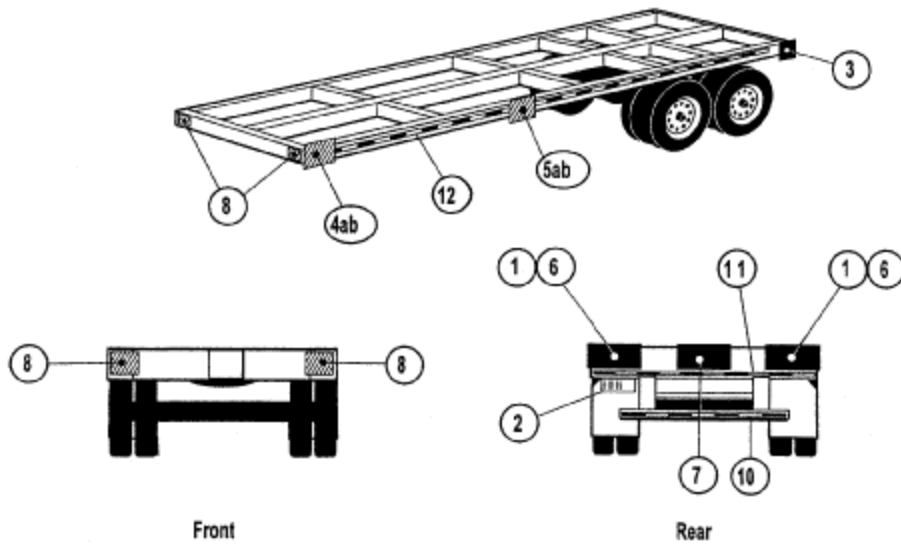
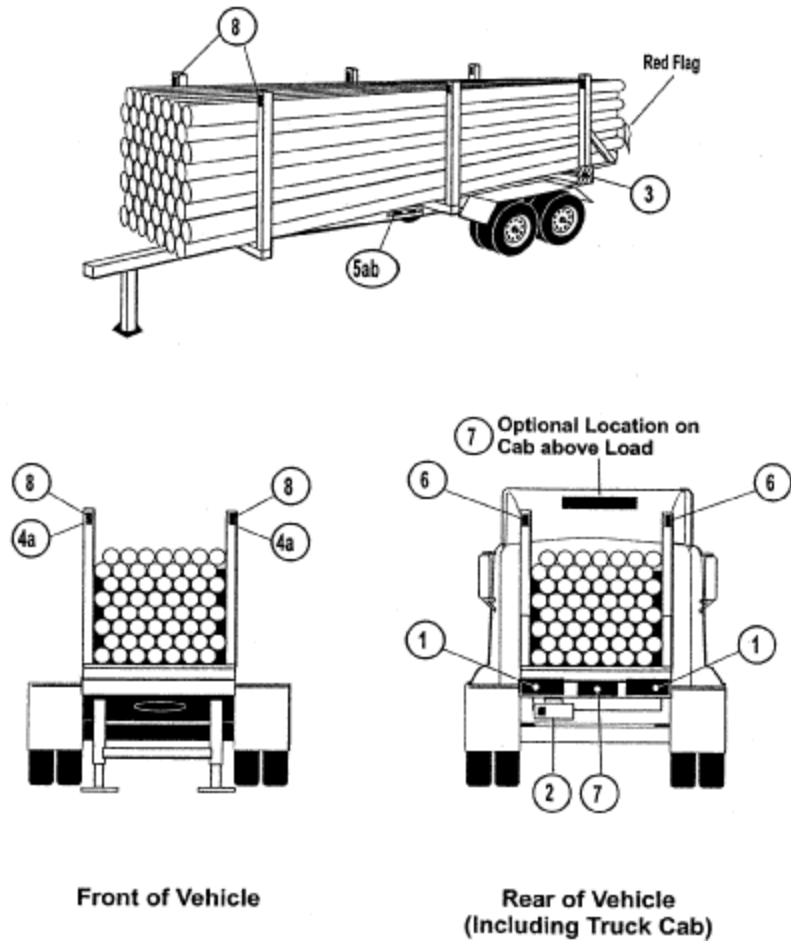


Figure 11 - Container Chassis Illustration for § 393.11



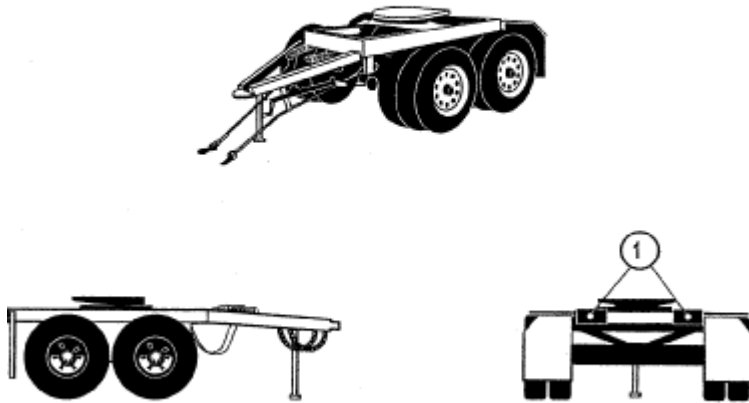
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**Figure 12 - Pole Trailer Illustration for § 393.11  
- All Vehicle Widths**



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Figure 13 - Converter Dolly Illustration for § 393.11



Side View of Dolly

Rear

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Figure 14 - Semi-Trailer Illustration for § 393.11

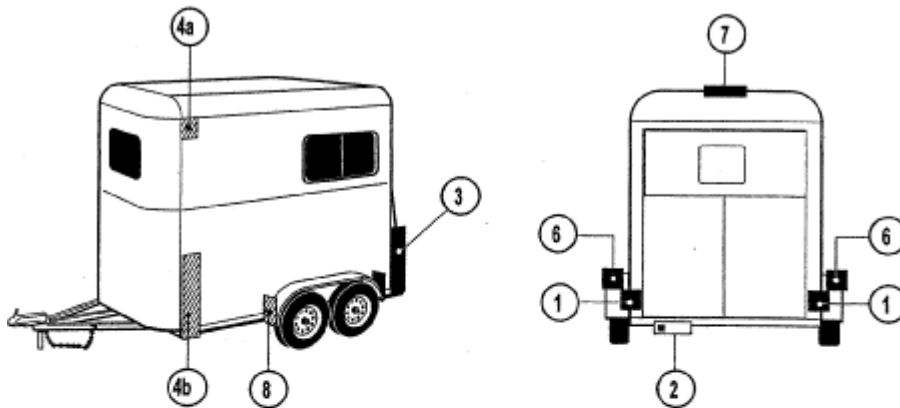
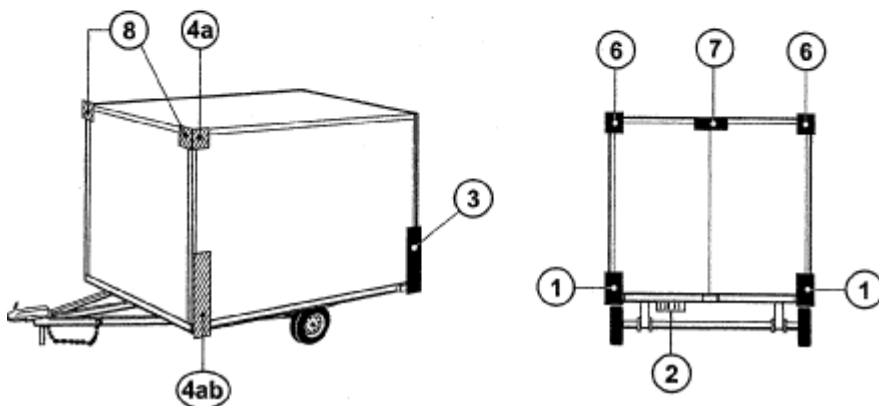
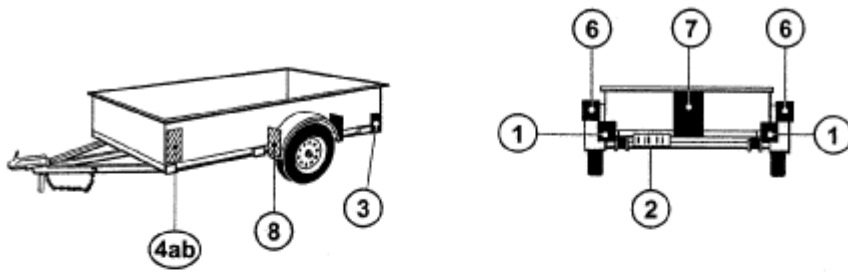


Figure 15 - Semi-Trailer Illustration for § 393.11

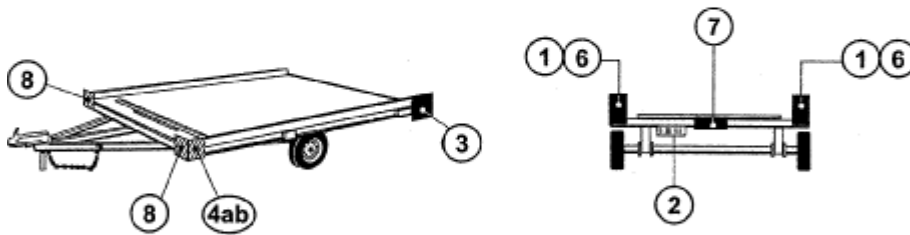


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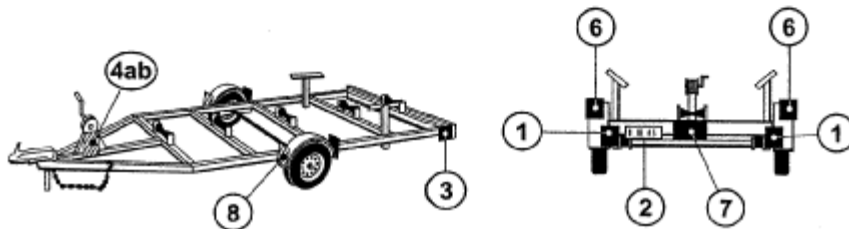
**Figure 16 - Semi-Trailer Illustration for § 393.11**



**Figure 17 - Semi-Trailer Illustration for § 393.11**



**Figure 18 - Semi-Trailer Illustration for § 393.11**



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**LEGEND FOR FIGURES 8 THROUGH 18 - 49 CFR 393.11  
TRAILER ILLUSTRATIONS**

(DOES NOT APPLY TO FIGURES 1 THROUGH 7 FOR TRUCKS & BUSES)

Area	Equipment
<b>1</b>	Tail Lamps
	Stop Lamps
	Rear Turn Signal Lamps
	Rear Reflex Reflectors
<b>2</b>	License Plate Lamp (s)
<b>3</b>	Rear Side Marker Lamps
	Rear Side Reflex Reflectors
<b>4a</b>	Front Side Marker Lamps
<b>4b</b>	Front Side Reflex Reflectors

**ADDITIONAL EQUIPMENT FOR TRAILERS EXCEEDING THE  
FOLLOWING PARAMETERS**

**LENGTH 9.1 m (30 ft.) OR LONGER**

Area	Equipment
<b>5a</b>	Intermediate Side Marker Lamps
<b>5b</b>	Intermediate Side Reflex Reflectors

**WIDTH 2.032 m (80 in.) OR WIDER**

Area	Equipment
<b>6</b>	Rear Clearance Lamps
<b>7</b>	Rear Identification Lamps
<b>8</b>	Front Clearance Lamps

**WIDTH 2.032 m (80 in.) OR WIDER AND GVWR 4,536 kg (10,000 lb.)  
OR MORE**

Area	DESCRIPTION
	Conspicuity Treatment
<b>9</b>	Rear Upper Body Marking
<b>10</b>	Bumper Bar Marking
<b>11</b>	Rear Lower Body Marking
<b>12</b>	Side Marking

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[70 FR 48027, Aug. 15, 2005]

§ 393.13 Retroreflective sheeting and reflex reflectors, requirements for semitrailers and trailers manufactured before December 1, 1993.

[↑ top](#)

(a) *Applicability.* All trailers and semitrailers manufactured prior to December 1, 1993, which have an overall width of 2,032 mm (80 inches) or more and a gross vehicle weight rating of 4,536 kg (10,001 pounds) or more, except trailers that are manufactured exclusively for use as offices or dwellings, pole trailers (as defined in §390.5 of this subchapter), and trailers transported in a driveaway-towaway operation, must be equipped with retroreflective sheeting or an array of reflex reflectors that meet the requirements of this section. Motor carriers operating trailers, other than container chassis (as defined in §393.5), have until June 1, 2001, to comply with the requirements of this section. Motor carriers operating container chassis have until December 1, 2001, to comply with the requirements of this section.

(b) *Retroreflective sheeting and reflex reflectors.* Motor carriers are encouraged to retrofit their trailers with a conspicuity system that meets all of the requirements applicable to trailers manufactured on or after December 1, 1993, including the use of retroreflective sheeting or reflex reflectors in a red and white pattern (see Federal Motor Vehicle Safety Standard No. 108 (49 CFR 571.108), S5.7, *Conspicuity systems*). Motor carriers which do not retrofit their trailers to meet the requirements of FMVSS No. 108, for example by using an alternative color pattern, must comply with the remainder of this paragraph and with paragraph (c) or (d) of this section. Retroreflective sheeting or reflex reflectors in colors or color combinations other than red and white may be used on the sides or lower rear area of the semitrailer or trailer until June 1, 2009. The alternate color or color combination must be uniform along the sides and lower rear area of the trailer. The retroreflective sheeting or reflex reflectors on the upper rear area of the trailer must be white and conform to the requirements of FMVSS No. 108 (S5.7). Red retroreflective sheeting or reflex reflectors shall not be used along the sides of the trailer unless it is used as part of a red and white pattern. Retroreflective sheeting shall have a width of at least 50 mm (2 inches).

(c) *Locations for retroreflective sheeting—*(1) *Sides.* Retroreflective sheeting shall be applied to each side of the trailer or semitrailer. Each strip of retroreflective sheeting shall be positioned as horizontally as practicable, beginning and ending as close to the front and rear as practicable. The strip need not be continuous but the sum of the length of all of the segments shall be at least half of the length of the trailer and the spaces between the segments of the strip shall be distributed as evenly as practicable. The centerline for each strip of retroreflective sheeting shall be between 375 mm (15 inches) and 1,525 mm (60 inches) above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area. If necessary to clear rivet heads or other similar obstructions, 50 mm (2 inches) wide retroreflective sheeting may be separated into two 25 mm (1 inch) wide strips of the same length and color, separated by a space of not more than 25 mm (1 inch).

(2) *Lower rear area.* The rear of each trailer and semitrailer must be equipped with retroreflective sheeting. Each strip of retroreflective sheeting shall be positioned as horizontally as practicable, extending across the full width of the trailer, beginning and ending as close to the extreme edges as practicable. The centerline for each of the strips of retroreflective sheeting shall be between 375 mm (15 inches) and 1,525 mm (60 inches)

above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area.

(3) *Upper rear area.* Two pairs of white strips of retroreflective sheeting, each pair consisting of strips 300 mm (12 inches) long, must be positioned horizontally and vertically on the right and left upper corners of the rear of the body of each trailer and semitrailer, as close as practicable to the top of the trailer and as far apart as practicable. If the perimeter of the body, as viewed from the rear, is not square or rectangular, the strips may be applied along the perimeter, as close as practicable to the uppermost and outermost areas of the rear of the body on the left and right sides.

(d) *Locations for reflex reflectors.*—(1) *Sides.* Reflex reflectors shall be applied to each side of the trailer or semitrailer. Each array of reflex reflectors shall be positioned as horizontally as practicable, beginning and ending as close to the front and rear as practicable. The array need not be continuous but the sum of the length of all of the array segments shall be at least half of the length of the trailer and the spaces between the segments of the strip shall be distributed as evenly as practicable. The centerline for each array of reflex reflectors shall be between 375 mm (15 inches) and 1,525 mm (60 inches) above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array. If reflex reflectors are arranged in an alternating color pattern, the length of reflectors of the first color shall be as close as practicable to the length of the reflectors of the second color.

(2) *Lower rear area.* The rear of each trailer and semitrailer must be equipped with reflex reflectors. Each array of reflex reflectors shall be positioned as horizontally as practicable, extending across the full width of the trailer, beginning and ending as close to the extreme edges as practicable. The centerline for each array of reflex reflectors shall be between 375 mm (15 inches) and 1,525 mm (60 inches) above the road surface when measured with the trailer empty or unladen, or as close as practicable to this area. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array.

(3) *Upper rear area.* Two pairs of white reflex reflector arrays, each pair at least 300 mm (12 inches) long, must be positioned horizontally and vertically on the right and left upper corners of the rear of the body of each trailer and semitrailer, as close as practicable to the top of the trailer and as far apart as practicable. If the perimeter of the body, as viewed from the rear, is not square or rectangular, the arrays may be applied along the perimeter, as close as practicable to the uppermost and outermost areas of the rear of the body on the left and right sides. The center of each reflector shall not be more than 100 mm (4 inches) from the center of each adjacent reflector in the segment of the array.

[64 FR 15605, Mar. 31, 1999, as amended at 66 FR 30339, June 6, 2001]



§ 393.17 Lamps and reflectors—combinations in driveaway-towaway operation.

[↑ top](#)

A combination of motor vehicles engaged in driveaway-towaway operation must be equipped with operative lamps and reflectors conforming to the rules in this section.

(a) The towing vehicle must be equipped as follows:

(1) On the front, there must be at least two headlamps, an equal number at each side, two turn signals, one at each side, and two clearance lamps, one at each side.

(2) On each side, there must be at least one side-marker lamp, located near the front of the vehicle.

(3) On the rear, there must be at least two tail lamps, one at each side, and two stop lamps, one at each side.

(b) Except as provided in paragraph (c) of this section, the rearmost towed vehicle of the combination (including the towed vehicle or a tow-bar combination, the towed vehicle of a single saddle-mount combination, and the rearmost towed vehicle of a double or triple saddle-mount combination) or, in the case of a vehicle full-mounted on a saddle-mount vehicle, either the full-mounted vehicle or the rearmost saddle-mounted vehicle must be equipped as follows:

(1) On each side, there must be at least one side-marker lamp, located near the rear of the vehicle.

(2) On the rear, there must be at least two tail lamps, two stop lamps, two turn signals, two clearance lamps, and two reflectors, one of each type at each side. In addition, if any vehicle in the combination is 80 inches or more in overall width, there must be three identification lamps on the rear.

(c) If the towed vehicle in a combination is a mobile structure trailer, it must be equipped in accordance with the following lighting devices. For the purposes of this part, *mobile structure trailer* means a trailer that has a roof and walls, is at least 10 feet wide, and can be used off road for dwelling or commercial purposes.

(1) When the vehicle is operated in accordance with the terms of a special permit prohibiting operation during the times when lighted lamps are required under §392.30, it must have on the rear—

(i) Two stop lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable;

(ii) Two tail lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable;

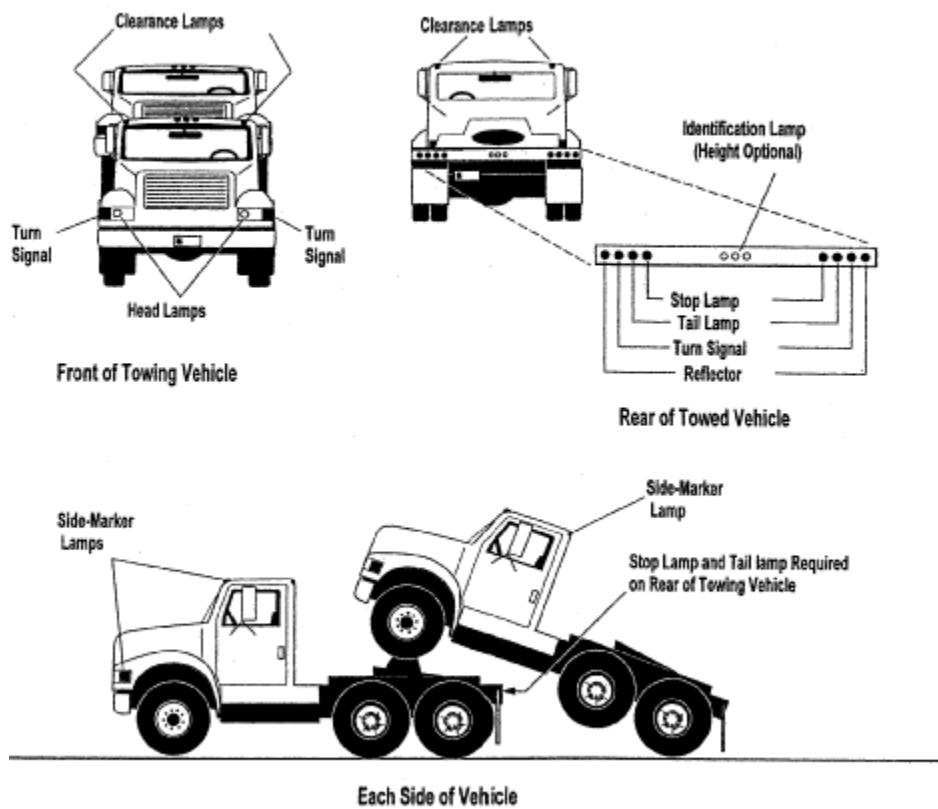
(iii) Two red reflex reflectors, one on each side of the vertical centerline, at the same height, and as far apart as practicable; and

(iv) Two turn signal lamps, one on each side of the vertical centerline, at the same height, and as far apart as practicable.

(2) At all other times, the vehicle must be equipped as specified in paragraph (b) of this section.

(d) An intermediate towed vehicle in a combination consisting of more than two vehicles (including the first saddle-mounted vehicle of a double saddle-mount combination and the first and second saddle-mount vehicles of a triple saddle-mount combination) must have one side-marker lamp on each side, located near the rear of the vehicle.

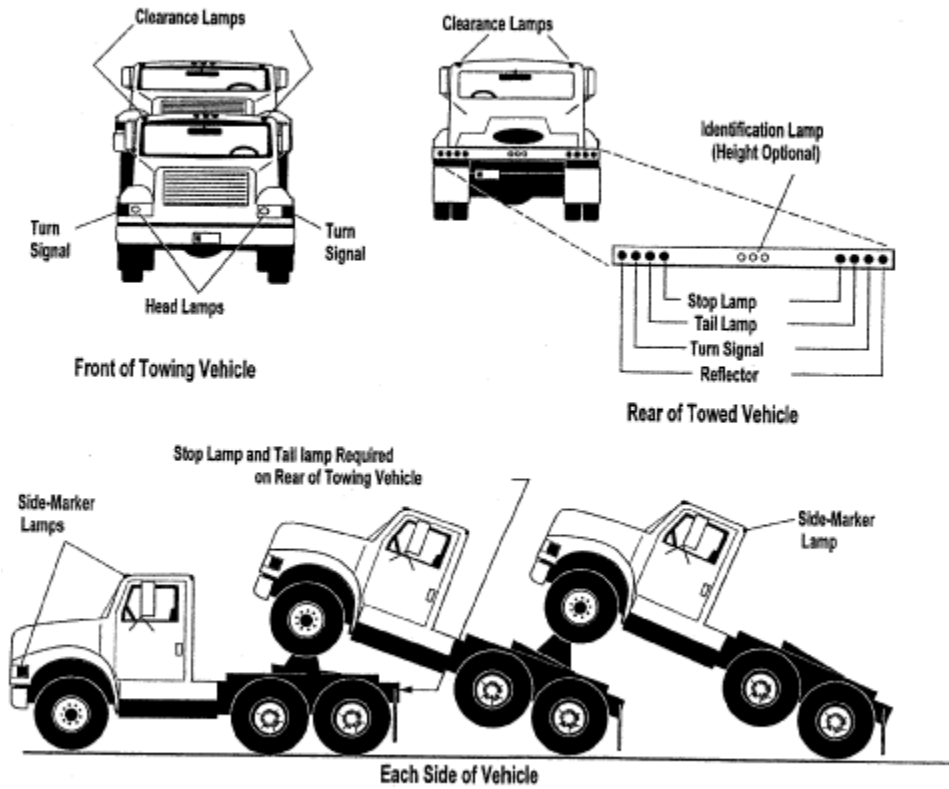
**Figure 19 - Single-Saddle-Mount Diagram to Illustrate § 393.17**



Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

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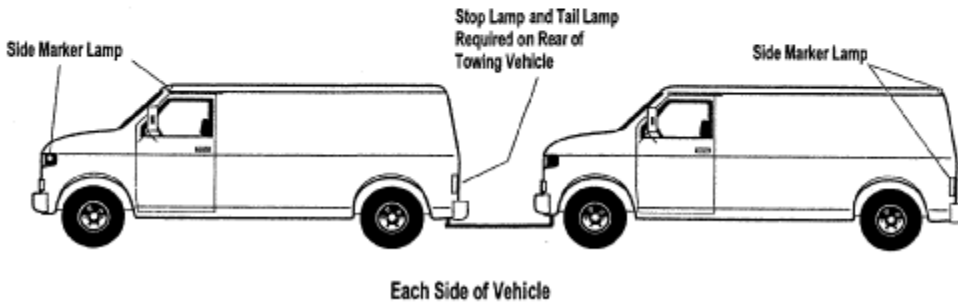
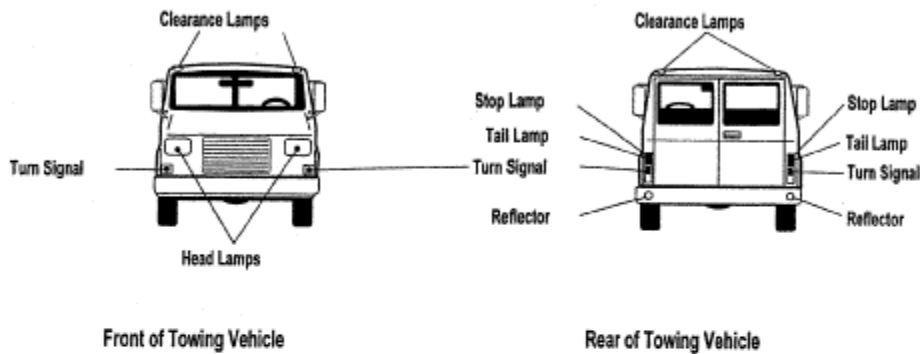
**Figure 20 - Double-Saddle-Mount Diagram to Illustrate § 393.17**



Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

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Figure 21 - Tow-bar Diagram to Illustrate § 393.17



Lamps may be combined as permitted by § 393.22. The color of exterior lighting devices and reflectors shall conform to requirements of § 393.11

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(49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

[40 FR 36126, Aug. 19, 1975, as amended at 47 FR 47837, Oct. 28, 1982; 70 FR 48044, Aug. 15, 2005]

§ 393.19 Hazard warning signals.

[↑ top](#)

The hazard warning signal operating unit on each commercial motor vehicle shall operate independently of the ignition or equivalent switch, and when activated, cause all turn signals required by §393.11 to flash simultaneously.

[70 FR 48046, Aug. 15, 2005]

§ 393.20 [Reserved]

[↑ top](#)

**§ 393.22 Combination of lighting devices and reflectors.**

[↑ top](#)

(a) *Permitted combinations.* Except as provided in paragraph (b) of this section, two or more lighting devices and reflectors (whether or not required by the rules in this part) may be combined optically if—

(1) Each required lighting device and reflector conforms to the applicable rules in this part; and

(2) Neither the mounting nor the use of a nonrequired lighting device or reflector impairs the effectiveness of a required lighting device or reflector or causes that device or reflector to be inconsistent with the applicable rules in this part.

(b) *Prohibited combinations.* (1) A turn signal lamp must not be combined optically with either a head lamp or other lighting device or combination of lighting devices that produces a greater intensity of light than the turn signal lamp.

(2) A turn signal lamp must not be combined optically with a stop lamp unless the stop lamp function is always deactivated when the turn signal function is activated.

(3) A clearance lamp must not be combined optically with a tail lamp or identification lamp.

[39 FR 26908, July 24, 1974]

**§ 393.23 Power supply for lamps.**

[↑ top](#)

All required lamps must be powered by the electrical system of the motor vehicle with the exception of battery powered lamps used on projecting loads.

[70 FR 48046, Aug. 15, 2005]

**§ 393.24 Requirements for head lamps, auxiliary driving lamps and front fog lamps.**

[↑ top](#)

(a) *Headlamps.* Every bus, truck and truck tractor shall be equipped with headlamps as required by §393.11(a). The headlamps shall provide an upper and lower beam distribution of light, selectable at the driver's will and be steady-burning. The headlamps shall be marked in accordance with FMVSS No. 108. Auxiliary driving lamps and/or front fog lamps may not be used to satisfy the requirements of this paragraph.

(b) *Auxiliary driving lamps and front fog lamps.* Commercial motor vehicles may be equipped with auxiliary driving lamps and/or front fog lamps for use in conjunction with, but not in lieu of the required headlamps. Auxiliary driving lamps shall meet SAE Standard J581 Auxiliary Upper Beam Lamps, July 2004, and front fog lamps shall meet SAE Standard J583 Front Fog Lamp, August 2004. (See §393.7 for information on the incorporation by reference and availability of these documents.)

(c) *Mounting.* Headlamps shall be mounted and aimable in accordance with FMVSS No. 108. Auxiliary driving lamps and front fog lamps shall be mounted so that the beams are aimable and the mounting shall prevent the aim of the lighting device from being disturbed while the vehicle is operating on public roads.

(d) *Aiming.* Headlamps, auxiliary driving lamps and front fog lamps shall be aimed to meet the aiming specifications in FMVSS No. 108 (49 CFR 571.108), SAE J581, and SAE J583, respectively.

[70 FR 48046, Aug. 15, 2005]

**§ 393.25 Requirements for lamps other than head lamps.**

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(a) *Mounting.* All lamps shall be securely mounted on a rigid part of the vehicle. Temporary lamps must be securely mounted to the load and are not required to be mounted to a permanent part of the vehicle.

(b) *Visibility.* Each lamp shall be located so that it meets the visibility requirements specified by FMVSS No. 108 in effect at the time of manufacture of the vehicle. Vehicles which were not subject to FMVSS No. 108 at the time of manufacture shall have each lamp located so that it meets the visibility requirements specified in the SAE standards listed in paragraph (c) of this section. If motor vehicle equipment (*e.g.*, mirrors, snow plows, wrecker booms, backhoes, and winches) prevents compliance with this paragraph by any required lamp, an auxiliary lamp or device meeting the requirements of this paragraph shall be provided. This shall not be construed to apply to lamps on one unit which are obscured by another unit of a combination of vehicles.

(c) *Specifications.* All required lamps (except marker lamps on projecting loads, lamps which are temporarily attached to vehicles transported in driveaway-towaway operations, and lamps on converter dollies and pole trailers) on vehicles manufactured on or after December 25, 1968, shall, at a minimum, meet the applicable requirements of FMVSS No. 108 in effect on the date of manufacture of the vehicle. Marker lamps on projecting loads, all lamps which are temporarily attached to vehicles transported in driveaway-towaway operations, and all lamps on converter dollies and pole trailers must meet the following applicable SAE standards: J586—Stop Lamps for Use on Motor Vehicles Less Than 2032 mm in Overall Width, March 2000; J2261 Stop Lamps and Front- and Rear-Turn Signal

Lamps for Use on Motor Vehicles 2032 mm or More in Overall Width, January 2002; J585—Tail Lamps (Rear Position Lamps) for Use on Motor Vehicles Less Than 2032 mm in Overall Width, March 2000; J588—Turn Signal Lamps for Use on Motor Vehicles Less Than 2032 mm in Overall Width, March 2000; J2040—Tail Lamps (Rear Position Lamps) for Use on Vehicles 2032 mm or More in Overall Width, March 2002; J592—Sidemarker Lamps for Use on Road Vehicles Less Than 2032 mm in Overall Width, August 2000. (See §393.7 for information on the incorporation by reference and availability of these documents.)

(d) (Reserved)

(e) *Lamps to be steady-burning.* All exterior lamps (both required lamps and any additional lamps) shall be steady-burning with the exception of turn signal lamps; hazard warning signal lamps; school bus warning lamps; amber warning lamps or flashing warning lamps on tow trucks and commercial motor vehicles transporting oversized loads; and warning lamps on emergency and service vehicles authorized by State or local authorities. Lamps combined into the same shell or housing with a turn signal are not required to be steady burning while the turn signal is in use. Amber warning lamps must meet SAE J845—Optical Warning Devices for Authorized Emergency, Maintenance and Service Vehicles, May 1997. Amber flashing warning lamps must meet SAE J595—Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance and Service Vehicles, January 2005. Amber gaseous discharge warning lamps must meet SAE J1318 Gaseous Discharge Warning Lamp for Authorized Emergency, Maintenance, and Service Vehicles, May 1998. (See §393.7(b) for information on the incorporation by reference and availability of these documents.)

(f) *Stop lamp operation.* The stop lamps on each vehicle shall be activated upon application of the service brakes. The stop lamps are not required to be activated when the emergency feature of the trailer brakes is used or when the stop lamp is optically combined with the turn signal and the turn signal is in use.

[70 FR 48047, Aug. 15, 2005]

#### § 393.26 Requirements for reflectors.

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(a) *Mounting.* Reflex reflectors shall be mounted at the locations required by §393.11. In the case of motor vehicles so constructed that requirement for a 381 mm (15-inch) minimum height above the road surface is not practical, the reflectors shall be mounted as close as practicable to the required mounting height range. All permanent reflex reflectors shall be securely mounted on a rigid part of the vehicle. Temporary reflectors on projecting loads must be securely mounted to the load and are not required to be permanently mounted to a part of the vehicle. Temporary reflex reflectors on vehicles transported in driveaway-towaway operations must be firmly attached.

(b) *Specifications.* All required reflex reflectors (except reflex reflectors on projecting loads, vehicles transported in a driveway-towaway operation, converter dollies and pole trailers) on vehicles manufactured on or after December 25, 1968, shall meet the applicable requirements of FMVSS No. 108 in effect on the date of manufacture of the vehicle. Reflex reflectors on projecting loads, vehicles transported in a driveway-towaway operation, and all reflex reflectors on converter dollies and pole trailers must conform to SAE J594—Reflex Reflectors, December 2003.

(c) *Substitute material for side reflex reflectors.* Reflective material conforming to ASTM D 4956–04, Standard Specification for Retroreflective Sheeting for Traffic Control, may be used in lieu of reflex reflectors if the material as used on the vehicle, meets the performance standards in either Table I of SAE J594 or Table IA of SAE J594—Reflex Reflectors, December 2003. (See §393.7(b) for information on the incorporation by reference and availability of these documents.)

(d) *Use of additional retroreflective surfaces.* Additional retroreflective surfaces may be used in conjunction with, but not in lieu of the reflex reflectors required in subpart B of part 393, and the substitute material for side reflex reflectors allowed by paragraph (c) of this section, provided:

- (1) Designs do not resemble traffic control signs, lights, or devices, except that straight edge striping resembling a barricade pattern may be used.
- (2) Designs do not tend to distort the length and/or width of the motor vehicle.
- (3) Such surfaces shall be at least 3 inches from any required lamp or reflector unless of the same color as such lamp or reflector.
- (4) No red color shall be used on the front of any motor vehicle, except for display of markings or placards required by §177.823 of this title.
- (5) Retroreflective license plates required by State or local authorities may be used.

[33 FR 19735, Dec. 25, 1968, as amended at 35 FR 3167, Feb. 19, 1970; 53 FR 49397, Dec. 7, 1988; 70 FR 48047, Aug. 15, 2005]

§ 393.27 [Reserved]

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§ 393.28 **Wiring systems.**

[↑ top](#)

Electrical wiring shall be installed and maintained to conform to SAE J1292—Automobile,



Truck, Truck-Tractor, Trailer, and Motor Coach Wiring, October 1981, except the jumper cable plug and receptacle need not conform to SAE J560. The reference to SAE J1292 shall not be construed to require circuit protection on trailers. (See §393.7(b) for information on the incorporation by reference and availability of this document.)

[70 FR 48047, Aug. 15, 2005]

§ 393.29 [Reserved]

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§ 393.30 **Battery installation.**

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Every storage battery on every vehicle, unless located in the engine compartment, shall be covered by a fixed part of the motor vehicle or protected by a removable cover or enclosure. Removable covers or enclosures shall be substantial and shall be securely latched or fastened. The storage battery compartment and adjacent metal parts which might corrode by reason of battery leakage shall be painted or coated with an acid-resisting paint or coating and shall have openings to provide ample battery ventilation and drainage. Wherever the cable to the starting motor passes through a metal compartment, the cable shall be protected against grounding by an acid and waterproof insulating bushing. Wherever a battery and a fuel tank are both placed under the driver's seat, they shall be partitioned from each other, and each compartment shall be provided with an independent cover, ventilation, and drainage.

§ 393.31-393.33 [Reserved]

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**Subpart C—Brakes**

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§ 393.40 **Required brake systems.**

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(a) Each commercial motor vehicle must have brakes adequate to stop and hold the vehicle or combination of motor vehicles. Each commercial motor vehicle must meet the applicable service, parking, and emergency brake system requirements provided in this section.

(b) Service brakes. (1) *Hydraulic brake systems.* Motor vehicles equipped with hydraulic brake systems and manufactured on or after September 2, 1983, must, at a minimum, have a

service brake system that meets the requirements of FMVSS No. 105 in effect on the date of manufacture. Motor vehicles which were not subject to FMVSS No. 105 on the date of manufacture must have a service brake system that meets the applicable requirements of §§393.42, 393.48, 393.49, 393.51, and 393.52 of this subpart.

(2) *Air brake systems.* Buses, trucks and truck-tractors equipped with air brake systems and manufactured on or after March 1, 1975, and trailers manufactured on or after January 1, 1975, must, at a minimum, have a service brake system that meets the requirements of FMVSS No. 121 in effect on the date of manufacture. Motor vehicles which were not subject to FMVSS No. 121 on the date of manufacture must have a service brake system that meets the applicable requirements of §§393.42, 393.48, 393.49, 393.51, and 393.52 of this subpart.

(3) *Vacuum brake systems.* Motor vehicles equipped with vacuum brake systems must have a service brake system that meets the applicable requirements of §§393.42, 393.48, 393.49, 393.51, and 393.52 of this subpart.

(4) *Electric brake systems.* Motor vehicles equipped with electric brake systems must have a service brake system that meets the applicable requirements of §§393.42, 393.48, 393.49 and 393.52 of this subpart.

(c) *Parking brakes.* Each commercial motor vehicle must be equipped with a parking brake system that meets the applicable requirements of §393.41.

(d) Emergency brakes—partial failure of service brakes.

(1) *Hydraulic brake systems.* Motor vehicles manufactured on or after September 2, 1983, and equipped with a split service brake system must, at a minimum, meet the partial failure requirements of FMVSS No. 105 in effect on the date of manufacture.

(2) *Air brake systems.* Buses, trucks and truck tractors manufactured on or after March 1, 1975, and trailers manufactured on or after January 1, 1975, must be equipped with an emergency brake system which, at a minimum, meets the requirements of FMVSS No. 121 in effect on the date of manufacture.

(3) *Vehicles not subject to FMVSS Nos. 105 and 121 on the date of manufacture.* Buses, trucks and truck tractors not subject to FMVSS Nos. 105 or 121 on the date of manufacture must meet the requirements of §393.40(e). Trailers not subject to FMVSS No. 121 at the time of manufacture must meet the requirements of §393.43.

(e) Emergency brakes, vehicles manufactured on or after July 1, 1973. (1) A bus, truck, truck tractor, or a combination of motor vehicles manufactured on or after July 1, 1973, and not covered under paragraphs (d)(1) or (d)(2) of this section, must have an emergency brake system which consists of emergency features of the service brake system or an emergency system separate from the service brake system. The emergency brake system must meet the

applicable requirements of §§393.43 and 393.52.

(2) A control by which the driver applies the emergency brake system must be located so that the driver can operate it from the normal seating position while restrained by any seat belts with which the vehicle is equipped. The emergency brake control may be combined with either the service brake control or the parking brake control. However, all three controls may not be combined.

(f) *Interconnected systems.* (1) If the brake systems required by §393.40(a) are interconnected in any way, they must be designed, constructed, and maintained so that in the event of a failure of any part of the operating mechanism of one or more of the systems (except the service brake actuation pedal or valve), the motor vehicle will have operative brakes and, for vehicles manufactured on or after July 1, 1973, be capable of meeting the requirements of §393.52(b).

(2) A motor vehicle to which the requirements of FMVSS No. 105 (S5.1.2), dealing with partial failure of the service brake, applied at the time of manufacture meets the requirements of §393.40(f)(1) if the motor vehicle is maintained in conformity with FMVSS No. 105 and the motor vehicle is capable of meeting the requirements of §393.52(b), except in the case of a structural failure of the brake master cylinder body.

(3) A bus is considered to meet the requirements of §393.40(f)(1) if it meets the requirements of §393.44 and §393.52(b).

[70 FR 48048, Aug. 15, 2005]

#### § 393.41 Parking brake system.

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(a) *Hydraulic-braked vehicles manufactured on or after September 2, 1983.* Each truck and bus (other than a school bus) with a GVWR of 4,536 kg (10,000 pounds) or less which is subject to this part and school buses with a GVWR greater than 4,536 kg (10,000 pounds) shall be equipped with a parking brake system as required by FMVSS No. 571.105 (S5.2) in effect at the time of manufacture. The parking brake shall be capable of holding the vehicle or combination of vehicles stationary under any condition of loading in which it is found on a public road (free of ice and snow). Hydraulic-braked vehicles which were not subject to the parking brake requirements of FMVSS No. 571.105 (S5.2) must be equipped with a parking brake system that meets the requirements of paragraph (c) of this section.

(b) *Air-braked power units manufactured on or after March 1, 1975, and air-braked trailers manufactured on or after January 1, 1975.* Each air-braked bus, truck and truck tractor manufactured on and after March 1, 1975, and each air-braked trailer except an agricultural commodity trailer, converter dolly, heavy hauler trailer or pulpwood trailer, shall be equipped with a parking brake system as required by FMVSS No. 121 (S5.6) in

effect at the time of manufacture. The parking brake shall be capable of holding the vehicle or combination of vehicles stationary under any condition of loading in which it is found on a public road (free of ice and snow). An agricultural commodity trailer, heavy hauler or pulpwood trailer shall carry sufficient chocking blocks to prevent movement when parked.

(c) *Vehicles not subject to FMVSS Nos. 105 and 121 on the date of manufacture.* (1) Each singly driven motor vehicle not subject to parking brake requirements of FMVSS Nos. 105 or 121 at the time of manufacturer, and every combination of motor vehicles must be equipped with a parking brake system adequate to hold the vehicle or combination on any grade on which it is operated, under any condition of loading in which it is found on a public road (free of ice and snow).

(2) The parking brake system shall, at all times, be capable of being applied by either the driver's muscular effort or by spring action. If other energy is used to apply the parking brake, there must be an accumulation of that energy isolated from any common source and used exclusively for the operation of the parking brake.

*Exception:* This paragraph shall not be applicable to air-applied, mechanically-held parking brake systems which meet the parking brake requirements of FMVSS No. 121 (S5.6).

(3) The parking brake system shall be held in the applied position by energy other than fluid pressure, air pressure, or electric energy. The parking brake system shall not be capable of being released unless adequate energy is available to immediately reapply the parking brake with the required effectiveness.

[70 FR 48048, Aug. 15, 2005]

**§ 393.42 Brakes required on all wheels.**

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(a) Every commercial motor vehicle shall be equipped with brakes acting on all wheels.

(b) *Exception.* (1) Trucks or truck tractors having three or more axles and manufactured before July 25, 1980, are not required to have brakes on the front wheels. However, these vehicles must meet the requirements of §393.52.

(2) Motor vehicles being towed in a driveaway-towaway operation are not required to have operative brakes provided the combination of vehicles meets the requirements of §393.52. This exception is not applicable to:

(i) Any motor vehicle towed by means of a tow-bar when another motor vehicle is full-mounted on the towed vehicle; and

(ii) Any combination of motor vehicles utilizing three or more saddle-mounts.

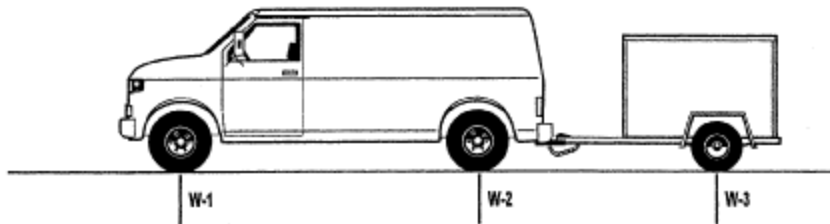
(3) Any semitrailer or pole trailer (laden or unladen) with a gross weight of 1,361 kg (3,000 pounds) or less which is subject to this part is not required to be equipped with brakes if the axle weight of the towed vehicle does not exceed 40 percent of the sum of the axle weights of the towing vehicle.

(4) Any full trailer or four-wheel pole trailer (laden or unladen) with a gross weight of 1,361 kg (3,000 pounds) or less which is subject to this part is not required to be equipped with brakes if the sum of the axle weights of the towed vehicle does not exceed 40 percent of the sum of the axle weights of the towing vehicle.

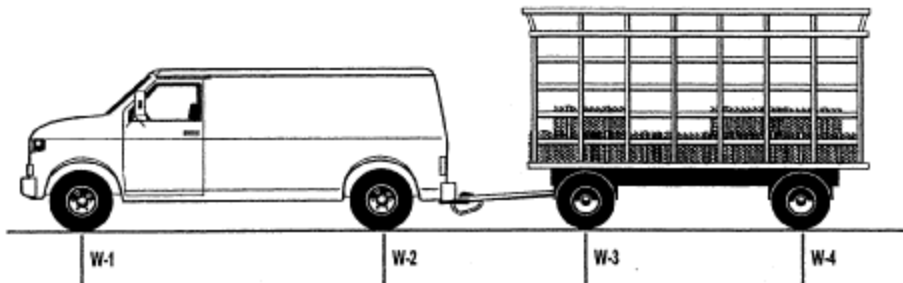
(5) Brakes are not required on the steering axle of a three-axle dolly which is steered by a co-driver.

(6) Loaded housemoving dollies, specialized trailers and dollies used to transport industrial furnaces, reactors, and similar motor vehicles are not required to be equipped with brakes, provided the speed at which the combination of vehicles will be operated does not exceed 32 km/hour (20 mph) and brakes on the combination of vehicles are capable of stopping the combination within 12.2 meters (40 feet) from the speed at which the vehicle is being operated or 32 km/hour (20 mph), whichever is less.

**Figure 22 - Illustrations of Brake Requirements for Light-Duty Trailers in § 393.42**



(Semitrailer or 2-wheel pole trailer of 1,360 kilograms (3,000 pounds) gross weight or less must be equipped with brakes if W-3 is greater than 40 percent of the sum of W-1 and W-2.)



(Full trailer or 4-wheel pole trailer of 1,360 kilograms (3,000 pounds) gross weight or less must be equipped with brakes if the sum of W-3 and W-4 is greater than 40 percent of the sum of W-1 and W-2.)

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[52 FR 2803, Jan. 27, 1987, as amended at 53 FR 49398, Dec. 7, 1988; 54 FR 48617, Nov. 24, 1989; 59 FR 25574, May 17, 1994; 61 FR 1843, Jan. 24, 1996; 70 FR 48049, Aug. 15, 2005]

**§ 393.43 Breakaway and emergency braking.**

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(a) *Towing vehicle protection system.* Every motor vehicle, if used to tow a trailer equipped with brakes, shall be equipped with a means for providing that in the case of a breakaway of the trailer, the service brakes on the towing vehicle will be capable of stopping the towing vehicle. For air braked towing units, the tractor protection valve or similar device shall operate automatically when the air pressure on the towing vehicle is between 138 kPa and 310 kPa (20 psi and 45 psi).

(b) *Emergency brake requirements, air brakes.* Every truck or truck tractor equipped with air brakes, when used for towing other vehicles equipped with air brakes, shall be equipped with two means of activating the emergency features of the trailer brakes. One of these means shall operate automatically in the event of reduction of the towing vehicle air supply

to a fixed pressure which shall not be lower than 20 pounds per square inch nor higher than 45 pounds per square inch. The other means shall be a manually controlled device readily operable by a person seated in the driving seat. Its emergency position or method of operation shall be clearly indicated. In no instance may the manual means be so arranged as to permit its use to prevent operation of the automatic means. The automatic and manual means required by this section may be, but are not required to be, separate.

(c) *Emergency brake requirements, vacuum brakes.* Every truck tractor and truck when used for towing other vehicles equipped with vacuum brakes, shall have, in addition to the single control required by §393.49 to operate all brakes of the combination, a second manual control device which can be used to operate the brakes on the towed vehicles in emergencies. Such second control shall be independent of brake air, hydraulic, and other pressure, and independent of other controls, unless the braking system be so arranged that failure of the pressure on which the second control depends will cause the towed vehicle brakes to be applied automatically. The second control is not required by this rule to provide modulated or graduated braking.

(d) *Breakaway braking requirements for trailers.* Every trailer required to be equipped with brakes shall have brakes which apply automatically and immediately upon breakaway from the towing vehicle. With the exception of trailers having three or more axles, all brakes with which the trailer is required to be equipped must be applied upon breakaway from the towing vehicle. The brakes must remain in the applied position for at least 15 minutes.

(e) *Emergency valves.* Air brake systems installed on towed vehicles shall be so designed, by the use of “no-bleed-back” relay emergency valves or equivalent devices, that the supply reservoir used to provide air for brakes shall be safeguarded against backflow of air to the towing vehicle upon reduction of the towing vehicle air pressure.

(f) *Exception.* The requirements of paragraphs (b), (c) and (d) of this section shall not be applicable to commercial motor vehicles being transported in driveaway-towaway operations.

[53 FR 49384, Dec. 7, 1988, as amended at 70 FR 48050, Aug. 15, 2005]

**§ 393.44 Front brake lines, protection.**

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On every bus, if equipped with air brakes, the braking system shall be so constructed that in the event any brake line to any of the front wheels is broken, the driver can apply the brakes on the rear wheels despite such breakage. The means used to apply the brakes may be located forward of the driver's seat as long as it can be operated manually by the driver when the driver is properly restrained by any seat belt assembly provided for use. Every bus shall meet this requirement or comply with the regulations in effect at the time of its

manufacture.

[53 FR 49400, Dec. 7, 1988]

**§ 393.45 Brake tubing and hoses; hose assemblies and end fittings.**

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(a) *General construction requirements for tubing and hoses, assemblies, and end fittings.* All brake tubing and hoses, brake hose assemblies, and brake hose end fittings must meet the applicable requirements of FMVSS No. 106 (49 CFR 571.106).

(b) *Brake tubing and hose installation.* Brake tubing and hose must—

(1) Be long and flexible enough to accommodate without damage all normal motions of the parts to which it is attached;

(2) Be secured against chaffing, kinking, or other mechanical damage; and

(3) Be installed in a manner that prevents it from contacting the vehicle's exhaust system or any other source of high temperatures.

(c) *Nonmetallic brake tubing.* Coiled nonmetallic brake tubing may be used for connections between towed and towing motor vehicles or between the frame of a towed vehicle and the unsprung subframe of an adjustable axle of the motor vehicle if—

(1) The coiled tubing has a straight segment (pigtail) at each end that is at least 51 mm (2 inches) in length and is encased in a spring guard or similar device which prevents the tubing from kinking at the fitting at which it is attached to the vehicle; and

(2) The spring guard or similar device has at least 51 mm (2 inches) of closed coils or similar surface at its interface with the fitting and extends at least 38 mm (1 1/2 inches) into the coiled segment of the tubing from its straight segment.

(d) *Brake tubing and hose connections.* All connections for air, vacuum, or hydraulic braking systems shall be installed so as to ensure an attachment free of leaks, constrictions or other conditions which would adversely affect the performance of the brake system.

[70 FR 48050, Aug. 15, 2005]

**§ 393.46 [Reserved]**

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§ 393.47 Brake actuators, slack adjusters, linings/pads and drums/rotors.

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(a) *General requirements.* Brake components must be constructed, installed and maintained to prevent excessive fading and grabbing. The means of attachment and physical characteristics must provide for safe and reliable stopping of the commercial motor vehicle.

(b) *Brake chambers.* The service brake chambers and spring brake chambers on each end of an axle must be the same size.

(c) *Slack adjusters.* The effective length of the slack adjuster on each end of an axle must be the same.

(d) *Linings and pads.* The thickness of the brake linings or pads shall meet the applicable requirements of this paragraph—

(1) *Steering axle brakes.* The brake lining/pad thickness on the steering axle of a truck, truck-tractor or bus shall not be less than 4.8 mm ( 3/16inch) at the shoe center for a shoe with a continuous strip of lining; less than 6.4 mm ( 1/4inch) at the shoe center for a shoe with two pads; or worn to the wear indicator if the lining is so marked, for air drum brakes. The steering axle brake lining/pad thickness shall not be less than 3.2 mm ( 1/8inch) for air disc brakes, or 1.6 mm ( 1/16inch) or less for hydraulic disc, drum and electric brakes.

(2) *Non-steering axle brakes.* An air braked commercial motor vehicle shall not be operated with brake lining/pad thickness less than 6.4 mm ( 1/4inch) or to the wear indicator if the lining is so marked (measured at the shoe center for drum brakes); or less than 3.2 mm ( 1/8inch) for disc brakes. Hydraulic or electric braked commercial motor vehicles shall not be operated with a lining/pad thickness less than 1.6 mm ( 1/16inch) (measured at the shoe center) for disc or drum brakes.

(e) *Clamp and Roto-Chamber Brake Actuator Readjustment limits.* The pushrod travel for clamp and roto-chamber type actuators must be less than 80 percent of the rated strokes listed in SAE J1817—Long Stroke Air Brake Actuator Marking, July 2001 (See §393.7 (b) for information on incorporation by reference and availability of this document), or 80 percent of the rated stroke marked on the brake chamber by the chamber manufacturer, or the readjustment limit marked on the brake chamber by the chamber manufacturer. The pushrod travel for Type 16 and 20 long stroke clamp type brake actuators must be less than 51 mm (2 inches) or 80 percent of the rated stroke marked on the brake chamber by the chamber manufacturer, or the readjustment limit marked on the brake chamber by the chamber manufacturer.

(f) *Wedge Brake Adjustment.* The movement of the scribe mark on the lining shall not exceed 1.6 mm ( 1/16 inch).

(g) *Drums and rotors.* The thickness of the drums or rotors shall not be less than the limits established by the brake drum or rotor manufacturer.

[70 FR 48051, Aug. 15, 2005]

**§ 393.48 Brakes to be operative.**

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(a) *General rule.* Except as provided in paragraphs (b) and (c) of this section, all brakes with which a commercial motor vehicle is equipped must be operable at all times.

(b) *Devices to reduce or remove front-wheel braking effort.* A commercial motor vehicle may be equipped with a device to reduce the front wheel braking effort (or in the case of a three-axle truck or truck tractor manufactured before March 1, 1975, a device to remove the front-wheel braking effort) if that device meets the applicable requirements of paragraphs (b)(1) and (2) of this section.

(1) *Manually operated devices.* Manually operated devices to reduce or remove front-wheel braking effort may only be used on buses, trucks, and truck tractors manufactured before March 1, 1975. Such devices must not be used unless the vehicle is being operated under adverse conditions such as wet, snowy, or icy roads.

(2) *Automatic devices.* Automatic devices must not reduce the front-wheel braking force by more than 50 percent of the braking force available when the automatic device is disconnected (regardless of whether or not an antilock system failure has occurred on any axle). The device must not be operable by the driver except upon application of the control that activates the braking system. The device must not be operable when the brake control application pressure exceeds 85 psig (for vehicles equipped with air brakes) or 85 percent of the maximum system pressure (for vehicles which are not equipped with air brakes).

(c) *Exception.* Paragraph (a) of this section does not apply to—

(1) A towed vehicle with disabling damage as defined in §390.5;

(2) A vehicle which is towed in a driveaway-towaway operation and is included in the exemption to the requirement for brakes on all wheels, §393.42(b);

(3) Unladen converter dollies with a gross weight of 1,361 kg (3,000 lbs) or less, and manufactured prior to March 1, 1998;

(4) The steering axle of a three-axle dolly which is steered by a co-driver;

(5) Loaded house moving dollies, specialized trailers and dollies used to transport industrial furnaces, reactors, and similar motor vehicles provided the speed at which the combination

of vehicles will be operated does not exceed 32 km/hour (20 mph) and brakes on the combination of vehicles are capable of stopping the combination within 12.2 meters (40 feet) from the speed at which the vehicle is being operated or 32 km/hour (20 mph), whichever is less.

(6) Raised lift axles. Brakes on lift axles need not be capable of being operated while the lift axle is raised. However, brakes on lift axles must be capable of being applied whenever the lift axle is lowered and the tires contact the roadway.

[70 FR 48051, Aug. 15, 2005]

**§ 393.49 Single valve to operate all brakes.**

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Every motor vehicle, the date of manufacture of which is subsequent to June 30, 1953, which is equipped with power brakes, shall have the braking system so arranged that one application valve shall when applied operate all the service brakes on the motor vehicle or combination of motor vehicles. This requirement shall not be construed to prohibit motor vehicles from being equipped with an additional valve to be used to operate the brakes on a trailer or trailers or as provided in §393.44. This section shall not be applicable to driveaway-towaway operations unless the brakes on such operations are designed to be operated by a single valve.

**§ 393.50 Reservoirs required.**

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(a) *Reservoir capacity for air-braked power units manufactured on or after March 1, 1975, and air-braked trailers manufactured on or after January 1, 1975.* Buses, trucks, and trucktractors manufactured on or after March 1, 1975, and air-braked trailers manufactured on or after January 1, 1975, must meet the reservoir requirements of FMVSS No. 121, S5.1.2, in effect on the date of manufacture.

(b) *Reservoir capacity for air-braked vehicles not subject to FMVSS No. 121 on the date of manufacture and all vacuum braked vehicles.* Each motor vehicle using air or vacuum braking must have either reserve capacity, or a reservoir, that would enable the driver to make a full service brake application with the engine stopped without depleting the air pressure or vacuum below 70 percent of that indicated by the air or vacuum gauge immediately before the brake application is made. For the purposes of this paragraph, a full service brake application means depressing the brake pedal or treadle valve to the limit of its travel.

(c) *Safeguarding of air and vacuum.* Each service reservoir system on a motor vehicle shall be protected against a loss of air pressure or vacuum due to a failure or leakage in the

system between the service reservoir and the source of air pressure or vacuum, by check valves or equivalent devices whose proper functioning can be checked without disconnecting any air or vacuum line, or fitting.

(d) *Drain valves for air braked vehicles.* Each reservoir must have a condensate drain valve that can be manually operated. Automatic condensate drain valves may be used provided (1) they may be operated manually, or (2) a manual means of draining the reservoirs is retained.

[70 FR 48052, Aug. 15, 2005]

**§ 393.51 Warning signals, air pressure and vacuum gauges.**

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(a) *General Rule.* Every bus, truck and truck tractor, except as provided in paragraph (f), must be equipped with a signal that provides a warning to the driver when a failure occurs in the vehicle's service brake system. The warning signal must meet the applicable requirements of paragraphs (b), (c), (d) or (e) of this section.

(b) *Hydraulic brakes.* Vehicles manufactured on or after September 1, 1975, must meet the brake system indicator lamp requirements of FMVSS No. 571.105 (S5.3) applicable to the vehicle on the date of manufacture. Vehicles manufactured on or after July 1, 1973 but before September 1, 1975, or to which FMVSS No. 571.105 was not applicable on the date of manufacture, must have a warning signal which operates before or upon application of the brakes in the event of a hydraulic-type complete failure of a partial system. The signal must be either visible within the driver's forward field of view or audible. The signal must be continuous. (NOTE: FMVSS No. 105 was applicable to trucks and buses from September 1, 1975 to October 12, 1976, and from September 1, 1983, to the present. FMVSS No. 105 was not applicable to trucks and buses manufactured between October 12, 1976, and September 1, 1983. Motor carriers have the option of equipping those vehicles to meet either the indicator lamp requirements of FMVSS No. 105, or the indicator lamp requirements specified in this paragraph for vehicles which were not subject to FMVSS No. 105 on the date of manufacture.)

(c) *Air brakes.* A commercial motor vehicle (regardless of the date of manufacture) equipped with service brakes activated by compressed air (air brakes) or a commercial motor vehicle towing a vehicle with service brakes activated by compressed air (air brakes) must be equipped with a pressure gauge and a warning signal. Trucks, truck tractors, and buses manufactured on or after March 1, 1975, must, at a minimum, have a pressure gauge and a warning signal which meets the requirements of FMVSS No. 121 (S5.1.4 for the pressure gauge and S5.1.5 for the warning signal) applicable to the vehicle on the date of manufacture of the vehicle. Power units to which FMVSS No. 571.121 was not applicable on the date of manufacture of the vehicle must be equipped with—

(1) A pressure gauge, visible to a person seated in the normal driving position, which indicates the air pressure (in kilopascals (kPa) or pounds per square inch (psi)) available for braking; and

(2) A warning signal that is audible or visible to a person in the normal driving position and provides a continuous warning to the driver whenever the air pressure in the service reservoir system is at 379 kPa (55 psi) and below, or one-half of the compressor governor cutout pressure, whichever is less.

(d) *Vacuum brakes.* A commercial motor vehicle (regardless of the date it was manufactured) having service brakes activated by vacuum or a vehicle towing a vehicle having service brakes activated by vacuum must be equipped with—

(1) A vacuum gauge, visible to a person seated in the normal driving position, which indicates the vacuum (in millimeters or inches of mercury) available for braking; and

(2) A warning signal that is audible or visible to a person in the normal driving position and provides a continuous warning to the driver whenever the vacuum in the vehicle's supply reservoir is less than 203 mm (8 inches) of mercury.

(e) *Hydraulic brakes applied or assisted by air or vacuum.* Each vehicle equipped with hydraulically activated service brakes which are applied or assisted by compressed air or vacuum, and to which FMVSS No. 105 was not applicable on the date of manufacture, must be equipped with a warning signal that conforms to paragraph (b) of this section for the hydraulic portion of the system; paragraph (c) of this section for the air assist/air applied portion; or paragraph (d) of this section for the vacuum assist/vacuum applied portion. This paragraph shall not be construed as requiring air pressure gauges or vacuum gauges, only warning signals.

(f) *Exceptions.* The rules in paragraphs (c), (d) and (e) of this section do not apply to property carrying commercial motor vehicles which have less than three axles and (1) were manufactured before July 1, 1973, and (2) have a manufacturer's gross vehicle weight rating less than 4,536 kg (10,001 pounds).

[70 FR 48052, Aug. 15, 2005]

§ 393.52 **Brake performance.**

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(a) Upon application of its service brakes, a motor vehicle or combination of motor vehicles must under any condition of loading in which it is found on a public highway, be capable of —

(1) Developing a braking force at least equal to the percentage of its gross weight specified

in the table in paragraph (d) of this section;

(2) Decelerating to a stop from 20 miles per hour at not less than the rate specified in the table in paragraph (d) of this section; and

(3) Stopping from 20 miles per hour in a distance, measured from the point at which movement of the service brake pedal or control begins, that is not greater than the distance specified in the table in paragraph (d) of this section; or, for motor vehicles or motor vehicle combinations that have a GVWR or GVW greater than 4,536 kg (10,000 pounds),

(4) Developing only the braking force specified in paragraph (a)(1) of this section and the stopping distance specified in paragraph (a)(3) of this section, if braking force is measured by a performance-based brake tester which meets the requirements of functional specifications for performance-based brake testers for commercial motor vehicles, where braking force is the sum of the braking force at each wheel of the vehicle or vehicle combination as a percentage of gross vehicle or combination weight.

(b) Upon application of its emergency brake system and with no other brake system applied, a motor vehicle or combination of motor vehicles must, under any condition of loading in which it is found on a public highway, be capable of stopping from 20 miles per hour in a distance, measured from the point at which movement of the emergency brake control begins, that is not greater than the distance specified in the table in paragraph (d) of this section.

(c) Conformity to the stopping-distance requirements of paragraphs (a) and (b) of this section shall be determined under the following conditions:

(1) Any test must be made with the vehicle on a hard surface that is substantially level, dry, smooth, and free of loose material.

(2) The vehicle must be in the center of a 12-foot-wide lane when the test begins and must not deviate from that lane during the test.

(d) Vehicle brake performance table:

Application and Type of motor vehicle		Emergency brake	Service systems
Deceleration in	Application and Type of motor vehicle braking	Braking force as a percentage of gross vehicle or combination weight	Braking force as a percentage of gross vehicle or combination weight

second	distance in	distance in	of gross	feet per
second	feet from	feet from	vehicle or	per
initial speed	initial speed		combination	
at 20 mph	of 20 mph		weight	

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A. Passenger-carrying vehicles:

21	(1) Vehicles with a seating capacity of 20	54	65.2	
	10 persons or less, including driver, and built on a passenger car chassis...			
17	(2) Vehicles with a seating capacity of 25	66	52.8	
	more than 10 persons, including driver, and built on a passenger car chassis; vehicles built on a truck or bus chassis and having a manufacturer's GVWR of 10,000 pounds or less.....			
14	(3) All other passenger-carrying vehicles.....	85	43.5	

B. Property-carrying vehicles:

17	(1) Single unit vehicles having a manufacturer's GVWR of 10,000 pounds or less.....	66	52.8	
14	(2) Single unit vehicles having a manufacturer's GVWR of more than 10,000 pounds, except truck tractors. Combinations of a 2-axle towing vehicle and trailer having a GVWR of 3,000 pounds or less. All combinations of 2 or less vehicles in drive-away or tow-away operation.....	85	43.5	
14	(3) All other property-carrying vehicles and combinations of property-carrying vehicles.....	90	43.5	

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Notes: (a) There is a definite mathematical relationship between the figures in columns 2 and 3. If the decelerations set forth in column 3 are divided by 32.2 feet per-second per-second, the figures in column 2 will be obtained. (For example, 21 divided by 32.2 equals 65.2 percent.) Column 2 is included in the tabulation because certain brake testing devices utilize this factor. (b) The decelerations specified in column 3 are an indication of the effectiveness of the basic brakes, and as measured in practical brake testing are the maximum decelerations attained at some time during the stop. These

decelerations as measured in brake tests cannot be used to compute the values in column 4 because the deceleration is not sustained at the same rate over the entire period of the stop. The deceleration increases from zero to a maximum during a period of brake system application and brake-force buildup. Also, other factors may cause the deceleration to decrease after reaching a maximum. The added distance that results because maximum deceleration is not sustained is included in the figures in column 4 but is not indicated by the usual brake-testing devices for checking deceleration.

(c) The distances in column 4 and the decelerations in column 3 are not directly related. ``Brake-system application and braking distance in feet'' (column 4) is a definite measure of the overall effectiveness of the braking system, being the distance traveled between the point at which the driver starts to move the braking controls and the point at which the vehicle comes to rest. It includes distance traveled while the brakes are being applied and distance traveled while the brakes are retarding the vehicle.

(d) The distance traveled during the period of brake-system application and brake-force buildup varies with vehicle type, being negligible for many passenger cars and greatest for combinations of commercial vehicles. This fact accounts for the variation from 20 to 40 feet in the values in column 4 for the various classes of vehicles.

(e) The terms ``GVWR'' and ``GVW'' refer to the manufacturer's gross vehicle weight rating and the actual gross vehicle weight, respectively.

[36 FR 20298, Oct. 20, 1971, as amended at 37 FR 5251, Mar. 11, 1972; 37 FR 11336, June 7, 1972; 68 FR 51777, Aug. 9, 2002]

**§ 393.53 Automatic brake adjusters and brake adjustment indicators.**

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(a) *Automatic brake adjusters (hydraulic brake systems)*. Each commercial motor vehicle manufactured on or after October 20, 1993, and equipped with a hydraulic brake system, shall meet the automatic brake adjustment system requirements of Federal Motor Vehicle Safety Standard No. 105 (49 CFR 571.105, S5.1) applicable to the vehicle at the time it was manufactured.

(b) *Automatic brake adjusters (air brake systems)*. Each commercial motor vehicle manufactured on or after October 20, 1994, and equipped with an air brake system shall meet the automatic brake adjustment system requirements of Federal Motor Vehicle Safety Standard No. 121 (49 CFR 571.121, S5.1.8) applicable to the vehicle at the time it was manufactured.

(c) *Brake adjustment indicator (air brake systems)*. On each commercial motor vehicle



manufactured on or after October 20, 1994, and equipped with an air brake system which contains an external automatic adjustment mechanism and an exposed pushrod, the condition of service brake under-adjustment shall be displayed by a brake adjustment indicator conforming to the requirements of Federal Motor Vehicle Safety Standard No. 121 (49 CFR 571.121, S5.1.8) applicable to the vehicle at the time it was manufactured.

[60 FR 46245, Sept. 6, 1995]

**§ 393.55 Antilock brake systems.**

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(a) *Hydraulic brake systems.* Each truck and bus manufactured on or after March 1, 1999 (except trucks and buses engaged in driveaway-towaway operations), and equipped with a hydraulic brake system, shall be equipped with an antilock brake system that meets the requirements of Federal Motor Vehicle Safety Standard (FMVSS) No. 105 (49 CFR 571.105, S5.5).

(b) *ABS malfunction indicators for hydraulic braked vehicles.* Each hydraulic braked vehicle subject to the requirements of paragraph (a) of this section shall be equipped with an ABS malfunction indicator system that meets the requirements of FMVSS No. 105 (49 CFR 571.105, S5.3).

(c) *Air brake systems.* (1) Each truck tractor manufactured on or after March 1, 1997 (except truck tractors engaged in driveaway-towaway operations), shall be equipped with an antilock brake system that meets the requirements of FMVSS No. 121 (49 CFR 571.121, S5.1.6.1(b)).

(2) Each air braked commercial motor vehicle other than a truck tractor, manufactured on or after March 1, 1998 (except commercial motor vehicles engaged in driveaway-towaway operations), shall be equipped with an antilock brake system that meets the requirements of FMVSS No. 121 (49 CFR 571.121, S5.1.6.1(a) for trucks and buses, S5.2.3 for semitrailers, converter dollies and full trailers).

(d) *ABS malfunction circuits and signals for air braked vehicles.* (1) Each truck tractor manufactured on or after March 1, 1997, and each single-unit air braked vehicle manufactured on or after March 1, 1998, subject to the requirements of paragraph (c) of this section, shall be equipped with an electrical circuit that is capable of signaling a malfunction that affects the generation or transmission of response or control signals to the vehicle's antilock brake system (49 CFR 571.121, S5.1.6.2(a)).

(2) Each truck tractor manufactured on or after March 1, 2001, and each single-unit vehicle that is equipped to tow another air-braked vehicle, subject to the requirements of paragraph (c) of this section, shall be equipped with an electrical circuit that is capable of transmitting a malfunction signal from the antilock brake system(s) on the towed vehicle(s) to the trailer

ABS malfunction lamp in the cab of the towing vehicle, and shall have the means for connection of the electrical circuit to the towed vehicle. The ABS malfunction circuit and signal shall meet the requirements of FMVSS No. 121 (49 CFR 571.121, S5.1.6.2(b)).

(3) Each semitrailer, trailer converter dolly, and full trailer manufactured on or after March 1, 2001, and subject to the requirements of paragraph (c)(2) of this section, shall be equipped with an electrical circuit that is capable of signaling a malfunction in the trailer's antilock brake system, and shall have the means for connection of this ABS malfunction circuit to the towing vehicle. In addition, each trailer manufactured on or after March 1, 2001, subject to the requirements of paragraph (c)(2) of this section, that is designed to tow another air-brake equipped trailer shall be capable of transmitting a malfunction signal from the antilock brake system(s) of the trailer(s) it tows to the vehicle in front of the trailer. The ABS malfunction circuit and signal shall meet the requirements of FMVSS No. 121 (49 CFR 571.121, S5.2.3.2).

(e) *Exterior ABS malfunction indicator lamps for trailers.* Each trailer (including a trailer converter dolly) manufactured on or after March 1, 1998 and before March 1, 2009, and subject to the requirements of paragraph (c)(2) of this section, shall be equipped with an ABS malfunction indicator lamp which meets the requirements of FMVSS No. 121 (49 CFR 571.121, S5.2.3.3).

[63 FR 24465, May 4, 1998]

#### **Subpart D—Glazing and Window Construction**

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#### **§ 393.60 Glazing in specified openings.**

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(a) *Glazing material.* Glazing material used in windshields, windows, and doors on a motor vehicle manufactured on or after December 25, 1968, shall at a minimum meet the requirements of Federal Motor Vehicle Safety Standard (FMVSS) No. 205 in effect on the date of manufacture of the motor vehicle. The glazing material shall be marked in accordance with FMVSS No. 205 (49 CFR 571.205, S6).

(b) *Windshields required.* Each bus, truck and truck-tractor shall be equipped with a windshield. Each windshield or portion of a multi-piece windshield shall be mounted using the full periphery of the glazing material.

(c) *Windshield condition.* With the exception of the conditions listed in paragraphs (c)(1), (c)(2), and (c)(3) of this section, each windshield shall be free of discoloration or damage in the area extending upward from the height of the top of the steering wheel (excluding a 51 mm (2 inch) border at the top of the windshield) and extending from a 25 mm (1 inch)

border at each side of the windshield or windshield panel. *Exceptions:*

- (1) Coloring or tinting which meets the requirements of paragraph (d) of this section;
- (2) Any crack that is not intersected by any other cracks;
- (3) Any damaged area which can be covered by a disc 19 mm ( 3/4 inch) in diameter if not closer than 76 mm (3 inches) to any other similarly damaged area.

(d) *Coloring or tinting of windshields and windows.* Coloring or tinting of windshields and the windows to the immediate right and left of the driver is allowed, provided the parallel luminous transmittance through the colored or tinted glazing is not less than 70 percent of the light at normal incidence in those portions of the windshield or windows which are marked as having a parallel luminous transmittance of not less than 70 percent. The transmittance restriction does not apply to other windows on the commercial motor vehicle.

(e) *Prohibition on obstructions to the driver's field of view—*(1) *Devices mounted at the top of the windshield.* Antennas, transponders, and similar devices must not be mounted more than 152 mm (6 inches) below the upper edge of the windshield. These devices must be located outside the area swept by the windshield wipers, and outside the driver's sight lines to the road and highway signs and signals.

(2) *Decals and stickers mounted on the windshield.* Commercial Vehicle Safety Alliance (CVSA) inspection decals, and stickers and/or decals required under Federal or State laws may be placed at the bottom or sides of the windshield provided such decals or stickers do not extend more than 115 mm (4 1/2 inches) from the bottom of the windshield and are located outside the area swept by the windshield wipers, and outside the driver's sight lines to the road and highway signs or signals.

[63 FR 1387, Jan. 9, 1998]

**§ 393.61 Truck and truck tractor window construction.**

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Each truck and truck tractor (except trucks engaged in armored car service) shall have at least one window on each side of the driver's compartment. Each window must have a minimum area of 1,290 cm<sup>2</sup> (200 in<sup>2</sup>) formed by a rectangle 33 cm by 45 cm (13 inches by 17 3/4 inches). The maximum radius of the corner arcs shall not exceed 152 mm (6 inches). The long axis of the rectangle shall not make an angle of more than 45 degrees with the surface on which the unladen vehicle stands. If the cab is designed with a folding door or doors or with clear openings where doors or windows are customarily located, no windows shall be required in those locations.

[70 FR 48052, Aug. 15, 2005]

§ 393.62 **Emergency exits for buses.**

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(a) *Buses manufactured on or after September 1, 1994.* Each bus with a GVWR of 4,536 kg (10,000 pounds) or less must meet the emergency exit requirements of FMVSS No. 217 (S5.2.2.3) in effect on the date of manufacture. Each bus with a GVWR of more than 4,536 kg (10,000 pounds) must have emergency exits which meet the applicable emergency exit requirements of FMVSS No. 217 (S5.2.2 or S5.2.3) in effect on the date of manufacture.

(b) Buses manufactured on or after September 1, 1973, but before September 1, 1994. (1) Each bus (including a school bus used in interstate commerce for non-school bus operations) with a GVWR of more than 4,536 kg (10,000 lbs) must meet the requirements of FMVSS No. 217, S5.2.2 in effect on the date of manufacture.

(2) Each bus (including a school bus used in interstate commerce for non-school bus operations) with a GVWR of 4,536 kg (10,000 lbs) or less must meet the requirements of FMVSS No. 217, S5.2.2.3 in effect on the date of manufacture.

(c) *Buses manufactured before September 1, 1973.* For each seated passenger space provided, inclusive of the driver there shall be at least 432 cm<sup>2</sup> (67 square inches) of glazing if such glazing is not contained in a push-out window; or, at least 432 cm<sup>2</sup> (67 square inches) of free opening resulting from opening of a push-out type window. No area shall be included in this minimum prescribed area unless it will provide an unobstructed opening of at least 1,290 cm<sup>2</sup> (200 in<sup>2</sup>) formed by a rectangle 33 cm by 45 cm (13 inches by 17 3/4 inches). The maximum radius of the corner arcs shall not exceed 152 mm (6 inches). The long axis of the rectangle shall not make an angle of more than 45 degrees with the surface on which the unladen vehicle stands. The area shall be measured either by removal of the glazing if not of the push-out type, or of the movable sash if of the push-out type. The exit must comply with paragraph (d) of this section. Each side of the bus must have at least 40 percent of emergency exit space required by this paragraph.

(d) *Laminated safety glass/push-out window requirements for buses manufactured before September 1, 1973.* Emergency exit space used to satisfy the requirements of paragraph (c) of this section must have laminated safety glass or push-out windows designed and maintained to yield outward to provide a free opening.

(1) *Safety glass.* Laminated safety glass must meet Test No. 25, Egress, of American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways—Safety Standards ANSI/SAE Z26.1/96, August 1997. (See §393.7 (b) for information on incorporation by reference and availability of this document.)

(2) *Push-out windows.* Each push-out window shall be releasable by operating no more than two mechanisms and allow manual release of the exit by a single occupant. For mechanisms which require rotary or straight (parallel to the undisturbed exit surface) motions to operate the exit, no more than 89 Newtons (20 pounds) of force shall be required to release the exit. For exits which require a straight motion perpendicular to the undisturbed exit surface, no more than 267 Newtons (60 pounds) shall be required to release the exit.

(e) *Emergency exit identification.* Each bus and each school bus used in interstate commerce for non-school bus operations, manufactured on or after September 1, 1973, shall meet the applicable emergency exit identification or marking requirements of FMVSS No. 217, S5.5, in effect on the date of manufacture. The emergency exits and doors on all buses (including school buses used in interstate commerce for non-school bus operations) must be marked “Emergency Exit” or “Emergency Door” followed by concise operating instructions describing each motion necessary to unlatch or open the exit located within 152 mm (6 inches) of the release mechanism.

(f) *Exception for the transportation of prisoners.* The requirements of this section do not apply to buses used exclusively for the transportation of prisoners.

[70 FR 48052, Aug. 15, 2005]

§ 393.63 [Reserved]

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**Subpart E—Fuel Systems**

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**Authority:** Sec. 204, Interstate Commerce Act, as amended, 49 U.S.C. 304; sec. 6, Department of Transportation Act, 49 U.S.C. 1655; delegation of authority at 49 CFR 1.48 and 389.4.

§ 393.65 **All fuel systems.**

[↑ top](#)

(a) *Application of the rules in this section.* The rules in this section apply to systems for containing and supplying fuel for the operation of motor vehicles or for the operation of auxiliary equipment installed on, or used in connection with, motor vehicles.

(b) *Location.* Each fuel system must be located on the motor vehicle so that—

(1) No part of the system extends beyond the widest part of the vehicle;

- (2) No part of a fuel tank is forward of the front axle of a power unit;
  - (3) Fuel spilled vertically from a fuel tank while it is being filled will not contact any part of the exhaust or electrical systems of the vehicle, except the fuel level indicator assembly;
  - (4) Fill pipe openings are located outside the vehicle's passenger compartment and its cargo compartment;
  - (5) A fuel line does not extend between a towed vehicle and the vehicle that is towing it while the combination of vehicles is in motion; and
  - (6) No part of the fuel system of a bus manufactured on or after January 1, 1973, is located within or above the passenger compartment.
- (c) *Fuel tank installation.* Each fuel tank must be securely attached to the motor vehicle in a workmanlike manner.
- (d) *Gravity or syphon feed prohibited.* A fuel system must not supply fuel by gravity or syphon feed directly to the carburetor or injector.
- (e) *Selection control valve location.* If a fuel system includes a selection control valve which is operable by the driver to regulate the flow of fuel from two or more fuel tanks, the valve must be installed so that either—
- (1) The driver may operate it while watching the roadway and without leaving his/her driving position; or
  - (2) The driver must stop the vehicle and leave his/her seat in order to operate the valve.
- (f) *Fuel lines.* A fuel line which is not completely enclosed in a protective housing must not extend more than 2 inches below the fuel tank or its sump. Diesel fuel crossover, return, and withdrawal lines which extend below the bottom of the tank or sump must be protected against damage from impact. Every fuel line must be—
- (1) Long enough and flexible enough to accommodate normal movements of the parts to which it is attached without incurring damage; and
  - (2) Secured against chafing, kinking, or other causes of mechanical damage.
- (g) *Excess flow valve.* When pressure devices are used to force fuel from a fuel tank, a device which prevents the flow of fuel from the fuel tank if the fuel feed line is broken must be installed in the fuel system.

[36 FR 15445, Aug. 14, 1971, as amended at 37 FR 4341, Mar. 2, 1972; 37 FR 28752, Dec.

29, 1972]

§ 393.67 **Liquid fuel tanks.**

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(a) *Application of the rules in this section.* The rules in this section apply to tanks containing or supplying fuel for the operation of commercial motor vehicles or for the operation of auxiliary equipment installed on, or used in connection with commercial motor vehicles.

(1) A liquid fuel tank manufactured on or after January 1, 1973, and a side-mounted gasoline tank must conform to all rules in this section.

(2) A diesel fuel tank manufactured before January 1, 1973, and mounted on a bus must conform to the rules in paragraphs (c)(7)(iii) and (d)(2) of this section.

(3) A diesel fuel tank manufactured before January 1, 1973, and mounted on a vehicle other than a bus must conform to the rules in paragraph (c)(7)(iii) of this section.

(4) A gasoline tank, other than a side-mounted gasoline tank, manufactured before January 1, 1973, and mounted on a bus must conform to the rules in paragraphs (c) (1) through (10) and (d)(2) of this section.

(5) A gasoline tank, other than a side-mounted gasoline tank, manufactured before January 1, 1973, and mounted on a vehicle other than a bus must conform to the rules in paragraphs (c) (1) through (10), inclusive, of this section.

(6) Private motor carrier of passengers. Motor carriers engaged in the private transportation of passengers may continue to operate a commercial motor vehicle which was not subject to this section or 49 CFR 571.301 at the time of its manufacture, provided the fuel tank of such vehicle is maintained to the original manufacturer's standards.

(7) Motor vehicles that meet the fuel system integrity requirements of 49 CFR 571.301 are exempt from the requirements of this subpart, as they apply to the vehicle's fueling system.

(b) *Definitions.* As used in this section—

(1) The term *liquid fuel tank* means a fuel tank designed to contain a fuel that is liquid at normal atmospheric pressures and temperatures.

(2) A *side-mounted* fuel tank is a liquid fuel tank which—

(i) If mounted on a truck tractor, extends outboard of the vehicle frame and outside of the plan view outline of the cab; or

(ii) If mounted on a truck, extends outboard of a line parallel to the longitudinal centerline of the truck and tangent to the outboard side of a front tire in a straight ahead position. In determining whether a fuel tank on a truck or truck tractor is side-mounted, the fill pipe is not considered a part of the tank.

(c) *Construction of liquid fuel tanks*—(1) *Joints*. Joints of a fuel tank body must be closed by arc-, gas-, seam-, or spot-welding, by brazing, by silver soldering, or by techniques which provide heat resistance and mechanical securement at least equal to those specifically named. Joints must not be closed solely by crimping or by soldering with a lead-based or other soft solder.

(2) *Fittings*. The fuel tank body must have flanges or spuds suitable for the installation of all fittings.

(3) *Threads*. The threads of all fittings must be Dryseal American Standard Taper Pipe Thread or Dryseal SAE Short Taper Pipe Thread, specified in Society of Automotive Engineers Standard J476, as contained in the 1971 edition of the “SAE Handbook,” except that straight (nontapered) threads may be used on fittings having integral flanges and using gaskets for sealing. At least four full threads must be in engagement in each fitting.

(4) *Drains and bottom fittings*. (i) Drains or other bottom fittings must not extend more than three-fourths of an inch below the lowest part of the fuel tank or sump.

(ii) Drains or other bottom fittings must be protected against damage from impact.

(iii) If a fuel tank has drains the drain fittings must permit substantially complete drainage of the tank.

(iv) Drains or other bottom fittings must be installed in a flange or spud designed to accommodate it.

(5) *Fuel withdrawal fittings*. Except for diesel fuel tanks, the fittings through which fuel is withdrawn from a fuel tank must be located above the normal level of fuel in the tank when the tank is full.

(6) [Reserved]

(7) *Fill pipe*. (i) Each fill pipe must be designed and constructed to minimize the risk of fuel spillage during fueling operations and when the vehicle is involved in a crash.

(ii) For diesel-fueled vehicles, the fill pipe and vents of a fuel tank having a capacity of more than 94.75 L (25 gallons) of fuel must permit filling the tank with fuel at a rate of at least 75.8 L/m (20 gallons per minute) without fuel spillage.

(iii) For gasoline- and methanol-fueled vehicles with a GVWR of 3,744 kg (8,500 pounds)



or less, the vehicle must permit filling the tank with fuel dispensed at the applicable fill rate required by the regulations of the Environmental Protection Agency under 40 CFR 80.22.

(iv) For gasoline- and methanol-fueled vehicles with a GVWR of 14,000 pounds (6,400 kg) or less, the vehicle must comply with the applicable fuel-spitback prevention and onboard refueling vapor recovery regulations of the Environmental Protection Agency under 40 CFR part 86.

(v) Each fill pipe must be fitted with a cap that can be fastened securely over the opening in the fill pipe. Screw threads or a bayonet-type point are methods of conforming to the requirements of paragraph (c) of this section.

(8) *Safety venting system.* A liquid fuel tank with a capacity of more than 25 gallons of fuel must have a venting system which, in the event the tank is subjected to fire, will prevent internal tank pressure from rupturing the tank's body, seams, or bottom opening (if any).

(9) *Pressure resistance.* The body and fittings of a liquid fuel tank with a capacity of more than 25 gallons of fuel must be capable of withstanding an internal hydrostatic pressure equal to 150 percent of the maximum internal pressure reached in the tank during the safety venting systems test specified in paragraph (d)(1) of this section.

(10) *Air vent.* Each fuel tank must be equipped with a nonspill air vent (such as a ball check). The air vent may be combined with the fill-pipe cap or safety vent, or it may be a separate unit installed on the fuel tank.

(11) *Markings.* If the body of a fuel tank is readily visible when the tank is installed on the vehicle, the tank must be plainly marked with its liquid capacity. The tank must also be plainly marked with a warning against filling it to more than 95 percent of its liquid capacity.

(12) *Overflow restriction.* A liquid fuel tank manufactured on or after January 1, 1973, must be designed and constructed so that—

(i) The tank cannot be filled, in a normal filling operation, with a quantity of fuel that exceeds 95 percent of the tank's liquid capacity; and

(ii) When the tank is filled, normal expansion of the fuel will not cause fuel spillage.

(d) *Liquid fuel tank tests.* Each liquid fuel tank must be capable of passing the tests specified in paragraphs (d)(1) and (2) of this section. The specified tests are a measure of performance only. Alternative procedures which assure that equipment meets the required performance standards may be used. .

(1) *Safety venting system test—(i) Procedure.* Fill the tank three-fourths full with fuel, seal the fuel feed outlet, and invert the tank. When the fuel temperature is between 50 °F. and 80

°F., apply an enveloping flame to the tank so that the temperature of the fuel rises at a rate of not less than 6 °F. and not more than 8 °F. per minute.

(ii) *Required performance.* The safety venting system required by paragraph (c)(8) of this section must activate before the internal pressure in the tank exceeds 50 pounds per square inch, gauge, and the internal pressure must not thereafter exceed the pressure at which the system activated by more than five pounds per square inch despite any further increase in the temperature of the fuel.

(2) *Leakage test—(i) Procedure.* Fill the tank to capacity with fuel having a temperature between 50 °F. and 80 °F. With the fill-pipe cap installed, turn the tank through an angle of 150° in any direction about any axis from its normal position.

(ii) *Required performance.* Neither the tank nor any fitting may leak more than a total of one ounce by weight of fuel per minute in any position the tank assumes during the test.

(e) *Side-mounted liquid fuel tank tests.* Each side-mounted liquid fuel tank must be capable of passing the tests specified in paragraphs (e)(1) and (2) of this section and the test specified in paragraphs (d)(1) and (2) of this section. The specified tests are a measure of performance only. Alternative procedures which assure that equipment meets the required performance criteria may be used.

(1) *Drop test—(i) Procedure.* Fill the tank with a quantity of water having a weight equal to the weight of the maximum fuel load of the tank and drop the tank 30 feet onto an unyielding surface so that it lands squarely on one corner.

(ii) *Required performance.* Neither the tank nor any fitting may leak more than a total of 1 ounce by weight of water per minute.

(2) *Fill-pipe test—(i) Procedure.* Fill the tank with a quantity of water having a weight equal to the weight of the maximum fuel load of the tank and drop the tank 10 feet onto an unyielding surface so that it lands squarely on its fill-pipe.

(ii) *Required performance.* Neither the tank nor any fitting may leak more than a total of 1 ounce by weight of water per minute.

(f) *Certification and markings.* Each liquid fuel tank shall be legibly and permanently marked by the manufacturer with the following minimum information:

(1) The month and year of manufacture,

(2) The manufacturer's name on tanks manufactured on and after July 1, 1989, and means of identifying the facility at which the tank was manufactured, and

(3) A certificate that it conforms to the rules in this section applicable to the tank. The

certificate must be in the form set forth in either of the following:

(i) If a tank conforms to all rules in this section pertaining to side-mounted fuel tanks: “Meets all FMCSA side-mounted tank requirements.”

(ii) If a tank conforms to all rules in this section pertaining to tanks which are not side-mounted fuel tanks: “Meets all FMCSA requirements for non-side-mounted fuel tanks.”

(iii) The form of certificate specified in paragraph (f)(3) (i) or (ii) of this section may be used on a liquid fuel tank manufactured before July 11, 1973, but it is not mandatory for liquid fuel tanks manufactured before March 7, 1989. The form of certification manufactured on or before March 7, 1989, must meet the requirements in effect at the time of manufacture.

(4) *Exception.* The following previously exempted vehicles are *not* required to carry the certification and marking specified in paragraphs (f)(1) through (3) of this section:

(i) Ford vehicles with GVWR over 10,000 pounds identified as follows: The vehicle identification numbers (VINs) contain A, K, L, M, N, W, or X in the fourth position.

(ii) GM G-Vans (Chevrolet Express and GMC Savanna) and full-sized C/K trucks (Chevrolet Silverado and GMC Sierra) with GVWR over 10,000 pounds identified as follows: The VINs contain either a “J” or a “K” in the fourth position. In addition, the seventh position of the VINs on the G-Van will contain a “1.”

[36 FR 15445, Aug. 14, 1971, as amended at 37 FR 4341, Mar. 2, 1972; 37 FR 28753, Dec. 29, 1972; 45 FR 46424, July 10, 1980; 53 FR 49400, Dec. 7, 1988; 59 FR 8753, Feb. 23, 1994; 69 FR 31305, June 3, 2004; 70 FR 48053, Aug. 15, 2005]

#### **§ 393.68 Compressed natural gas fuel containers.**

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(a) *Applicability.* The rules in this section apply to compressed natural gas (CNG) fuel containers used for supplying fuel for the operation of commercial motor vehicles or for the operation of auxiliary equipment installed on, or used in connection with commercial motor vehicles.

(b) *CNG containers manufactured on or after March 26, 1995.* Any motor vehicle manufactured on or after March 26, 1995, and equipped with a CNG fuel tank must meet the CNG container requirements of FMVSS No. 304 (49 CFR 571.304) in effect at the time of manufacture of the vehicle.

(c) *Labeling.* Each CNG fuel container shall be permanently labeled in accordance with the

requirements of FMVSS No. 304, S7.4.

[70 FR 48053, Aug. 15, 2005]

**§ 393.69 Liquefied petroleum gas systems.**

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(a) A fuel system that uses liquefied petroleum gas as a fuel for the operation of a motor vehicle or for the operation of auxiliary equipment installed on, or used in connection with, a motor vehicle must conform to the “Standards for the Storage and Handling of Liquefied Petroleum Gases” of the National Fire Protection Association, Battery March Park, Quincy, MA 02269, as follows:

(1) A fuel system installed before December 31, 1962, must conform to the 1951 edition of the Standards.

(2) A fuel system installed on or after December 31, 1962, and before January 1, 1973, must conform to Division IV of the June 1959 edition of the Standards.

(3) A fuel system installed on or after January 1, 1973, and providing fuel for propulsion of the motor vehicle must conform to Division IV of the 1969 edition of the Standards.

(4) A fuel system installed on or after January 1, 1973, and providing fuel for the operation of auxiliary equipment must conform to Division VII of the 1969 edition of the Standards.

(b) When the rules in this section require a fuel system to conform to a specific edition of the Standards, the fuel system may conform to the applicable provisions in a later edition of the Standards specified in this section.

(c) The tank of a fuel system must be marked to indicate that the system conforms to the Standards.

[36 FR 15445, Aug. 14, 1971, as amended at 37 FR 4342, Mar. 2, 1972; 41 FR 53031, Dec. 3, 1976; 53 FR 49400, Dec. 7, 1988]

**Subpart F—Coupling Devices and Towing Methods**

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**§ 393.70 Coupling devices and towing methods, except for driveaway-towaway operations.**

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(a) *Tracking.* When two or more vehicles are operated in combination, the coupling devices

connecting the vehicles shall be designed, constructed, and installed, and the vehicles shall be designed and constructed, so that when the combination is operated in a straight line on a level, smooth, paved surface, the path of the towed vehicle will not deviate more than 3 inches to either side of the path of the vehicle that tows it.

(b) *Fifth wheel assemblies*—(1) *Mounting*—(i) *Lower half*. The lower half of a fifth wheel mounted on a truck tractor or converter dolly must be secured to the frame of that vehicle with properly designed brackets, mounting plates or angles and properly tightened bolts of adequate size and grade, or devices that provide equivalent security. The installation shall not cause cracking, warping, or deformation of the frame. The installation must include a device for positively preventing the lower half of the fifth wheel from shifting on the frame to which it is attached.

(ii) *Upper half*. The upper half of a fifth wheel must be fastened to the motor vehicle with at least the same security required for the installation of the lower half on a truck tractor or converter dolly.

(2) *Locking*. Every fifth wheel assembly must have a locking mechanism. The locking mechanism, and any adapter used in conjunction with it, must prevent separation of the upper and lower halves of the fifth wheel assembly unless a positive manual release is activated. The release may be located so that the driver can operate it from the cab. If a motor vehicle has a fifth wheel designed and constructed to be readily separable, the fifth wheel locking devices shall apply automatically on coupling.

(3) *Location*. The lower half of a fifth wheel shall be located so that, regardless of the condition of loading, the relationship between the kingpin and the rear axle or axles of the towing motor vehicle will properly distribute the gross weight of both the towed and towing vehicles on the axles of those vehicles, will not unduly interfere with the steering, braking, and other maneuvering of the towing vehicle, and will not otherwise contribute to unsafe operation of the vehicles comprising the combination. The upper half of a fifth wheel shall be located so that the weight of the vehicles is properly distributed on their axles and the combination of vehicles will operate safely during normal operation.

(c) *Towing of full trailers*. A full trailer must be equipped with a tow-bar and a means of attaching the tow-bar to the towing and towed vehicles. The tow-bar and the means of attaching it must—

(1) Be structurally adequate for the weight being drawn;

(2) Be properly and securely mounted;

(3) Provide for adequate articulation at the connection without excessive slack at that location; and

(4) Be provided with a locking device that prevents accidental separation of the towed and

towing vehicles. The mounting of the trailer hitch (pintle hook or equivalent mechanism) on the towing vehicle must include reinforcement or bracing of the frame sufficient to produce strength and rigidity of the frame to prevent its undue distortion.

(d) *Safety devices in case of tow-bar failure or disconnection.* Every full trailer and every converter dolly used to convert a semitrailer to a full trailer must be coupled to the frame, or an extension of the frame, of the motor vehicle which tows it with one or more safety devices to prevent the towed vehicle from breaking loose in the event the tow-bar fails or becomes disconnected. The safety device must meet the following requirements:

(1) The safety device must not be attached to the pintle hook or any other device on the towing vehicle to which the tow-bar is attached. However, if the pintle hook or other device was manufactured prior to July 1, 1973, the safety device may be attached to the towing vehicle at a place on a pintle hook forging or casting if that place is independent of the pintle hook.

(2) The safety device must have no more slack than is necessary to permit the vehicles to be turned properly.

(3) The safety device, and the means of attaching it to the vehicles, must have an ultimate strength of not less than the gross weight of the vehicle or vehicles being towed.

(4) The safety device must be connected to the towed and towing vehicles and to the tow-bar in a manner which prevents the tow-bar from dropping to the ground in the event it fails or becomes disconnected.

(5) Except as provided in paragraph (d)(6) of this section, if the safety device consists of safety chains or cables, the towed vehicle must be equipped with either two safety chains or cables or with a bridle arrangement of a single chain or cable attached to its frame or axle at two points as far apart as the configuration of the frame or axle permits. The safety chains or cables shall be either two separate pieces, each equipped with a hook or other means for attachment to the towing vehicle, or a single piece leading along each side of the tow-bar from the two points of attachment on the towed vehicle and arranged into a bridle with a single means of attachment to be connected to the towing vehicle. When a single length of cable is used, a thimble and twin-base cable clamps shall be used to form the forward bridle eye. The hook or other means of attachment to the towing vehicle shall be secured to the chains or cables in a fixed position.

(6) If the towed vehicle is a converter dolly with a solid tongue and without a hinged tow-bar or other swivel between the fifth wheel mounting and the attachment point of the tongue eye or other hitch device—

(i) Safety chains or cables, when used as the safety device for that vehicle, may consist of either two chains or cables or a single chain or cable used alone;

(ii) A single safety device, including a single chain or cable used alone as the safety device, must be in line with the centerline of the trailer tongue; and

(iii) The device may be attached to the converter dolly at any point to the rear of the attachment point of the tongue eye or other hitch device.

(7) Safety devices other than safety chains or cables must provide strength, security of attachment, and directional stability equal to, or greater than, safety chains or cables installed in accordance with paragraphs (d) (5) and (6) of this section.

(8)(i) When two safety devices, including two safety chains or cables, are used and are attached to the towing vehicle at separate points, the points of attachment on the towing vehicle shall be located equally distant from, and on opposite sides of, the longitudinal centerline of the towing vehicle.

(ii) Where two chains or cables are attached to the same point on the towing vehicle, and where a bridle or a single chain or cable is used, the point of attachment must be on the longitudinal centerline or within 152 mm (6 inches) to the right of the longitudinal centerline of the towing vehicle.

(iii) A single safety device, other than a chain or cable, must also be attached to the towing vehicle at a point on the longitudinal centerline or within 152 mm (6 inches) to the right of the longitudinal centerline of the towing vehicle.

[37 FR 21439, Oct. 11, 1972, as amended at 70 FR 48053, Aug. 15, 2005]

**§ 393.71 Coupling devices and towing methods, driveaway-towaway operations.**

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(a) *Number in combination.* (1) No more than three saddle-mounts may be used in any combination.

(2) No more than one tow-bar or ball-and-socket type coupling device may be used in any combination.

(3) When motor vehicles are towed by means of triple saddle-mounts, the towed vehicles shall have brakes acting on all wheels which are in contact with the roadway.

(b) *Carrying vehicles on towing vehicle.* (1) When adequately and securely attached by means equivalent in security to that provided in paragraph (j)(2) of this section, a motor vehicle or motor vehicles may be full-mounted on the structure of a towing vehicle engaged in any driveaway-towaway operation.

(2) No motor vehicle or motor vehicles may be full-mounted on a towing vehicle unless the

relationship of such full-mounted vehicles to the rear axle or axles results in proper distribution of the total gross weight of the vehicles and does not unduly interfere with the steering, braking, or maneuvering of the towing vehicle, or otherwise contribute to the unsafe operation of the vehicles comprising the combination.

(3) Saddle-mounted vehicles must be arranged such that the gross weight of the vehicles is properly distributed to prevent undue interference with the steering, braking, or maneuvering of the combination of vehicles.

(c) *Carrying vehicles on towed vehicles.* (1) When adequately and securely attached by means equivalent in security to that provided in paragraph (j)(2) of this section, a motor vehicle or motor vehicles may be full-mounted on the structure of towed vehicles engaged in any driveaway-towaway operation.

(2) No motor vehicle shall be full-mounted on a motor vehicle towed by means of a tow-bar unless the towed vehicle is equipped with brakes and is provided with means for effective application of brakes acting on all wheels and is towed on its own wheels.

(3) No motor vehicle or motor vehicles shall be full-mounted on a motor vehicle towed by means of a saddle-mount unless the center line of the kingpin or equivalent means of attachment of such towed vehicle shall be so located on the towing vehicle that the relationship to the rear axle or axles results in proper distribution of the total gross weight of the vehicles and does not unduly interfere with the steering, braking, or maneuvering of the towing vehicle or otherwise contribute to the unsafe operation of vehicles comprising the combination; and unless a perpendicular to the ground from the center of gravity of the full-mounted vehicles lies forward of the center line of the rear axle of the saddle-mounted vehicle.

(4) If a motor vehicle towed by means of a double saddle-mount has any vehicle full-mounted on it, such saddle-mounted vehicle shall at all times while so loaded have effective brakes acting on those wheels which are in contact with the roadway.

(d) *Bumper tow-bars on heavy vehicles prohibited.* Tow-bars of the type which depend upon the bumpers as a means of transmitting forces between the vehicles shall not be used to tow a motor vehicle weighing more than 5,000 pounds.

(e) *Front wheels of saddle-mounted vehicles restrained.* A motor vehicle towed by means of a saddle-mount shall have the motion of the front wheels restrained if under any condition of turning of such wheels they will project beyond the widest part of either the towed or towing vehicle.

(f) *Vehicles to be towed in forward position.* Unless the steering mechanism is adequately locked in a straight-forward position, all motor vehicles towed by means of a saddle-mount shall be towed with the front end mounted on the towing vehicle.



(g) *Means required for towing.* No motor vehicles or combination of motor vehicles shall be towed in driveaway-towaway operations by means other than a tow-bar, ball-and-socket type coupling device, saddle-mount connections which meet the requirements of this section, or in the case of a semi-trailer equipped with an upper coupler assembly, a fifth-wheel meeting the requirements of §393.70.

(h) *Requirements for tow-bars.* Tow-bars shall comply with the following requirements:

(1) *Tow-bars, structural adequacy and mounting.* Every tow-bar shall be structurally adequate and properly installed and maintained. To insure that it is structurally adequate, it must, at least, meet the requirements of the following table:

Gross weight of towed vehicle (pounds) \1\	Longitudinal strength in tension and compression \2\		
	All tow- bars	New tow- bars acquired and used by a motor carrier after Sept. 30, 1948	Strength as a beam (in any direction concentrated load at center) 2,3
	Pounds		
Less than 5,000.....	3,000	6,500	3,000
5,000 and over.....	.....	.....	.....
Less than 10,000.....	6,000	(\1\ )	(\1\ )
10,000 and over.....	.....	.....	.....
Less than 15,000.....	9,000	(\1\ )	(\1\ )

\1\ The required strength of tow-bars for towed vehicles of 15,000 pounds and over gross weight and of new tow-bars acquired and used after Sept. 30, 1948, for towed vehicles of 5,000 pounds and over gross weight shall be computed by means of the following formulae:  
 Longitudinal strength=gross weight of towed vehicle x 1.3. Strength as a beam=gross weight of towed vehicle x 0.6.

\2\ In testing, the whole unit shall be tested with all clamps, joints, and pins so mounted and fastened as to approximate conditions of actual operation.

\3\ This test shall be applicable only to tow-bars which are, in normal operation, subjected to a bending movement such as tow-bars for house trailers.

(2) *Tow-bars, jointed.* The tow-bar shall be so constructed as to freely permit motion in both horizontal and vertical planes between the towed and towing vehicles. The means used to provide the motion shall be such as to prohibit the transmission of stresses under normal

operation between the towed and towing vehicles, except along the longitudinal axis of the tongue or tongues.

(3) *Tow-bar fastenings.* The means used to transmit the stresses to the chassis or frames of the towed and towing vehicles may be either temporary structures or bumpers or other integral parts of the vehicles: *Provided, however,* That the means used shall be so constructed, installed, and maintained that when tested as an assembly, failure in such members shall not occur when the weakest new tow-bar which is permissible under paragraph (h)(1) of this section is subjected to the tests given therein.

(4) *Means of adjusting length.* On tow-bars, adjustable as to length, the means used to make such adjustment shall fit tightly and not result in any slackness or permit the tow-bar to bend. With the tow-bar supported rigidly at both ends and with a load of 50 pounds at the center, the sag, measured at the center, in any direction shall not exceed 0.25 inch under any condition of adjustment as to length.

(5) *Method of clamping.* Adequate means shall be provided for securely fastening the tow-bar to the towed and towing vehicles.

(6) *Tow-bar connection to steering mechanism.* The tow-bar shall be provided with suitable means of attachment to and actuation of the steering mechanism, if any, of the towed vehicle. The attachment shall provide for sufficient angularity of movement of the front wheels of the towed vehicle so that it may follow substantially in the path of the towing vehicle without cramping the tow-bar. The tow-bar shall be provided with suitable joints to permit such movement.

(7) *Tracking.* The tow-bar shall be so designed, constructed, maintained, and mounted as to cause the towed vehicle to follow substantially in the path of the towing vehicle. Tow-bars of such design on in our condition as to permit the towed vehicle to deviate more than 3 inches to either side of the path of a towing vehicle moving in a straight line as measured from the center of the towing vehicle are prohibited.

(8) *Passenger car-trailer type couplings.* Trailer couplings used for driveaway-towaway operations of passenger car trailers shall conform to Society of Automotive Engineers Standard No. J684c, "Trailer Couplings and Hitches—Automotive Type," July 1970. <sup>1</sup>

<sup>1</sup> See footnote 1 to §393.24(c).

(9) *Marking tow-bars.* Every tow-bar acquired and used in driveaway-towaway operations by a motor carrier shall be plainly marked with the following certification of the manufacturer thereof (or words of equivalent meaning):

This tow-bar complies with the requirements of the Federal Motor Carrier Safety Administration for (maximum gross weight for which tow-bar is manufactured) vehicles.

Allowable Maximum Gross Weight \_\_\_\_\_  
Manufactured \_\_\_\_\_

(month and year)

by \_\_\_\_\_

(name of manufacturer)

Tow-bar certification manufactured before the effective date of this regulation must meet requirements in effect at the time of manufacture.

(10) *Safety devices in case of tow-bar failure or disconnection.* (i) The towed vehicle shall be connected to the towing vehicle by a safety device to prevent the towed vehicle from breaking loose in the event the tow-bar fails or becomes disconnected. When safety chains or cables are used as the safety device for that vehicle, at least two safety chains or cables meeting the requirements of paragraph (h)(10)(ii) of this section shall be used. The tensile strength of the safety device and the means of attachment to the vehicles shall be at least equivalent to the corresponding longitudinal strength for tow-bars required in the table of paragraph (h)(1) of this section. If safety chains or cables are used as the safety device, the required strength shall be the combined strength of the combination of chains and cables.

(ii) If chains or cables are used as the safety device, they shall be crossed and attached to the vehicles near the points of bumper attachments to the chassis of the vehicles. The length of chain used shall be no more than necessary to permit free turning of the vehicles. The chains shall be attached to the tow-bar at the point of crossing or as close to that point as is practicable.

(iii) A safety device other than safety chains or cables must provide strength, security of attachment, and directional stability equal to, or greater than, that provided by safety chains or cables installed in accordance with paragraph (h)(10)(ii) of this section. A safety device other than safety chains or cables must be designed, constructed, and installed so that, if the tow-bar fails or becomes disconnected, the tow-bar will not drop to the ground.

(i) [Reserved]

(j) *Requirements for upper-half of saddle-mounts.* The upper-half of any saddle-mount shall comply with the following requirements:

(1) *Upper-half connection to towed vehicle.* The upper-half shall be securely attached to the frame or axle of the towed vehicle by means of U-bolts or other means providing at least equivalent security.

(2) *U-bolts or other attachments.* U-bolts used to attach the upper half to the towed vehicle shall be made of steel rod, free of defects, so shaped as to avoid at any point a radius of less than 1 inch: *Provided, however,* That a lesser radius may be utilized if the U-bolt is so fabricated as not to cause more than 5 percent reduction in cross-sectional area at points of curvature, in which latter event the minimum radius shall be one-sixteenth inch. U-bolts

shall have a diameter not less than required by the following table:

Diameter of U-Bolts in Inches

Weight in pounds of heaviest towed vehicle	Double or triple saddle-mount			
	Front mount	Middle or front mount	Rear mount	Single saddle-mount \1\
Up to 5,000.....	0.625	0.5625	0.500	0.500
5,000 and over.....	0.6875	0.625	0.5625	0.5625

\1\ The total weight of all the vehicles being towed shall govern. If other devices are used to accomplish the same purposes as U-bolts they shall have at least equivalent strength of U-bolts made of mild steel. Cast iron shall not be used for clamps or any other holding devices.

(3) *U-bolts and points of support, location.* The distance between the most widely separated U-bolts shall not be less than 9 inches. The distance between the widely separated points where the upper-half supports the towed vehicle shall not be less than 9 inches, except that saddle-mounts employing ball and socket joints shall employ a device which clamps the axle of the towed vehicle throughout a length of not less than 5 inches.

(4) *Cradle-type upper-halves, specifications.* Upper-halves of the cradle-type using vertical members to restrain the towed vehicle from relative movement in the direction of motion of the vehicles shall be substantially constructed and adequate for the purpose. Such cradle-mounts shall be equipped with at least one bolt or equivalent means to provide against relative vertical movement between the upper-half and the towed vehicle. Bolts, if used, shall be at least one-half inch in diameter. Devices using equivalent means shall have at least equivalent strength. The means used to provide against relative vertical motion between the upper-half and the towed vehicle shall be such as not to permit a relative motion of over one-half inch. The distance between the most widely separated points of support between the upper-half and the towed vehicle shall be at least 9 inches.

(5) *Lateral movement of towed vehicle.* (i) Towed vehicles having a straight axle or an axle having a drop of less than 3 inches, unless the saddle-mount is constructed in accordance with paragraph (m)(2) of this section, shall be securely fastened by means of chains or cables to the upper-half so as to insure against relative lateral motion between the towed vehicle and the upper-half. The chains or cables shall be at least 3/16-inch diameter and secured by bolts of at least equal diameter.

(ii) Towed vehicles with an axle with a drop of 3 inches or more, or connected by a saddle-mount constructed in accordance with paragraph (m)(2) of this section, need not be restrained by chains or cables provided that the upper-half is so designed as to provide against such relative motion.

(iii) Chains or cables shall not be required if the upper-half is so designed as positively to provide against lateral movement of the axle.

(k) *Requirements for lower half of saddle-mounts.* The lower half of any saddle-mount shall comply with the following requirements:

(1) *U-bolts or other attachments.* U-bolts used to attach the lower half to the towing vehicle shall be made of steel rod, free of defects, so shaped as to avoid at any point a radius of less than 1 inch: *Provided, however,* That a lesser radius may be utilized if the U-bolt is so fabricated as not to cause more than 5 percent reduction in cross-sectional area at points of curvature, in which latter event the minimum radius shall be one-sixteenth inch. U-bolts shall have a total cross-sectional area not less than as required by the following table:

Total Cross-Sectional Area of U-Bolts in Square Inches

Weight in pounds of heaviest towed vehicle	Double or triple saddle-mount			
	Front mount	Middle or front mount	Rear mount	Single saddle-mount
Up to 5,000.....	1.2	1.0	0.8	0.8
5,000 and over.....	1.4	1.2	1.0	1.0

\1\ The total weight of all the vehicles being towed shall govern. If other devices are used to accomplish the same purposes as U-bolts they shall have at least equivalent strength of U-bolts made of mild steel. Cast iron shall not be used for clamps or any other holding devices.

(2) *Shifting.* Adequate provision shall be made by design and installation to provide against relative movement between the lower-half and the towing vehicle especially during periods of rapid acceleration and deceleration. To insure against shifting, designs of the tripod type shall be equipped with adequate and securely fastened hold-back chains or similar devices.

(3) *Swaying.* (i) Adequate provision shall be made by design and installation to provide against swaying or lateral movement of the towed vehicle relative to the towing vehicle. To insure against swaying, lower-halves designed with cross-members attached to but separable from vertical members shall have such cross-members fastened to the vertical members by at least two bolts on each side. Such bolts shall be of at least equivalent cross-sectional area as those required for U-bolts for the corresponding saddle-mount as given in the table in paragraph (k)(1) of this section. The minimum distance between the most widely separated points of support of the cross-member by the vertical member shall be three inches as measured in a direction parallel to the longitudinal axis of the towing vehicle.

(ii) The lower-half shall have a bearing surface on the frame of the towing vehicle of such dimensions that the pressure exerted by the lower-half upon the frame of the towing vehicle

shall not exceed 200 pounds per square inch under any conditions of static loading. Hardwood blocks or blocks of other suitable material, such as hard rubber, aluminum or brakelining, if used between the lower half and the frame of the towing vehicle shall be at least 1/2 inch thick, 3 inches wide, and a combined length of 6 inches.

(iii) Under no condition shall the highest point of support of the towed vehicle by the upper-half be more than 24 inches, measured vertically, above the top of the frame of the towing vehicle, measured at the point where the lower-half rests on the towing vehicle.

(4) *Wood blocks.* (i) Hardwood blocks of good quality may be used to build up the height of the front end of the towed vehicle, provided that the total height of such wood blocks shall not exceed 8 inches and not over two separate pieces are placed upon each other to obtain such height; however, hardwood blocks, not over 4 in number, to a total height not to exceed 14 inches, may be used if the total cross-sectional area of the U-bolts used to attach the lower-half of the towing vehicle is at least 50 percent greater than that required by the table contained in paragraph (k)(1) of this section, or, if other devices are used in lieu of U-bolts, they shall provide for as great a resistance to bending as is provided by the larger U-bolts above prescribed.

(ii) Hardwood blocks must be at least 4 inches in width and the surfaces between blocks or block and lower-half or block and upper-half shall be planed and so installed and maintained as to minimize any tendency of the towed vehicle to sway or rock.

(5) *Cross-member, general requirements.* The cross-member, which is that part of the lower-half used to distribute the weight of the towed vehicle equally to each member of the frame of the towing vehicle, if used, shall be structurally adequate and properly installed and maintained adequately to perform this function.

(6) *Cross-member, use of wood.* No materials, other than suitable metals, shall be used as the cross-member, and wood may not be used structurally in any manner that will result in its being subject to tensile stresses. Wood may be used in cross-members if supported throughout its length by suitable metal cross-members.

(7) *Lower half strength.* The lower half shall be capable of supporting the loads given in the following table. For the purpose of test, the saddle-mount shall be mounted as normally operated and the load applied through the upper half:

Minimum Test Load in Pounds				
Weight in pounds of heaviest towed vehicle	Double or triple saddle-mount			
	Front mount	Middle or front mount	Rear mount	Single saddle-mount
Up to 5,000.....	15,000	10,000	5,000	5,000
5,000 and over.....	30,000	20,000	10,000	10,000

-----  
 \1\ The total weight of all the vehicles being towed shall govern.

(l) *Requirements for kingpins of saddle-mounts.* The kingpin of any saddle-mount shall comply with the following requirements:

(1) *Kingpin size.* (i) Kingpins shall be constructed of steel suitable for the purpose, free of defects, and having a diameter not less than required by the following table:

				Diameter of Solid Kingpin in		
Inches						
-----				-----		
triple saddle-mount				Double or		
-----				-----		
front	Rear mount	Single	Front mount	Middle or		
Weight in pounds of heaviest towed vehicle	of heaviest towed vehicle	saddle-mount \1\	saddle-	mount		
-----	-----	-----	-----	-----		
Mild	H.T.S.\2\	Mild	Mild	H.T.S.\2\	Mild	
2\	steel	steel	steel	H.T.S.	steel	
-----	-----	-----	-----	-----	-----	
Up to 5,000.....			1.125	1.000	1.000	
0.875	0.875	0.750	0.875	0.750		
5,000 and over.....			1.500	1.125	1.250	
1.000	1.000	0.875	1.000	0.875		
-----	-----	-----	-----	-----	-----	

-----  
 \1\ The total weight of all the vehicles being towed shall govern.  
 \2\ High-tensile steel is steel having a minimum ultimate strength of 65,000 pounds per square inch.

(ii) If a ball and socket joint is used in place of a kingpin, the diameter of the neck of the ball shall be at least equal to the diameter of the corresponding solid kingpin given in the above table. If hollow kingpins are used, the metallic cross-sectional area shall be at least equal to the cross-sectional area of the corresponding solid kingpin.

(2) *Kingpin fit.* If a kingpin bushing is not used, the king-pin shall fit snugly into the upper and lower-halves but shall not bind. Those portions of the upper or lower-halves in moving contact with the kingpin shall be smoothly machined with no rough or sharp edges. The bearing surface thus provided shall not be less in depth than the radius of the kingpin.

(3) *Kingpin bushing on saddle-mounts.* The kingpin of all new saddle-mounts acquired and used shall be snugly enclosed in a bushing at least along such length of the kingpin as may

be in moving contact with either the upper or lower-halves. The bearing surface thus provided shall not be less in depth than the radius of the kingpin.

(4) *Kingpin to restrain vertical motion.* The kingpin shall be so designed and installed as to restrain the upper-half from moving in a vertical direction relative to the lower-half.

(m) *Additional requirements for saddle-mounts.* Saddle-mounts shall comply with the following requirements:

(1) *Bearing surface between upper and lower-halves.* The upper and lower-halves shall be so constructed and connected that the bearing surface between the two halves shall not be less than 16 square inches under any conditions of angularity between the towing and towed vehicles: *Provided, however,* That saddle-mounts using a ball and socket joint shall have a ball of such dimension that the static bearing load shall not exceed 800 pounds per square inch, based on the projected cross-sectional area of the ball: *And further provided,* That saddle-mounts having the upper-half supported by ball, taper, or roller-bearings shall not have such bearings loaded beyond the limits prescribed for such bearings by the manufacturer thereof. The upper-half shall rest evenly and smoothly upon the lower-half and the contact surfaces shall be lubricated and maintained so that there shall be a minimum of frictional resistance between the parts.

(2) *Saddle-mounts, angularity.* All saddle-mounts acquired and used shall provide for angularity between the towing and towed vehicles due to vertical curvatures of the highway. Such means shall not depend upon either the looseness or deformation of the parts of either the saddle-mount or the vehicles to provide for such angularity.

(3) *Tracking.* The saddle-mount shall be so designed, constructed, maintained, and installed that the towed vehicle or vehicles will follow substantially in the path of the towing vehicle without swerving. Towed vehicles shall not deviate more than 3 inches to either side of the path of the towing vehicle when moving in a straight line.

(4) *Prevention of frame bending.* Where necessary, provision shall be made to prevent the bending of the frame of the towing vehicle by insertion of suitable blocks inside the frame channel to prevent kinking. The saddle-mount shall not be so located as to cause deformation of the frame by reason of cantilever action.

(5) *Extension of frame.* No saddle-mount shall be located at a point to the rear of the frame of a towing vehicle.

(6) *Nuts, secured.* All nuts used on bolts, U-bolts, king-pins, or in any other part of the saddle-mount shall be secured against accidental disconnection by means of cotter-keys, lock-washers, double nuts, safety nuts, or equivalent means. Parts shall be so designed and installed that nuts shall be fully engaged.

(7) *Inspection of all parts.* The saddle-mount shall be so designed that it may be



disassembled and each separate part inspected for worn, bent, cracked, broken, or missing parts.

(8) *Saddle-mounts, marking.* Every new saddle-mount acquired and used in driveaway-towaway operations by a motor carrier shall have the upper-half and the lower-half separately marked with the following certification of the manufacturer thereof (or words of equivalent meaning).

This saddle-mount complies with the requirements of the Federal Motor Carrier Safety Administration for vehicles up to 5,000 pounds (or over 5,000 pounds):

Manufactured \_\_\_\_\_  
(Month and year) by \_\_\_\_\_  
(Name of manufacturer)

(n) *Requirements for devices used to connect motor vehicles or parts of motor vehicles together to form one vehicle—*(1) *Front axle attachment.* The front axle of one motor vehicle intended to be coupled with another vehicle as defined in paragraph (g)(2)(ii) of this section shall be attached with U-bolts meeting the requirements of paragraph (j)(2) of this section.

(2) *Rear axle attachment.* The rear axle of one vehicle shall be coupled to the frame of the other vehicle by means of a connecting device which when in place forms a rectangle. The device shall be composed of two pieces, top and bottom. The device shall be made of 4-inch by 1/2-inch steel bar bent to shape and shall have the corners reinforced with a plate at least 3 inches by 1/2 inch by 8 inches long. The device shall be bolted together with 3/4-inch bolts and at least three shall be used on each side. Wood may be used as spacers to keep the frames apart and it shall be at least 4 inches square.

(Sec. 12, 80 Stat. 931; 49 U.S.C. 1651 note; section 6 of the Department of Transportation Act, 49 U.S.C. 1655, and the delegations of authority at 49 CFR 1.48 and 389.4)

[33 FR 19735, Dec. 25, 1968, as amended at 35 FR 10907, July 7, 1970; 37 FR 21440, Oct. 11, 1972; 53 FR 49400, Dec. 7, 1988; 70 FR 48054, Aug. 15, 2005]

#### **Subpart G—Miscellaneous Parts and Accessories**

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#### **§ 393.75 Tires.**

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(a) No motor vehicle shall be operated on any tire that (1) has body ply or belt material exposed through the tread or sidewall, (2) has any tread or sidewall separation, (3) is flat or has an audible leak, or (4) has a cut to the extent that the ply or belt material is exposed.

(b) Any tire on the front wheels of a bus, truck, or truck tractor shall have a tread groove pattern depth of at least  $\frac{4}{32}$  of an inch when measured at any point on a major tread groove. The measurements shall not be made where tie bars, humps, or fillets are located.

(c) Except as provided in paragraph (b) of this section, tires shall have a tread groove pattern depth of at least  $\frac{2}{32}$  of an inch when measured in a major tread groove. The measurement shall not be made where tie bars, humps or fillets are located.

(d) No bus shall be operated with regrooved, recapped or retreaded tires on the front wheels.

(e) A regrooved tire with a load-carrying capacity equal to or greater than 2,232 kg (4,920 pounds) shall not be used on the front wheels of any truck or truck tractor.

(f) *Tire loading restrictions (except on manufactured homes).* No motor vehicle (except manufactured homes, which are governed by paragraph (g) of this section) shall be operated with tires that carry a weight greater than that marked on the sidewall of the tire or, in the absence of such a marking, a weight greater than that specified for the tires in any of the publications of any of the organizations listed in Federal Motor Vehicle Safety Standard No. 119 (49 CFR 571.119, S5.1(b)) unless:

(1) The vehicle is being operated under the terms of a special permit issued by the State; and

(2) The vehicle is being operated at a reduced speed to compensate for the tire loading in excess of the manufacturer's rated capacity for the tire. In no case shall the speed exceed 80 km/hr (50 mph).

(g)(1) *Tire loading restrictions for manufactured homes built before January 1, 2002.* Manufactured homes that are labeled pursuant to 24 CFR 3282.362(c)(2)(i) before January 1, 2002, must not be transported on tires that are loaded more than 18 percent over the load rating marked on the sidewall of the tire or, in the absence of such a marking, more than 18 percent over the load rating specified in any of the publications of any of the organizations listed in FMVSS No. 119 (49 CFR 571.119, S5.1(b)). Manufactured homes labeled before January 1, 2002, transported on tires overloaded by 9 percent or more must not be operated at speeds exceeding 80 km/hr (50 mph).

(2) *Tire loading restrictions for manufactured homes built on or after January 1, 2002.* Manufactured homes that are labeled pursuant to 24 CFR 3282.362(c)(2)(i) on or after January 1, 2002, must not be transported on tires loaded beyond the load rating marked on the sidewall of the tire or, in the absence of such a marking, the load rating specified in any of the publications of any of the organizations listed in FMVSS No. 119 (49 CFR 571.119, S5.1(b)).

(h) *Tire inflation pressure.* (1) No motor vehicle shall be operated on a tire which has a cold

inflation pressure less than that specified for the load being carried.

(2) If the inflation pressure of the tire has been increased by heat because of the recent operation of the vehicle, the cold inflation pressure shall be estimated by subtracting the inflation buildup factor shown in Table 1 from the measured inflation pressure.

Table 1\_Inflation Pressure Measurement Correction for Heat

Average speed of vehicle in the previous hour	Minimum inflation pressure buildup	
	Tires with 1,814 kg (4,000 lbs.) maximum load rating or less	Tires with over 1,814 kg (4,000 lbs.) load rating
66-88.5 km/hr (41-55 mph).....	34.5 kPa (5 psi)..	103.4 kPa (15 psi).

[34 FR 9344, June 13, 1969, as amended at 40 FR 44557, Sept. 29, 1975; 41 FR 36657, Aug. 31, 1976; 44 FR 25455, May 1, 1979; 44 FR 47938, Aug. 16, 1979; 53 FR 18057, May 19, 1988; 53 FR 49401, Dec. 7, 1988; 63 FR 8339, Feb. 18, 1998; 65 FR 70220, Nov. 21, 2000; 66 FR 67694, Dec. 31, 2001; 70 FR 48054, Aug. 15, 2005]

§ 393.76 Sleeper berths.

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(a) *Dimensions*—(1) *Size*. A sleeper berth must be at least the following size:

Date of installation on motor vehicle	Length measured on centerline of longitudinal axis (inches)	Width measured on centerline of transverse axis (inches)	Height measured from highest point of top of mattress (inches) \1\
Before January 1, 1953.....	72	18	18
After December 31, 1952, and before October 1, 1975.....	75	21	21
After September 30, 1975.....	75	24	24

\1\ In the case of a sleeper berth which utilizes an adjustable mechanical suspension system, the required clearance can be measured when the suspension system is adjusted to the height to which it would settle when occupied by a driver.

(2) *Shape.* A sleeper berth installed on a motor vehicle on or after January 1, 1953 must be of generally rectangular shape, except that the horizontal corners and the roof corners may be rounded to radii not exceeding 10 1/2 inches.

(3) *Access.* A sleeper berth must be constructed so that an occupant's ready entrance to, and exit from, the sleeper berth is not unduly hindered.

(b) *Location.* (1) A sleeper berth must not be installed in or on a semitrailer or a full trailer other than a house trailer.

(2) A sleeper berth located within the cargo space of a motor vehicle must be securely compartmentalized from the remainder of the cargo space. A sleeper berth installed on or after January 1, 1953 must be located in the cab or immediately adjacent to the cab and must be securely fixed with relation to the cab.

(c) *Exit from the berth.* (1) Except as provided in paragraph (c)(2) of this section, there must be a direct and ready means of exit from a sleeper berth into the driver's seat or compartment. If the sleeper berth was installed on or after January 1, 1963, the exit must be a doorway or opening at least 18 inches high and 36 inches wide. If the sleeper berth was installed before January 1, 1963, the exit must have sufficient area to contain an ellipse having a major axis of 24 inches and a minor axis of 16 inches.

(2) A sleeper berth installed before January 1, 1953 must either:

(i) Conform to the requirements of paragraph (c)(1) of this section; or

(ii) Have at least two exits, each of which is at least 18 inches high and 21 inches wide, located at opposite ends of the vehicle and useable by the occupant without the assistance of any other person.

(d) *Communication with the driver.* A sleeper berth which is not located within the driver's compartment and has no direct entrance into the driver's compartment must be equipped with a means of communication between the occupant and the driver. The means of communication may consist of a telephone, speaker tube, buzzer, pull cord, or other mechanical or electrical device.

(e) *Equipment.* A sleeper berth must be properly equipped for sleeping. Its equipment must include:

(1) Adequate bedclothing and blankets; and

(2) Either:

(i) Springs and a mattress; or

(ii) An innerspring mattress; or

(iii) A cellular rubber or flexible foam mattress at least four inches thick; or

(iv) A mattress filled with a fluid and of sufficient thickness when filled to prevent “bottoming-out” when occupied while the vehicle is in motion.

(f) *Ventilation.* A sleeper berth must have louvers or other means of providing adequate ventilation. A sleeper berth must be reasonably tight against dust and rain.

(g) *Protection against exhaust and fuel leaks and exhaust heat.* A sleeper berth must be located so that leaks in the vehicle's exhaust system or fuel system do not permit fuel, fuel system gases, or exhaust gases to enter the sleeper berth. A sleeper berth must be located so that it will not be overheated or damaged by reason of its proximity to the vehicle's exhaust system.

(h) *Occupant restraint.* A motor vehicle manufactured on or after July 1, 1971, and equipped with a sleeper berth must be equipped with a means of preventing ejection of the occupant of the sleeper berth during deceleration of the vehicle. The restraint system must be designed, installed, and maintained to withstand a minimum total force of 6,000 pounds applied toward the front of the vehicle and parallel to the longitudinal axis of the vehicle.

[39 FR 14711, Apr. 26, 1974; 39 FR 17233, May 14, 1974, as amended at 53 FR 49401, Dec. 7, 1988]

**§ 393.77 Heaters.**

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On every motor vehicle, every heater shall comply with the following requirements:

(a) *Prohibited types of heaters.* The installation or use of the following types of heaters is prohibited:

(1) *Exhaust heaters.* Any type of exhaust heater in which the engine exhaust gases are conducted into or through any space occupied by persons or any heater which conducts engine compartment air into any such space.

(2) *Unenclosed flame heaters.* Any type of heater employing a flame which is not fully enclosed, except that such heaters are not prohibited when used for heating the cargo of tank motor vehicles.

(3) *Heaters permitting fuel leakage.* Any type of heater from the burner of which there could be spillage or leakage of fuel upon the tilting or overturning of the vehicle in which it

is mounted.

(4) *Heaters permitting air contamination.* Any heater taking air, heated or to be heated, from the engine compartment or from direct contact with any portion of the exhaust system; or any heater taking air in ducts from the outside atmosphere to be conveyed through the engine compartment, unless said ducts are so constructed and installed as to prevent contamination of the air so conveyed by exhaust or engine compartment gases.

(5) *Solid fuel heaters except wood charcoal.* Any stove or other heater employing solid fuel except wood charcoal.

(6) *Portable heaters.* Portable heaters shall not be used in any space occupied by persons except the cargo space of motor vehicles which are being loaded or unloaded.

(b) *Heater specifications.* All heaters shall comply with the following specifications:

(1) *Heating elements, protection.* Every heater shall be so located or protected as to prevent contact therewith by occupants, unless the surface temperature of the protecting grilles or of any exposed portions of the heaters, inclusive of exhaust stacks, pipes, or conduits shall be lower than would cause contact burns. Adequate protection shall be afforded against igniting parts of the vehicle or burning occupants by direct radiation. Wood charcoal heaters shall be enclosed within a metal barrel, drum, or similar protective enclosure which enclosure shall be provided with a securely fastened cover.

(2) *Moving parts, guards.* Effective guards shall be provided for the protection of passengers or occupants against injury by fans, belts, or any other moving parts.

(3) *Heaters, secured.* Every heater and every heater enclosure shall be securely fastened to the vehicle in a substantial manner so as to provide against relative motion within the vehicle during normal usage or in the event the vehicle overturns. Every heater shall be so designed, constructed, and mounted as to minimize the likelihood of disassembly of any of its parts, including exhaust stacks, pipes, or conduits, upon overturn of the vehicle in or on which it is mounted. Wood charcoal heaters shall be secured against relative motion within the enclosure required by paragraph (c)(1) of this section, and the enclosure shall be securely fastened to the motor vehicle.

(4) *Relative motion between fuel tank and heater.* When either in normal operation or in the event of overturn, there is or is likely to be relative motion between the fuel tank for a heater and the heater, or between either of such units and the fuel lines between them, a suitable means shall be provided at the point of greatest relative motion so as to allow this motion without causing failure of the fuel lines.

(5) *Operating controls to be protected.* On every bus designed to transport more than 15 passengers, including the driver, means shall be provided to prevent unauthorized persons from tampering with the operating controls. Such means may include remote control by the

driver; installation of controls at inaccessible places; control of adjustments by key or keys; enclosure of controls in a locked space, locking of controls, or other means of accomplishing this purpose.

(6) *Heater hoses.* Hoses for all hot water and steam heater systems shall be specifically designed and constructed for that purpose.

(7) *Electrical apparatus.* Every heater employing any electrical apparatus shall be equipped with electrical conductors, switches, connectors, and other electrical parts of ample current-carrying capacity to provide against overheating; any electric motor employed in any heater shall be of adequate size and so located that it will not be overheated; electrical circuits shall be provided with fuses and/or circuit breakers to provide against electrical overloading; and all electrical conductors employed in or leading to any heater shall be secured against dangling, chafing, and rubbing and shall have suitable protection against any other condition likely to produce short or open circuits.

Note: Electrical parts certified as proper for use by Underwriters' Laboratories, Inc., shall be deemed to comply with the foregoing requirements.

(8) *Storage battery caps.* If a separate storage battery is located within the personnel or cargo space, such battery shall be securely mounted and equipped with nonspill filler caps.

(9) *Combustion heater exhaust construction.* Every heater employing the combustion of oil, gas, liquefied petroleum gas, or any other combustible material shall be provided with substantial means of conducting the products of combustion to the outside of the vehicle: *Provided, however,* That this requirement shall not apply to heaters used solely to heat the cargo space of motor vehicles where such motor vehicles or heaters are equipped with means specifically designed and maintained so that the carbon monoxide concentration will never exceed 0.2 percent in the cargo space. The exhaust pipe, stack, or conduit if required shall be sufficiently substantial and so secured as to provide reasonable assurance against leakage or discharge of products of combustion within the vehicle and, if necessary, shall be so insulated as to make unlikely the burning or charring of parts of the vehicle by radiation or by direct contact. The place of discharge of the products of combustion to the atmosphere and the means of discharge of such products shall be such as to minimize the likelihood of their reentry into the vehicle under all operating conditions.

(10) *Combustion chamber construction.* The design and construction of any combustion-type heater except cargo space heaters permitted by the proviso of paragraph (c)(9) of this section and unenclosed flame heaters used for heating cargo of tank motor vehicles shall be such as to provide against the leakage of products of combustion into air to be heated and circulated. The material employed in combustion chambers shall be such as to provide against leakage because of corrosion, oxidation, or other deterioration. Joints between combustion chambers and the air chambers with which they are in thermal and mechanical contact shall be so designed and constructed as to prevent leakage between the chambers and the materials employed in such joints shall have melting points substantially higher

than the maximum temperatures likely to be attained at the points of jointure.

(11) *Heater fuel tank location.* Every bus designed to transport more than 15 passengers, including the driver, with heaters of the combustion type shall have fuel tanks therefor located outside of and lower than the passenger space. When necessary, suitable protection shall be afforded by shielding or other means against the puncturing of any such tank or its connections by flying stones or other objects.

(12) *Heater, automatic fuel control.* Gravity or siphon feed shall not be permitted for heaters using liquid fuels. Heaters using liquid fuels shall be equipped with automatic means for shutting off the fuel or for reducing such flow of fuel to the smallest practicable magnitude, in the event of overturn of the vehicle. Heaters using liquefied petroleum gas as fuel shall have the fuel line equipped with automatic means at the source of supply for shutting off the fuel in the event of separation, breakage, or disconnection of any of the fuel lines between the supply source and the heater.

(13) *“Tell-tale” indicators.* Heaters subject to paragraph (c)(14) of this section and not provided with automatic controls shall be provided with “tell-tale” means to indicate to the driver that the heater is properly functioning. This requirement shall not apply to heaters used solely for the cargo space in semitrailers or full trailers.

(14) *Shut-off control.* Automatic means, or manual means if the control is readily accessible to the driver without moving from the driver's seat, shall be provided to shut off the fuel and electrical supply in case of failure of the heater to function for any reason, or in case the heater should function improperly or overheat. This requirement shall not apply to wood charcoal heaters or to heaters used solely to heat the contents of cargo tank motor vehicles, but wood charcoal heaters must be provided with a controlled method of regulating the flow of combustion air.

(15) *Certification required.* Every combustion-type heater, except wood charcoal heaters, the date of manufacture of which is subsequent to December 31, 1952, and every wood charcoal heater, the date of manufacture of which is subsequent to September 1, 1953, shall be marked plainly to indicate the type of service for which such heater is designed and with a certification by the manufacturer that the heater meets the applicable requirements for such use. For example, “Meets I.C.C. Bus Heater Requirements,” “Meets I.C.C. Flue-Vented Cargo Space Heater Requirements,” and after December 31, 1967, such certification shall read “Meets FMCSA Bus Heater Requirements,” “Meets FMCSA Flue-Vented Cargo Space Heater Requirements,” etc.

(i) *Exception.* The certification for a catalytic heater which is used in transporting flammable liquid or gas shall be as prescribed under §177.834(1) of this title.

[33 FR 19735, Dec. 25, 1968, as amended at 40 FR 51198, Nov. 4, 1975; 53 FR 49401, Dec. 7, 1988]



**§ 393.78 Windshield wiping and washing systems.**

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(a) *Vehicles manufactured on or after December 25, 1968.* Each bus, truck, and truck-tractor manufactured on or after December 25, 1968, must have a windshield wiping system that meets the requirements of FMVSS No. 104 (S4.1) in effect on the date of manufacture. Each of these vehicles must have a windshield washing system that meets the requirements of FMVSS No. 104 (S4.2.2) in effect on the date of manufacture.

(b) *Vehicles manufactured between June 30, 1953, and December 24, 1968.* Each truck, truck-tractor, and bus manufactured between June 30, 1953, and December 24, 1968, shall be equipped with a power-driven windshield wiping system with at least two wiper blades, one on each side of the centerline of the windshield. Motor vehicles which depend upon vacuum to operate the windshield wipers, shall have the wiper system constructed and maintained such that the performance of the wipers will not be adversely affected by a change in the intake manifold pressure.

(c) *Driveaway-towaway operations.* Windshield wiping and washing systems need not be in working condition while a commercial motor vehicle is being towed in a driveaway-towaway operation.

[70 FR 48054, Aug. 15, 2005]

**§ 393.79 Windshield defrosting and defogging systems.**

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(a) *Vehicles manufactured on or after December 25, 1968.* Each bus, truck, and truck-tractor manufactured on or after December 25, 1968, must have a windshield defrosting and defogging system that meets the requirements of FMVSS No. 103 in effect on the date of manufacture.

(b) *Vehicles manufactured before December 25, 1968.* Each bus, truck, and truck-tractor shall be equipped with a means for preventing the accumulation of ice, snow, frost, or condensation that could obstruct the driver's view through the windshield while the vehicle is being driven.

[70 FR 48054, Aug. 15, 2005]

**§ 393.80 Rear-vision mirrors.**

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(a) Every bus, truck, and truck tractor shall be equipped with two rear-vision mirrors, one at

each side, firmly attached to the outside of the motor vehicle, and so located as to reflect to the driver a view of the highway to the rear, along both sides of the vehicle. All such regulated rear-vision mirrors and their replacements shall meet, as a minimum, the requirements of FMVSS No. 111 (49 CFR 571.111) in force at the time the vehicle was manufactured.

(b) *Exceptions.* (1) Mirrors installed on a vehicle manufactured prior to January 1, 1981, may be continued in service, provided that if the mirrors are replaced they shall be replaced with mirrors meeting, as a minimum, the requirements of FMVSS No. 111 (49 CFR 571.111) in force at the time the vehicle was manufactured.

(2) Only one outside mirror shall be required, which shall be on the driver's side, on trucks which are so constructed that the driver has a view to the rear by means of an interior mirror.

(3) In driveway-towaway operations, the driven vehicle shall have at least one mirror furnishing a clear view to the rear.

[48 FR 57139, Dec. 28, 1983]

**§ 393.81 Horn.**

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Every bus, truck, truck-tractor, and every driven motor vehicle in driveway-towaway operations shall be equipped with a horn and actuating elements which shall be in such condition as to give an adequate and reliable warning signal.

**§ 393.82 Speedometer.**

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Each bus, truck, and truck-tractor must be equipped with a speedometer indicating vehicle speed in miles per hour and/or kilometers per hour. The speedometer must be accurate to within plus or minus 8 km/hr (5 mph) at a speed of 80 km/hr (50 mph).

[70 FR 48054, Aug. 15, 2005]

**§ 393.83 Exhaust systems.**

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(a) Every motor vehicle having a device (other than as part of its cargo) capable of expelling harmful combustion fumes shall have a system to direct the discharge of such fumes. No part shall be located where its location would likely result in burning, charring,

or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

(b) No exhaust system shall discharge to the atmosphere at a location immediately below the fuel tank or the fuel tank filler pipe.

(c) The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus.

(d) The exhaust system of a bus using fuels other than gasoline shall discharge to the atmosphere either:

(1) At or within 15 inches forward of the rearmost part of the vehicle; or

(2) To the rear of all doors or windows designed to be open, except windows designed to be opened solely as emergency exits.

(e) The exhaust system of every truck and truck tractor shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab.

(f) No part of the exhaust system shall be temporarily repaired with wrap or patches.

(g) No part of the exhaust system shall leak or discharge at a point forward of or directly below the driver/sleeper compartment. The exhaust outlet may discharge above the cab/sleeper roofline.

(h) The exhaust system must be securely fastened to the vehicle.

(i) Exhaust systems may use hangers which permit required movement due to expansion and contraction caused by heat of the exhaust and relative motion between engine and chassis of a vehicle.

[53 FR 49401, Dec. 7, 1988]

**§ 393.84 Floors.**

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The flooring in all motor vehicles shall be substantially constructed, free of unnecessary holes and openings, and shall be maintained so as to minimize the entrance of fumes, exhaust gases, or fire. Floors shall not be permeated with oil or other substances likely to cause injury to persons using the floor as a traction surface.

[53 FR 49401, Dec. 7, 1988]

§ 393.85 [Reserved]

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§ 393.86 **Rear impact guards and rear end protection.**

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(a)(1) *General requirements for trailers and semitrailers manufactured on or after January 26, 1998.* Each trailer and semitrailer with a gross vehicle weight rating of 4,536 kg (10,000 pounds) or more, and manufactured on or after January 26, 1998, must be equipped with a rear impact guard that meets the requirements of Federal Motor Vehicle Safety Standard No. 223 (49 CFR 571.223) in effect at the time the vehicle was manufactured. When the rear impact guard is installed on the trailer or semitrailer, the vehicle must, at a minimum, meet the requirements of FMVSS No. 224 (49 CFR 571.224) in effect at the time the vehicle was manufactured. The requirements of paragraph (a) of this section do not apply to pole trailers (as defined in §390.5 of this chapter); pulpwood trailers, low chassis vehicles, special purpose vehicles, wheels back vehicles (as defined in §393.5); and trailers towed in driveaway-towaway operations (as defined in §390.5).

(2) *Impact guard width.* The outermost surfaces of the horizontal member of the guard must extend to within 100 mm (4 inches) of the side extremities of the vehicle. The outermost surface of the horizontal member shall not extend beyond the side extremity of the vehicle.

(3) *Guard height.* The vertical distance between the bottom edge of the horizontal member of the guard and the ground shall not exceed 560 mm (22 inches) at any point across the full width of the member. Guards with rounded corners may curve upward within 255 mm (10 inches) of the longitudinal vertical planes that are tangent to the side extremities of the vehicle.

(4) *Guard rear surface.* At any height 560 mm (22 inches) or more above the ground, the rearmost surface of the horizontal member of the guard must be within 305 mm (12 inches) of the rear extremity of the vehicle. This paragraph shall not be construed to prohibit the rear surface of the guard from extending beyond the rear extremity of the vehicle. Guards with rounded corners may curve forward within 255 mm (10 inches) of the side extremity.

(5) *Cross-sectional vertical height.* The horizontal member of each guard must have a cross sectional vertical height of at least 100 mm (3.94 inches) at any point across the guard width.

(6) *Certification and labeling requirements for rear impact protection guards.* Each rear impact guard used to satisfy the requirements of paragraph (a)(1) of this section must be permanently marked or labeled as required by FMVSS No. 223 (49 CFR 571.223, S5.3).

The label must be on the forward-facing surface of the horizontal member of the guard, 305 mm (12 inches) inboard of the right end of the guard. The certification label must contain the following information:

- (i) The impact guard manufacturer's name and address;
- (ii) The statement "Manufactured in \_\_\_" (inserting the month and year that the guard was manufactured); and,
- (iii) The letters "DOT", constituting a certification by the guard manufacturer that the guard conforms to all requirements of FMVSS No. 223.

(b)(1) *Requirements for motor vehicles manufactured after December 31, 1952 (except trailers or semitrailers manufactured on or after January 26, 1998).* Each motor vehicle manufactured after December 31, 1952, (except truck tractors, pole trailers, pulpwood trailers, or vehicles in driveaway-towaway operations) in which the vertical distance between the rear bottom edge of the body (or the chassis assembly if the chassis is the rearmost part of the vehicle) and the ground is greater than 76.2 cm (30 inches) when the motor vehicle is empty, shall be equipped with a rear impact guard(s). The rear impact guard(s) must be installed and maintained in such a manner that:

- (i) The vertical distance between the bottom of the guard(s) and the ground does not exceed 76.2 cm (30 inches) when the motor vehicle is empty;
- (ii) The maximum lateral distance between the closest points between guards, if more than one is used, does not exceed 61 cm (24 inches);
- (iii) The outermost surfaces of the horizontal member of the guard are no more than 45.7 cm (18 inches) from each side extremity of the motor vehicle;
- (iv) The impact guard(s) are no more than 61 cm (24 inches) forward of the rear extremity of the motor vehicle.

(2) *Construction and attachment.* The rear impact guard(s) must be substantially constructed and attached by means of bolts, welding, or other comparable means.

(3) *Vehicle components and structures that may be used to satisfy the requirements of paragraph (b) of this section.* Low chassis vehicles, special purpose vehicles, or wheels back vehicles constructed and maintained so that the body, chassis, or other parts of the vehicle provide the rear end protection comparable to impact guard(s) conforming to the requirements of paragraph (b)(1) of this section shall be considered to be in compliance with those requirements.

[64 FR 47708, Sept. 1, 1999, as amended at 67 FR 61824, Oct. 2, 2002]

**§ 393.87 Warning flags on projecting loads.**

[↑ top](#)

(a) Any commercial motor vehicle transporting a load which extends beyond the sides by more than 102 mm (4 inches) or more than 1,219 mm (4 feet) beyond the rear must have the extremities of the load marked with red or orange fluorescent warning flags. Each warning flag must be at least 457 mm (18 inches) square.

(b) *Position of flags.* There must be a single flag at the extreme rear if the projecting load is two feet wide or less. Two warning flags are required if the projecting load is wider than two feet. Flags must be located to indicate maximum width of loads which extend beyond the sides and/or rear of the vehicle.

[70 FR 48054, Aug. 15, 2005]

**§ 393.88 Television receivers.**

[↑ top](#)

Any motor vehicle equipped with a television viewer, screen or other means of visually receiving a television broadcast shall have the viewer or screen located in the motor vehicle at a point to the rear of the back of the driver's seat if such viewer or screen is in the same compartment as the driver and the viewer or screen shall be so located as not to be visible to the driver, while he/she is driving the motor vehicle. The operating controls for the television receiver shall be so located that the driver cannot operate them without leaving the driver's seat.

**§ 393.89 Buses, driveshaft protection.**

[↑ top](#)

Any driveshaft extending lengthways under the floor of the passenger compartment of a bus shall be protected by means of at least one guard or bracket at that end of the shaft which is provided with a sliding connection (spline or other such device) to prevent the whipping of the shaft in the event of failure thereof or of any of its component parts. A shaft contained within a torque tube shall not require any such device.

[33 FR 19735, Dec. 25, 1968, as amended at 53 FR 49402, Dec. 7, 1988]

**§ 393.90 Buses, standee line or bar.**

[↑ top](#)

Except as provided below, every bus, which is designed and constructed so as to allow

standees, shall be plainly marked with a line of contrasting color at least 2 inches wide or equipped with some other means so as to indicate to any person that he/she is prohibited from occupying a space forward of a perpendicular plane drawn through the rear of the driver's seat and perpendicular to the longitudinal axis of the bus. Every bus shall have clearly posted at or near the front, a sign with letters at least one-half inch high stating that it is a violation of the Federal Motor Carrier Safety Administration's regulations for a bus to be operated with persons occupying the prohibited area. The requirements of this section shall not apply to any bus being transported in driveaway-towaway operation or to any level of the bus other than the level in which the driver is located nor shall they be construed to prohibit any seated person from occupying permanent seats located in the prohibited area provided such seats are so located that persons sitting therein will not interfere with the driver's safe operation of the bus.

**§ 393.91 Buses, aisle seats prohibited.**

[↑ top](#)

No bus shall be equipped with aisle seats unless such seats are so designed and installed as to automatically fold and leave a clear aisle when they are unoccupied. No bus shall be operated if any seat therein is not securely fastened to the vehicle.

[53 FR 49402, Dec. 7, 1988]

**§ 393.92 [Reserved]**

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**§ 393.93 Seats, seat belt assemblies, and seat belt assembly anchorages.**

[↑ top](#)

(a) *Buses*—(1) *Buses manufactured on or after January 1, 1965, and before July 1, 1971.* After June 30, 1972, every bus manufactured on or after January 1, 1965, and before July 1, 1971, must be equipped with a Type 1 or Type 2 seat belt assembly that conforms to Federal Motor Vehicle Safety Standard No. 209<sup>1</sup> (§571.209) installed at the driver's seat and seat belt assembly anchorages that conform to the location and geometric requirements of Federal Motor Vehicle Safety Standard No. 210<sup>1</sup> (§571.210) for that seat belt assembly.

<sup>1</sup> Individual copies of Federal Motor Vehicle Safety Standards may be obtained from the National Highway Traffic Safety Administration, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590.

(2) *Buses manufactured on or after July 1, 1971.* Every bus manufactured on or after July 1, 1971, must conform to the requirements of Federal Motor Vehicle Safety Standard No. 208<sup>1</sup> (§571.208) (relating to installation of seat belt assemblies) and Federal Motor Vehicle Safety Standard No. 210<sup>1</sup> (§571.210) (relating to installation of seat belt assembly

anchorages).

(3) *Buses manufactured on or after January 1, 1972.* Every bus manufactured on or after January 1, 1972, must conform to the requirements of Federal Motor Vehicle Safety Standard No. 207<sup>1</sup> (§571.207) (relating to seating systems).

(b) *Trucks and truck tractors—(1) Trucks and truck tractors manufactured on and after January 1, 1965, and before July 1, 1971.* Except as provided in paragraph (d) of this section, after June 30, 1972, every truck and truck tractor manufactured on or after January 1, 1965, and before July 1, 1971, must be equipped with a Type 1 or Type 2 seat belt assembly that conforms to Federal Motor Vehicle Safety Standard No. 209 (§571.209) installed at the driver's seat and at the right front outboard seat, if the vehicle has one, and seat belt assembly anchorages that conform to the location and geometric requirements of Federal Motor Vehicle Safety Standard No. 210 (§571.210) for each seat belt assembly that is required by this subparagraph.

(2) *Trucks and truck tractors manufactured on or after July 1, 1971.* Every truck and truck tractor manufactured on or after July 1, 1971, except a truck or truck tractor being transported in driveaway-towaway operation and having an incomplete vehicle seating and cab configuration, must conform to the requirements of Federal Motor Vehicle Safety Standard No. 208<sup>1</sup> (§571.208) (relating to installation of seat belt assemblies) and Federal Motor Vehicle Safety Standard No. 210<sup>1</sup> (§571.210) (relating to installation of seat belt assembly anchorages).

<sup>1</sup> See footnote to §393.93(a).

(3) *Trucks and truck tractors manufactured on or after January 1, 1972.* Every truck and truck tractor manufactured on or after January 1, 1972, except a truck or truck tractor being transported in driveaway-towaway operation and having an incomplete vehicle seating and cab configuration, must conform to the requirements of Federal Motor Vehicle Safety Standard No. 207<sup>1</sup> (§571.207) (relating to seating systems).

(c) *Effective date of standards.* Whenever paragraph (a) or (b) of this section requires conformity to a Federal Motor Vehicle Safety Standard, the vehicle or equipment must conform to the version of the Standard that is in effect on the date the vehicle is manufactured or on the date the vehicle is modified to conform to the requirements of paragraph (a) or (b) of this section, whichever is later.

(d) Trucks and truck tractors manufactured on or after January 1, 1965, and before July 1, 1971, and operated in the State of Hawaii, must comply with the provisions of paragraph (b) of this section on and after January 1, 1976.

[35 FR 16839, Oct. 30, 1970, as amended at 39 FR 32561, Sept. 9, 1974; 40 FR 32336, Aug. 1, 1975]



**§ 393.94 Interior noise levels in power units.**

[↑ top](#)

(a) *Applicability of this section.* The interior noise level requirements apply to all trucks, truck-tractors, and buses.

(b) *General rule.* The interior sound level at the driver's seating position of a motor vehicle must not exceed 90 dB(A) when measured in accordance with paragraph (c) of this section.

(c) *Test procedure.* (1) Park the vehicle at a location so that no large reflecting surfaces, such as other vehicles, signboards, buildings, or hills, are within 50 feet of the driver's seating position.

(2) Close all vehicle doors, windows, and vents. Turn off all power-operated accessories.

(3) Place the driver in his/her normal seated position at the vehicle's controls. Evacuate all occupants except the driver and the person conducting the test.

(4) The sound level meters used to determine compliance with the requirements of this section must meet the American National Standards Institute "*Specification for Sound Level Meters*," ANSI S1.4—1983. (See §393.7(b) for information on the incorporation by reference and availability of this document.)

(5) Locate the microphone, oriented vertically upward, 6 inches to the right of, in the same plane as, and directly in line with, the driver's right ear.

(6) With the vehicle's transmission in neutral gear, accelerate its engine to either its maximum governed engine speed, if it is equipped with an engine governor, or its speed at its maximum rated horsepower, if it is not equipped with an engine governor. Stabilize the engine at that speed.

(7) Observe the A-weighted sound level reading on the meter for the stabilized engine speed condition. Record that reading, if the reading has not been influenced by extraneous noise sources such as motor vehicles operating on adjacent roadways.

(8) Return the vehicle's engine speed to idle and repeat the procedures specified in paragraphs (c) (6) and (7) of this section until two maximum sound levels within 2 dB of each other are recorded. Numerically average those two maximum sound level readings.

(9) The average obtained in accordance with paragraph (c)(8) of this section is the vehicle's interior sound level at the driver's seating position for the purpose of determining whether the vehicle conforms to the rule in paragraph (b) of this section. However, a 2 dB tolerance over the sound level limitation specified in that paragraph is permitted to allow for

variations in test conditions and variations in the capabilities of meters.

(10) If the motor vehicle's engine radiator fan drive is equipped with a clutch or similar device that automatically either reduces the rotational speed of the fan or completely disengages the fan from its power source in response to reduced engine cooling loads the vehicle may be parked before testing with its engine running at high idle or any other speed the operator may choose, for sufficient time but not more than 10 minutes, to permit the engine radiator fan to automatically disengage.

[38 FR 30881, Nov. 8, 1973, as amended at 40 FR 32336, Aug. 1, 1975; 41 FR 28268, July 9, 1976; 70 FR 48054, Aug. 15, 2005]

#### **Subpart H—Emergency Equipment**

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#### **§ 393.95 Emergency equipment on all power units.**

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Each truck, truck tractor, and bus (except those towed in driveaway-towaway operations) must be equipped as follows:

(a) *Fire Extinguishers*—(1) *Minimum ratings*: (i) A power unit that is used to transport hazardous materials in a quantity that requires placarding (See §177.823 of this title) must be equipped with a fire extinguisher having an Underwriters' Laboratories rating of 10 B:C or more.

(ii) A power unit that is not used to transport hazardous materials must be equipped with either:

(A) A fire extinguisher having an Underwriters' Laboratories rating of 5 B:C or more; or

(B) Two fire extinguishers, each of which has an Underwriters' Laboratories rating of 4 B:C or more.

(2) *Labeling and marking*. Each fire extinguisher required by this section must be labeled or marked by the manufacturer with its Underwriters' Laboratories rating.

(3) *Visual Indicators*. The fire extinguisher must be designed, constructed, and maintained to permit visual determination of whether it is fully charged.

(4) *Condition, location, and mounting*. The fire extinguisher(s) must be filled and located so that it is readily accessible for use. The extinguisher(s) must be securely mounted to

prevent sliding, rolling, or vertical movement relative to the motor vehicle.

(5) *Extinguishing agents.* The fire extinguisher must use an extinguishing agent that does not need protection from freezing. Extinguishing agents must comply with the toxicity provisions of the Environmental Protection Agency's Significant New Alternatives Policy (SNAP) regulations under 40 CFR Part 82, Subpart G.

(b) *Spare fuses.* Power units for which fuses are needed to operate any required parts and accessories must have at least one spare fuse for each type/size of fuse needed for those parts and accessories.

(c)–(e) [Reserved]

(f) *Warning devices for stopped vehicles.* Except as provided in paragraph (g) of this section, one of the following options must be used:

(1) Three bidirectional emergency reflective triangles that conform to the requirements of Federal Motor Vehicle Safety Standard No. 125, §571.125 of this title; or

(2) At least 6 fusees or 3 liquid-burning flares. The vehicle must have as many additional fusees or liquid-burning flares as are necessary to satisfy the requirements of §392.22.

(3) Other warning devices may be used in addition to, but not in lieu of, the required warning devices, provided those warning devices do not decrease the effectiveness of the required warning devices.

(g) *Restrictions on the use of flame-producing devices.* Liquid-burning flares, fusees, oil lanterns, or any signal produced by a flame shall not be carried on any commercial motor vehicle transporting Division 1.1, 1.2, 1.3 (explosives) hazardous materials; any cargo tank motor vehicle used for the transportation of Division 2.1 (flammable gas) or Class 3 (flammable liquid) hazardous materials whether loaded or empty; or any commercial motor vehicle using compressed gas as a motor fuel.

(h)—(i) [Reserved]

(j) *Requirements for fusees and liquid-burning flares.* Each fusee shall be capable of burning for 30 minutes, and each liquid-burning flare shall contain enough fuel to burn continuously for at least 60 minutes. Fusees and liquid-burning flares shall conform to the requirements of Underwriters Laboratories, Inc., UL No. 912, Highway Emergency Signals, Fourth Edition, July 30, 1979, (with an amendment dated November 9, 1981). (See §393.7(c) for information on the incorporation by reference and availability of this document.) Each fusee and liquid-burning flare shall be marked with the UL symbol in accordance with the requirements of UL 912.

(k) *Requirements for red flags.* Red flags shall be not less than 12 inches square, with

standards adequate to maintain the flags in an upright position.

(49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

[33 FR 19735, Dec. 25, 1968, as amended at 35 FR 13019, Aug. 15, 1970; 35 FR 14619, Sept. 18, 1970; 37 FR 17176, Aug. 25, 1972; 40 FR 10685, Mar. 7, 1975; 41 FR 53031, Dec. 3, 1976; 47 FR 47837, Oct. 28, 1982; 59 FR 34712, July 6, 1994; 67 FR 61225, Sept. 27, 2002; 70 FR 48054, Aug. 15, 2005]

#### **Subpart I—Protection Against Shifting and Falling Cargo**

[↑ top](#)

**Source:** 67 FR 61225, Sept. 27, 2002, unless otherwise noted.

#### **§ 393.100 Which types of commercial motor vehicles are subject to the cargo securement standards of this subpart, and what general requirements apply?**

[↑ top](#)

(a) *Applicability.* The rules in this subpart are applicable to trucks, truck tractors, semitrailers, full trailers, and pole trailers.

(b) *Prevention against loss of load.* Each commercial motor vehicle must, when transporting cargo on public roads, be loaded and equipped, and the cargo secured, in accordance with this subpart to prevent the cargo from leaking, spilling, blowing or falling from the motor vehicle.

(c) *Prevention against shifting of load.* Cargo must be contained, immobilized or secured in accordance with this subpart to prevent shifting upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely affected.

#### **§ 393.102 What are the minimum performance criteria for cargo securement devices and systems?**

[↑ top](#)

(a) *Performance criteria—(1) Breaking Strength.* Tiedown assemblies (including chains, wire rope, steel strapping, synthetic webbing, and cordage) and other attachment or fastening devices used to secure articles of cargo to, or in, commercial motor vehicles must be designed, installed, and maintained to ensure that the maximum forces acting on the devices or systems do not exceed the manufacturer's breaking strength rating under the following conditions, applied separately:

(i) 0.8 g deceleration in the forward direction;

(ii) 0.5 g acceleration in the rearward direction; and

(iii) 0.5 g acceleration in a lateral direction.

(2) *Working Load Limit.* Tiedown assemblies (including chains, wire rope, steel strapping, synthetic webbing, and cordage) and other attachment or fastening devices used to secure articles of cargo to, or in, commercial motor vehicles must be designed, installed, and maintained to ensure that the forces acting on the devices or systems do not exceed the working load limit for the devices under the following conditions, applied separately:

(i) 0.435 g deceleration in the forward direction;

(ii) 0.5 g acceleration in the rearward direction; and

(iii) 0.25 g acceleration in a lateral direction.

(b) *Performance criteria for devices to prevent vertical movement of loads that are not contained within the structure of the vehicle.* Securement systems must provide a downward force equivalent to at least 20 percent of the weight of the article of cargo if the article is not fully contained within the structure of the vehicle. If the article is fully contained within the structure of the vehicle, it may be secured in accordance with Sec. 393.106(b).

(c) *Equivalent means of securement.* The means of securing articles of cargo are considered to meet the performance requirements of this section if the cargo is “

(1) Immobilized, such so that it cannot shift or tip to the extent that the vehicle's stability or maneuverability is adversely affected; or

(2) Transported in a sided vehicle that has walls of adequate strength, such that each article of cargo within the vehicle is in contact with, or sufficiently close to a wall or other articles, so that it cannot shift or tip to the extent that the vehicle's stability or maneuverability is adversely affected; or

(3) Secured in accordance with the applicable requirements of §§393.104 through 393.136.

[71 FR 35832, June 22, 2006]

**§ 393.104 What standards must cargo securement devices and systems meet in order to satisfy the requirements of this subpart?**

[↑ top](#)

(a) *General.* All devices and systems used to secure cargo to or within a vehicle must be



(4) Wire rope \3\.....	Wire Rope
Technical Board's Wire Rope Users Manual,	
	2nd
Edition, November 1985.\4\	
(5) Cordage.....	Cordage
Institute rope standard:	
	(i)
PETRS-2, Polyester Fiber Rope, three-Strand	
	and
eight-Strand Constructions, January 1993;	
	\4\
	(ii)
PPRS-2, Polypropylene Fiber Rope, three-	
and eight-Strand Constructions, August	Strand
	1992; \
4\	
	(iii)
CRS-1, Polyester/Polypropylene Composite	
Specifications, three-Strand and eight-	Rope
Standard Construction, May 1979; \4\	
	Strand
	(iv)
NRS-1, Nylon Rope Specifications, three-	
and eight-Strand Standard Construction,	Strand
	May
1979; \4\ and	
	(v) C-1,
Double Braided Nylon Rope	
Specifications DBN, January 1984.\4\	

- 
- \1\ Steel strapping not marked by the manufacturer with a working load limit will be considered to have a working load limit equal to one-fourth of the breaking strength listed in ASTM D3953-97.
- \2\ Steel strapping 25.4 mm (1 inch) or wider must have at least two pairs of crimps in each seal and, when an end-over-end lap joint is formed, must be sealed with at least two seals.
- \3\ Wire rope which is not marked by the manufacturer with a working load limit shall be considered to have a working load limit equal to one-fourth of the nominal strength listed in the manual.
- \4\ See § 393.7 for information on the incorporation by reference and availability of this document.

- (f) *Use of tiedowns.* (1) Tiedowns and securing devices must not contain knots.
- (2) If a tiedown is repaired, it must be repaired in accordance with the applicable standards in paragraph (e) of this section, or the manufacturer's instructions.

(3) Each tiedown must be attached and secured in a manner that prevents it from becoming loose, unfastening, opening or releasing while the vehicle is in transit.

(4) Edge protection must be used whenever a tiedown would be subject to abrasion or cutting at the point where it touches an article of cargo. The edge protection must resist abrasion, cutting and crushing.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

**§ 393.106 What are the general requirements for securing articles of cargo?**

[↑ top](#)

(a) *Applicability.* The rules in this section are applicable to the transportation of all types of articles of cargo, except commodities in bulk that lack structure or fixed shape (*e.g.*, liquids, gases, grain, liquid concrete, sand, gravel, aggregates) and are transported in a tank, hopper, box, or similar device that forms part of the structure of a commercial motor vehicle. The rules in this section apply to the cargo types covered by the commodity-specific rules of §393.116 through §393.136. The commodity-specific rules take precedence over the general requirements of this section when additional requirements are given for a commodity listed in those sections.

(b) *General.* Cargo must be firmly immobilized or secured on or within a vehicle by structures of adequate strength, dunnage or dunnage bags, shoring bars, tiedowns or a combination of these.

(c) *Cargo placement and restraint.* (1) Articles of cargo that are likely to roll must be restrained by chocks, wedges, a cradle or other equivalent means to prevent rolling. The means of preventing rolling must not be capable of becoming unintentionally unfastened or loose while the vehicle is in transit.

(2) Articles or cargo placed beside each other and secured by transverse tiedowns must either:

(i) Be placed in direct contact with each other, or

(ii) Be prevented from shifting towards each other while in transit.

(d) *Aggregate working load limit for tiedowns.* The aggregate working load limit of tiedowns used to secure an article or group of articles against movement must be at least one-half times the weight of the article or group of articles. The aggregate working load limit is the sum of:

(1) One-half the working load limit of each tiedown that goes from an anchor point on the



vehicle to an anchor point on an article of cargo;

(2) One-half the working load limit of each tiedown that is attached to an anchor point on the vehicle, passes through, over, or around the article of cargo, and is then attached to an anchor point on the same side of the vehicle.

(3) The working load limit for each tiedown that goes from an anchor point on the vehicle, through, over, or around the article of cargo, and then attaches to another anchor point on the other side of the vehicle.

[67 FR 61225, Sept. 27, 2002, as amended at 68 FR 56208, Sept. 30, 2003; 71 FR 35833, June 22, 2006]

**§ 393.108 How is the working load limit of a tiedown, or the load restraining value of a friction mat, determined?**

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(a) The working load limit (WLL) of a tiedown, associated connector or attachment mechanism is the lowest working load limit of any of its components (including tensioner), or the working load limit of the anchor points to which it is attached, whichever is less.

(b) The working load limits of tiedowns may be determined by using either the tiedown manufacturer's markings or by using the tables in this section. The working load limits listed in the tables are to be used when the tiedown material is not marked by the manufacturer with the working load limit. Tiedown materials which are marked by the manufacturer with working load limits that differ from the tables, shall be considered to have a working load limit equal to the value for which they are marked.

(c) Synthetic cordage (*e.g.*, nylon, polypropylene, polyester) which is not marked or labeled to enable identification of its composition or working load limit shall be considered to have a working load limit equal to that for polypropylene fiber rope.

(d) Welded steel chain which is not marked or labeled to enable identification of its grade or working load limit shall be considered to have a working load limit equal to that for grade 30 proof coil chain.

(e)(1) Wire rope which is not marked by the manufacturer with a working load limit shall be considered to have a working load limit equal to one-fourth of the nominal strength listed in the Wire Rope Users Manual.

(2) Wire which is not marked or labeled to enable identification of its construction type shall be considered to have a working load limit equal to that for 6 × 37, fiber core wire rope.

(f) Manila rope which is not marked by the manufacturer with a working load limit shall be considered to have a working load limit based on its diameter as provided in the tables of working load limits.

(g) Friction mats which are not marked or rated by the manufacturer shall be considered to provide resistance to horizontal movement equal to 50 percent of the weight placed on the mat.

to § 393.108  
 Limits (WLL), Chain] Tables  
 [Working Load

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WLL in kg (pounds)

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	Size mm (inches)			
30 proof	Grade 43 high	Grade 70	Grade 80 alloy	Grade
coil	test	transport	Grade 80 alloy	Grade
100 alloy				

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1. 7 (1/4).....				580
(1,300)	1,180 (2,600)	1,430 (3,150)	1,570 (3,500)	1,950
(4,300)				
2. 8 (5/16).....				860
(1,900)	1,770 (3,900)	2,130 (4,700)	2,000 (4,500)	2,600
(5,700)				
3. 10 (3/8).....				1,200
(2,650)	2,450 (5,400)	2,990 (6,600)	3,200 (7,100)	4,000
(8,800)				
4. 11 (7/16).....				1,680
(3,700)	3,270 (7,200)	3,970 (8,750)		
5. 13 (1/2).....				2,030
(4,500)	4,170 (9,200)	5,130 (11,300)	5,400 (12,000)	6,800
(15,000)				
6. 16 (5/8).....				3,130
(6,900)	5,910 (13,000)	7,170 (15,800)	8,200 (18,100)	10,300
(22,600)				

Chain Mark Examples:

Example 1.....				
3	4	7	8	
10				
Example 2.....				
30	43	70	80	
100				

Example 3.....			
300	430	700	800
1000			

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Synthetic Webbing

Width mm (inches)	WLL kg (pounds)
45 (1\3/4\)	790 (1,750)
50 (2)	910 (2,000)
75 (3)	1,360 (3,000)
100 (4)	1,810 (4,000)

Wire Rope (6 x 37, Fiber Core)

Diameter mm (inches)	WLL kg (pounds)
7 (1/4)	640 (1,400)
8 (5/16)	950 (2,100)
10 (3/8)	1,360 (3,000)
11 (7/16)	1,860 (4,100)
13 (1/2)	2,400 (5,300)
16 (5/8)	3,770 (8,300)
20 (3/4)	4,940 (10,900)
22 (7/8)	7,300 (16,100)
25 (1)	9,480 (20,900)

Manila Rope

Diameter mm (inches)	WLL kg (pounds)
10 (3/8)	90 (205)
11 (7/16)	120 (265)
13 (1/2)	150 (315)
16 (5/8)	210 (465)
20 (3/4)	290 (640)
25 (1)	480 (1,050)

Polypropylene Fiber Rope WLL (3-Strand and 8-Strand Constructions)

Diameter mm (inches)	WLL kg (pounds)
10 (3/8)	180 (400)

11 (7/16).....	240 (525)
13 (1/2).....	280 (625)
16 (5/8).....	420 (925)
20 (3/4).....	580 (1,275)
25 (1).....	950 (2,100)

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Polyester Fiber Rope WLL (3-Strand and 8-Strand Constructions)

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Diameter mm (inches)	WLL kg (pounds)
10 (3/8).....	250 (555)
11 (7/16).....	340 (750)
13 (1/2).....	440 (960)
16 (5/8).....	680 (1,500)
20 (3/4).....	850 (1,880)
25 (1).....	1,500 (3,300)

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Nylon Rope

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Diameter mm (inches)	WLL kg (pounds)
10 (3/8).....	130 (278)
11 (7/16).....	190 (410)
13 (1/2).....	240 (525)
16 (5/8).....	420 (935)
20 (3/4).....	640 (1,420)
25 (1).....	1,140 (2,520)

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Double Braided Nylon Rope

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Diameter mm (inches)	WLL kg (pounds)
10 (3/8).....	150 (336)
11 (7/16).....	230 (502)
13 (1/2).....	300 (655)
16 (5/8).....	510 (1,130)
20 (3/4).....	830 (1,840)
25 (1).....	1,470 (3,250)

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Steel Strapping

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Width x thickness mm (inches)	WLL kg (pounds)
31.7 x .74 (1 1/4 x 0.029).....	540 (1,190)
31.7 x .79 (1 1/4 x 0.031).....	540 (1,190)

31.7 x .89 (1\1/4\ x 0.035).....	540 (1,190)
31.7 x 1.12 (1\1/4\ x 0.044).....	770 (1,690)
31.7 x 1.27 (1\1/4\ x 0.05).....	770 (1,690)
31.7 x 1.5 (1\1/4\ x 0.057).....	870 (1,925)
50.8 x 1.12 (2 x 0.044).....	1,200 (2,650)
50.8 x 1.27 (2 x 0.05).....	1,200 (2,650)
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**§ 393.110 What else do I have to do to determine the minimum number of tiedowns?**

[↑ top](#)

(a) When tiedowns are used as part of a cargo securement system, the minimum number of tiedowns required to secure an article or group of articles against movement depends on the length of the article(s) being secured, and the requirements of paragraphs (b) and (c) of this section. These requirements are in addition to the rules under §393.106.

(b) When an article is not blocked or positioned to prevent movement in the forward direction by a headerboard, bulkhead, other cargo that is positioned to prevent movement, or other appropriate blocking devices, it must be secured by at least:

(1) One tiedown for articles 5 feet (1.52 meters) or less in length, and 1,100 pounds (500 kg) or less in weight;

(2) Two tiedowns if the article is:

(i) 5 feet (1.52 meters) or less in length and more than 1,100 pounds (500 kg) in weight; or

(ii) Longer than 5 feet (1.52 meters) but less than or equal to 10 feet (3.04 meters) in length, irrespective of the weight.

(3) Two tiedowns if the article is longer than 10 feet (3.04 meters), and one additional tiedown for every 10 feet (3.04 meters) of article length, or fraction thereof, beyond the first 10 feet (3.04 meters) of length.

(c) If an individual article is blocked, braced, or immobilized to prevent movement in the forward direction by a headerboard, bulkhead, other articles which are adequately secured or by an appropriate blocking or immobilization method, it must be secured by at least one tiedown for every 3.04 meters (10 feet) of article length, or fraction thereof.

(d) *Special rule for special purpose vehicles.* The rules in this section do not apply to a vehicle transporting one or more articles of cargo such as, but not limited to, machinery or fabricated structural items (e.g., steel or concrete beams, crane booms, girders, and trusses, etc.) which, because of their design, size, shape, or weight, must be fastened by special methods. However, any article of cargo carried on that vehicle must be securely and adequately fastened to the vehicle.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

**§ 393.112 Must a tiedown be adjustable?**

[↑ top](#)

Each tiedown, or its associated connectors, or its attachment mechanisms must be designed, constructed, and maintained so the driver of an in-transit commercial motor vehicle can tighten them. However, this requirement does not apply to the use of steel strapping.

**§ 393.114 What are the requirements for front end structures used as part of a cargo securement system?**

[↑ top](#)

(a) *Applicability.* The rules in this section are applicable to commercial motor vehicles transporting articles of cargo that are in contact with the front end structure of the vehicle. The front end structure on these cargo-carrying vehicles must meet the performance requirements of this section.

(b) *Height and width.* (1) The front end structure must extend either to a height of 4 feet above the floor of the vehicle or to a height at which it blocks forward movement of any item or article of cargo being carried on the vehicle, whichever is lower.

(2) The front end structure must have a width which is at least equal to the width of the vehicle or which blocks forward movement of any article of cargo being transported on the vehicle, whichever is narrower.

(c) *Strength.* The front end structure must be capable of withstanding the following horizontal forward static load:

(1) For a front end structure less than 6 feet in height, a horizontal forward static load equal to one-half (0.5) of the weight of the articles of cargo being transported on the vehicle uniformly distributed over the entire portion of the front end structure that is within 4 feet above the vehicle's floor or that is at or below a height above the vehicle's floor at which it blocks forward movement of any article of the vehicle's cargo, whichever is less; or

(2) For a front end structure 6 feet in height or higher, a horizontal forward static load equal to four-tenths (0.4) of the weight of the articles of cargo being transported on the vehicle uniformly distributed over the entire front end structure.

(d) *Penetration resistance.* The front end structure must be designed, constructed, and maintained so that it is capable of resisting penetration by any article of cargo that contacts it when the vehicle decelerates at a rate of 20 feet per second, per second. The front end structure must have no aperture large enough to permit any article of cargo in contact with

the structure to pass through it.

(e) *Substitute devices.* The requirements of this section may be met by the use of devices performing the same functions as a front end structure, if the devices are at least as strong as, and provide protection against shifting articles of cargo at least equal to, a front end structure which conforms to those requirements.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

#### **Specific Securement Requirements by Commodity Type**

[↑ top](#)

#### **§ 393.116 What are the rules for securing logs?**

[↑ top](#)

(a) *Applicability.* The rules in this section are applicable to the transportation of logs with the following exceptions:

(1) Logs that are unitized by banding or other comparable means may be transported in accordance with the general cargo securement rules of §§393.100 through 393.114.

(2) Loads that consist of no more than four processed logs may be transported in accordance with the general cargo securement rules of §§393.100 through 393.114.

(3) Firewood, stumps, log debris and other such short logs must be transported in a vehicle or container enclosed on both sides, front, and rear and of adequate strength to contain them. Longer logs may also be so loaded.

(b) *Components of a securement system.* (1) Logs must be transported on a vehicle designed and built, or adapted, for the transportation of logs. Any such vehicle must be fitted with bunks, bolsters, stakes or standards, or other equivalent means, that cradle the logs and prevent them from rolling.

(2) All vehicle components involved in securement of logs must be designed and built to withstand all anticipated operational forces without failure, accidental release or permanent deformation. Stakes or standards that are not permanently attached to the vehicle must be secured in a manner that prevents unintentional separation from the vehicle in transit.

(3) Tiedowns must be used in combination with the stabilization provided by bunks, stakes, and bolsters to secure the load unless the logs:

(i) are transported in a crib-type log trailer (as defined in 49 CFR 393.5), and

(ii) are loaded in compliance with paragraphs (b)(2) and (c) of this section.

(4) The aggregate working load limit for tiedowns used to secure a stack of logs on a frame vehicle, or a flatbed vehicle equipped with bunks, bolsters, or stakes must be at least one-sixth the weight of the stack of logs.

(c) *Use of securement system.* (1) Logs must be solidly packed, and the outer bottom logs must be in contact with and resting solidly against the bunks, bolsters, stakes or standards.

(2) Each outside log on the side of a stack of logs must touch at least two stakes, bunks, bolsters, or standards. If one end does not actually touch a stake, it must rest on other logs in a stable manner and must extend beyond the stake, bunk, bolster or standard.

(3) The center of the highest outside log on each side or end must be below the top of each stake, bunk or standard.

(4) Each log that is not held in place by contact with other logs or the stakes, bunks, or standards must be held in place by a tiedown. Additional tiedowns or securement devices must be used when the condition of the wood results in such low friction between logs that they are likely to slip upon each other.

(d) *Securement of shortwood logs loaded crosswise on frame, rail and flatbed vehicles.* In addition to the requirements of paragraphs (b) and (c) of this section, each stack of logs loaded crosswise must meet the following rules:

(1) In no case may the end of a log in the lower tier extend more than one-third of the log's total length beyond the nearest supporting structure on the vehicle.

(2) When only one stack of shortwood is loaded crosswise, it must be secured with at least two tiedowns. The tiedowns must attach to the vehicle frame at the front and rear of the load, and must cross the load in this direction.

(3) When two tiedowns are used, they must be positioned at approximately one-third and two-thirds of the length of the logs.

(4) A vehicle that is more than 10 meters (33 feet) long must be equipped with center stakes, or comparable devices, to divide it into sections approximately equal in length. Where a vehicle is so divided, each tiedown must secure the highest log on each side of the center stake, and must be fastened below these logs. It may be fixed at each end and tensioned from the middle, or fixed in the middle and tensioned from each end, or it may pass through a pulley or equivalent device in the middle and be tensioned from one end.

(5) Any structure or stake that is subjected to an upward force when the tiedowns are



tensioned must be anchored to resist that force.

(6) If two stacks of shortwood are loaded side-by-side, in addition to meeting the requirements of paragraphs (d)(1) through (d)(5) of this section, they must be loaded so that:

(i) There is no space between the two stacks of logs;

(ii) The outside of each stack is raised at least 2.5 cm (1 in) within 10 cm (4 in) of the end of the logs or the side of the vehicle;

(iii) The highest log is no more than 2.44 m (8 ft) above the deck; and

(iv) At least one tiedown is used lengthwise across each stack of logs.

(e) *Securement of logs loaded lengthwise on flatbed and frame vehicles—(1) Shortwood.* In addition to meeting the requirements of paragraphs (b) and (c) of this section, each stack of shortwood loaded lengthwise on a frame vehicle or on a flatbed must be cradled in a bunk unit or contained by stakes and

(i) Secured to the vehicle by at least two tiedowns, or

(ii) If all the logs in any stack are blocked in the front by a front-end structure strong enough to restrain the load, or by another stack of logs, and blocked in the rear by another stack of logs or vehicle end structure, the stack may be secured with one tiedown. If one tiedown is used, it must be positioned about midway between the stakes, or

(iii) Be bound by at least two tiedown-type devices such as wire rope, used as wrappers that encircle the entire load at locations along the load that provide effective securement. If wrappers are being used to bundle the logs together, the wrappers are not required to be attached to the vehicle.

(2) *Longwood.* Longwood must be cradled in two or more bunks and must either:

(i) Be secured to the vehicle by at least two tiedowns at locations that provide effective securement, or

(ii) Be bound by at least two tiedown-type devices, such as wire rope, used as wrappers that encircle the entire load at locations along the load that provide effective securement. If a wrapper(s) is being used to bundle the logs together, the wrapper is not required to be attached to the vehicle.

(f) *Securement of logs transported on pole trailers.* (1) The load must be secured by at least one tiedown at each bunk, or alternatively, by at least two tiedowns used as wrappers that encircle the entire load at locations along the load that provide effective securement.

(2) The front and rear wrappers must be at least 3.04 meters (10 feet) apart.

(3) Large diameter single and double log loads must be immobilized with chock blocks or other equivalent means to prevent shifting.

(4) Large diameter logs that rise above bunks must be secured to the underlying load with at least two additional wrappers.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

**§ 393.118 What are the rules for securing dressed lumber or similar building products?**

[↑ top](#)

(a) *Applicability.* The rules in this section apply to the transportation of bundles of dressed lumber, packaged lumber, building products such as plywood, gypsum board or other materials of similar shape. Lumber or building products which are not bundled or packaged must be treated as loose items and transported in accordance with §§393.100 through 393.114 of this subpart. For the purpose of this section, “bundle” refers to packages of lumber, building materials or similar products which are unitized for securement as a single article of cargo.

(b) *Positioning of bundles.* Bundles must be placed side by side in direct contact with each other, or a means must be provided to prevent bundles from shifting towards each other.

(c) *Securement of bundles transported using no more than one tier.* Bundles carried on one tier must be secured in accordance with the general provisions of §§393.100 through 393.114.

(d) *Securement of bundles transported using more than one tier.* Bundles carried in more than one tier must be either:

(1) Blocked against lateral movement by stakes on the sides of the vehicle and secured by tiedowns laid out over the top tier, as outlined in the general provisions of §§393.100 through 393.114; or

(2) Restrained from lateral movement by blocking or high friction devices between tiers and secured by tiedowns laid out over the top tier, as outlined in the general provisions of §§393.100 through 393.114; or

(3) Placed directly on top of other bundles or on spacers and secured in accordance with the following:

(i) The length of spacers between bundles must provide support to all pieces in the bottom row of the bundle.

- (ii) The width of individual spacers must be equal to or greater than the height.
- (iii) If spacers are comprised of layers of material, the layers must be unitized or fastened together in a manner which ensures that the spacer performs as a single piece of material.
- (iv) The arrangement of the tiedowns for the bundles must be:
  - (A) Secured by tiedowns over the top tier of bundles, in accordance with the general provisions of §§393.100 through 393.114 with a minimum of two tiedowns for bundles longer than 1.52 meters (5 ft); and
  - (B) Secured by tiedowns as follows:
    - (1) If there are 3 tiers, the middle and top bundles must be secured by tiedowns in accordance with the general provisions of §§393.100 through 393.114; or
    - (2)(I) If there are more than 3 tiers, then one of the middle bundles and the top bundle must be secured by tiedown devices in accordance with the general provision of §§393.100 through 393.114, and the maximum height for the middle tier that must be secured may not exceed 6 feet about the deck of the trailer; or
    - (ii) Otherwise, the second tier from the bottom must be secured in accordance with the general provisions of §§393.100 through 393.114; or
    - (4) Secured by tiedowns over each tier of bundles, in accordance with §§393.100 through 393.114 using a minimum of two tiedowns over each of the top bundles longer than 1.52 meters (5 ft), in all circumstances; or
    - (5) When loaded in a sided vehicle or container of adequate strength, dressed lumber or similar building products may be secured in accordance with the general provisions of §§393.100 through 393.114.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35834, June 22, 2006]

**§ 393.120 What are the rules for securing metal coils?**

[↑ top](#)

- (a) *Applicability.* The rules in this section apply to the transportation of one or more metal coils which, individually or grouped together, weigh 2268 kg (5000 pounds) or more. Shipments of metal coils that weigh less than 2268 kg (5000 pounds) may be secured in accordance with the provisions of §§393.100 through 393.114.
- (b) *Securement of coils transported with eyes vertical on a flatbed vehicle, in a sided vehicle or intermodal container with anchor points—*(1) *An individual coil.* Each coil must

be secured by tiedowns arranged in a manner to prevent the coils from tipping in the forward, rearward, and lateral directions. The restraint system must include the following:

(i) At least one tiedown attached diagonally from the left side of the vehicle or intermodal container (near the forwardmost part of the coil), across the eye of the coil, to the right side of the vehicle or intermodal container (near the rearmost part of the coil);

(ii) At least one tiedown attached diagonally from the right side of the vehicle or intermodal container (near the forwardmost part of the coil), across the eye of the coil, to the left side of the vehicle or intermodal container (near the rearmost part of the coil);

(iii) At least one tiedown attached transversely over the eye of the coil; and

(iv) Either blocking and bracing, friction mats or tiedowns must be used to prevent longitudinal movement in the forward direction.

(2) *Coils grouped in rows.* When coils are grouped and loaded side by side in a transverse or longitudinal row, the each row of coils must be secured by the following:

(i) At least one tiedown attached to the front of the row of coils, restraining against forward motion, and whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(ii) At least one tiedown attached to the rear of the row of coils, restraining against rearward motion, and whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(iii) At least one tiedown over the top of each coil or transverse row of coils, restraining against vertical motion. Tiedowns going over the top of a coil(s) must be as close as practicable to the eye of the coil and positioned to prevent the tiedown from slipping or becoming unintentionally unfastened while the vehicle is in transit; and

(iv) Tiedowns must be arranged to prevent shifting or tipping in the forward, rearward and lateral directions.

(c) *Securement of coils transported with eyes crosswise on a flatbed vehicle, in a sided vehicle or intermodal container with anchor points—*(1) *An individual coil.* Each coil must be secured by the following:

(i) A means (*e.g.*, timbers, chocks or wedges, a cradle, etc.) to prevent the coil from rolling. The means of preventing rolling must support the coil off the deck, and must not be capable of becoming unintentionally unfastened or loose while the vehicle is in transit. If timbers, chocks or wedges are used, they must be held in place by coil bunks or similar devices to

prevent them from coming loose. The use of nailed blocking or cleats as the sole means to secure timbers, chocks or wedges, or a nailed wood cradle, is prohibited;

(ii) At least one tiedown through its eye, restricting against forward motion, and whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container; and

(iii) At least one tiedown through its eye, restricting against rearward motion, and whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container.

(2) *Prohibition on crossing of tiedowns when coils are transported with eyes crosswise.* Attaching tiedowns diagonally through the eye of a coil to form an X-pattern when viewed from above the vehicle is prohibited.

(d) *Securement of coils transported with eyes lengthwise on a flatbed vehicle, in a sided vehicle or intermodal container with anchor points—(1) An individual coil—option 1.* Each coil must be secured by:

(i) A means (*e.g.*, timbers, chocks or wedges, a cradle, etc.) to prevent the coil from rolling. The means of preventing rolling must support the coil off the deck, and must not be capable of becoming unintentionally unfastened or loose while the vehicle is in transit. If timbers, chocks or wedges are used, they must be held in place by coil bunks or similar devices to prevent them from coming loose. The use of nailed blocking or cleats as the sole means to secure timbers, chocks or wedges, or a nailed wood cradle, is prohibited;

(ii) At least one tiedown attached diagonally through its eye from the left side of the vehicle or intermodal container (near the forward-most part of the coil), to the right side of the vehicle or intermodal container (near the rearmost part of the coil), making an angle no more than 45 degrees, whenever practicable, with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(iii) At least one tiedown attached diagonally through its eye, from the right side of the vehicle or intermodal container (near the forward-most part of the coil), to the left side of the vehicle or intermodal container (near the rearmost part of the coil), making an angle no more than 45 degrees, whenever practicable, with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(iv) At least one tiedown attached transversely over the top of the coil; and

(v) Either blocking, or friction mats to prevent longitudinal movement.

(2) *An individual coil—option 2.* Each coil must be secured by:

(i) A means (*e.g.*, timbers, chocks or wedges, a cradle, etc.) to prevent the coil from rolling.

The means of preventing rolling must support the coil off the deck, and must not be capable of becoming unintentionally unfastened or loose while the vehicle is in transit. If timbers, chocks or wedges are used, they must be held in place by coil bunks or similar devices to prevent them from coming loose. The use of nailed blocking or cleats as the sole means to secure timbers, chocks or wedges, or a nailed wood cradle, is prohibited;

(ii) At least one tiedown attached straight through its eye from the left side of the vehicle or intermodal container (near the forward-most part of the coil), to the left side of the vehicle or intermodal container (near the rearmost part of the coil), and, whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(iii) At least one tiedown attached straight through its eye, from the right side of the vehicle or intermodal container (near the forward-most part of the coil), to the right side of the vehicle or intermodal container (near the rearmost part of the coil), and whenever practicable, making an angle no more than 45 degrees with the floor of the vehicle or intermodal container when viewed from the side of the vehicle or container;

(iv) At least one tiedown attached transversely over the top of the coil; and

(v) Either blocking or friction mats to prevent longitudinal movement.

(3) *An individual coil—option 3.* Each coil must be secured by:

(i) A means (*e.g.*, timbers, chocks or wedges, a cradle, etc.) to prevent the coil from rolling. The means of preventing rolling must support the coil off the deck, and must not be capable of becoming unintentionally unfastened or loose while the vehicle is in transit. If timbers, chocks or wedges are used, they must be held in place by coil bunks or similar devices to prevent them from coming loose. The use of nailed blocking or cleats as the sole means to secure timbers, chocks or wedges, or a nailed wood cradle, is prohibited;

(ii) At least one tiedown over the top of the coil, located near the forward-most part of the coil;

(iii) At least one tiedown over the top of the coil located near the rearmost part of the coil; and

(iv) Either blocking or friction mats to prevent longitudinal movement in the forward direction.

(4) *Rows of coils.* Each transverse row of coils having approximately equal outside diameters must be secured with:

(i) A means (*e.g.*, timbers, chocks or wedges, a cradle, etc.) to prevent each coil in the row of coils from rolling. The means of preventing rolling must support each coil off the deck, and must not be capable of becoming unintentionally unfastened or loose while the vehicle

is in transit. If timbers, chocks or wedges are used, they must be held in place by coil bunks or similar devices to prevent them from coming loose. The use of nailed blocking or cleats as the sole means to secure timbers, chocks or wedges, or a nailed wood cradle, is prohibited;

(ii) At least one tiedown over the top of each coil or transverse row, located near the forward-most part of the coil;

(iii) At least one tiedown over the top of each coil or transverse row, located near the rearmost part of the coil; and

(iv) Either blocking, bracing or friction mats to prevent longitudinal movement.

(e) *Securement of coils transported in a sided vehicle without anchor points or an intermodal container without anchor points.* Metal coils transported in a vehicle with sides without anchor points or an intermodal container without anchor points must be loaded in a manner to prevent shifting and tipping. The coils may also be secured using a system of blocking and bracing, friction mats, tiedowns, or a combination of these to prevent any horizontal movement and tipping.

#### § 393.122 What are the rules for securing paper rolls?

[↑ top](#)

(a) *Applicability.* The rules in this section apply to shipments of paper rolls which, individually or together, weigh 2268 kg (5000 lb) or more. Shipments of paper rolls that weigh less than 2268 kg (5000 lb), and paper rolls that are unitized on a pallet, may either be secured in accordance with the rules in this section or the requirements of §§393.100 through 393.114.

(b) *Securement of paper rolls transported with eyes vertical in a sided vehicle.* (1) Paper rolls must be placed tightly against the walls of the vehicle, other paper rolls, or other cargo, to prevent movement during transit.

(2) If there are not enough paper rolls in the shipment to reach the walls of the vehicle, lateral movement must be prevented by filling the void, blocking, bracing, tiedowns or friction mats. The paper rolls may also be banded together.

(3) When any void behind a group of paper rolls, including that at the rear of the vehicle, exceeds the diameter of the paper rolls, rearward movement must be prevented by friction mats, blocking, bracing, tiedowns, or banding to other rolls.

(4)(i) If a paper roll is not prevented from tipping or falling sideways or rearwards by vehicle structure or other cargo, and its width is more than 2 times its diameter, it must be prevented from tipping or falling by banding it to other rolls, bracing, or tiedowns.

(ii) If the forwardmost roll(s) in a group of paper rolls has a width greater than 1.75 times its diameter and it is not prevented from tipping or falling forwards by vehicle structure or other cargo, then it must be prevented from tipping or falling forwards by banding it to other rolls, bracing, or tiedowns.

(iii) If the forwardmost roll(s) in a group of paper rolls has a width equal to or less than 1.75 times its diameter, and it is restrained against forward movement by friction mat(s) alone, then banding, bracing, or tiedowns are not required to prevent tipping or falling forwards.

(iv) If a paper roll or the forwardmost roll in a group of paper rolls has a width greater than 1.25 times its diameter, and it is not prevented from tipping or falling forwards by vehicle structure or other cargo, and it is not restrained against forward movement by friction mat(s) alone, then it must be prevented from tipping or falling by banding it to other rolls, bracing or tiedowns.

(5) If paper rolls are banded together, the rolls must be placed tightly against each other to form a stable group. The bands must be applied tightly, and must be secured so that they cannot fall off the rolls or to the deck.

(6) A friction mat used to provide the principal securement for a paper roll must protrude from beneath the roll in the direction in which it is providing that securement.

*(c) Securement of split loads of paper rolls transported with eyes vertical in a sided vehicle.*

(1) If a paper roll in a split load is not prevented from forward movement by vehicle structure or other cargo, it must be prevented from forward movement by filling the open space, or by blocking, bracing, tiedowns, friction mats, or some combination of these.

(2) A friction mat used to provide the principal securement for a paper roll must protrude from beneath the roll in the direction in which it is providing that securement.

*(d) Securement of stacked loads of paper rolls transported with eyes vertical in a sided vehicle.* (1) Paper rolls must not be loaded on a layer of paper rolls beneath unless the lower layer extends to the front of the vehicle.

(2) Paper rolls in the second and subsequent layers must be prevented from forward, rearward or lateral movement by means as allowed for the bottom layer, or by use of a blocking roll from a lower layer.

(3) The blocking roll must be at least 38 mm (1.5 in) taller than other rolls, or must be raised at least 38 mm (1.5 in) using dunnage.

(4) A roll in the rearmost row of any layer raised using dunnage may not be secured by friction mats alone.



(e) *Securement of paper rolls transported with eyes crosswise in a sided vehicle.* (1) The paper rolls must be prevented from rolling or shifting longitudinally by contact with vehicle structure or other cargo, by chocks, wedges or blocking and bracing of adequate size, or by tiedowns.

(2) Chocks, wedges or blocking must be held securely in place by some means in addition to friction, so they cannot become unintentionally unfastened or loose while the vehicle is in transit.

(3) The rearmost roll must not be secured using the rear doors of the vehicle or intermodal container, or by blocking held in place by those doors.

(4) If there is more than a total of 203 mm (8 in) of space between the ends of a paper roll, or a row of rolls, and the walls of the vehicle, void fillers, blocking, bracing, friction mats, or tiedowns must be used to prevent the roll from shifting towards either wall.

(f) *Securement of stacked loads of paper rolls transported with eyes crosswise in a sided vehicle.* (1) Rolls must not be loaded in a second layer unless the bottom layer extends to the front of the vehicle.

(2) Rolls must not be loaded in a third or higher layer unless all wells in the layer beneath are filled.

(3) The foremost roll in each upper layer, or any roll with an empty well in front of it, must be secured against forward movement by:

(i) Banding it to other rolls, or

(ii) Blocking against an adequately secured eye-vertical blocking roll resting on the floor of the vehicle which is at least 1.5 times taller than the diameter of the roll being blocked, or

(iii) Placing it in a well formed by two rolls on the lower row whose diameter is equal to or greater than that of the roll on the upper row.

(4) The rearmost roll in each upper layer must be secured by banding it to other rolls if it is located in either of the last two wells formed by the rearmost rolls in the layer below.

(5) Rolls must be secured against lateral movement by the same means allowed for the bottom layer when there is more than a total of 203 mm (8 in) of space between the ends of a paper roll, or a row of rolls, and the walls of the vehicle.

(g) *Securement of paper rolls transported with the eyes lengthwise in a sided vehicle.* (1) Each roll must be prevented from forward movement by contact with vehicle structure, other cargo, blocking or tiedowns.

(2) Each roll must be prevented from rearward movement by contact with other cargo, blocking, friction mats or tiedowns.

(3) The paper rolls must be prevented from rolling or shifting laterally by contact with the wall of the vehicle or other cargo, or by chocks, wedges or blocking of adequate size.

(4) Chocks, wedges or blocking must be held securely in place by some means in addition to friction, so they cannot become unintentionally unfastened or loose while the vehicle is in transit.

(h) *Securement of stacked loads of paper rolls transported with the eyes lengthwise in a sided vehicle.* (1) Rolls must not be loaded in a higher layer if another roll will fit in the layer beneath.

(2) An upper layer must be formed by placing paper rolls in the wells formed by the rolls beneath.

(3) A roll in an upper layer must be secured against forward and rearward movement by any of the means allowed for the bottom layer, by use of a blocking roll, or by banding to other rolls.

(i) *Securement of paper rolls transported on a flatbed vehicle or in a curtain-sided vehicle*—(1) *Paper rolls with eyes vertical or with eyes lengthwise.*

(i) The paper rolls must be loaded and secured as described for a sided vehicle, and the entire load must be secured by tiedowns in accordance with the requirements of §§393.100 through 393.114.

(ii) Stacked loads of paper rolls with eyes vertical are prohibited.

(2) *Paper rolls with eyes crosswise.* (i) The paper rolls must be prevented from rolling or shifting longitudinally by contact with vehicle structure or other cargo, by chocks, wedges or blocking and bracing of adequate size, or by tiedowns.

(ii) Chocks, wedges or blocking must be held securely in place by some means in addition to friction so that they cannot become unintentionally unfastened or loose while the vehicle is in transit.

(iii) Tiedowns must be used in accordance with the requirements of §§393.100 through 393.114 to prevent lateral movement.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35834, June 22, 2006]

§ 393.124 What are the rules for securing concrete pipe?

[↑ top](#)

(a) *Applicability.* (1) The rules in this section apply to the transportation of concrete pipe on flatbed trailers and vehicles, and lowboy trailers.

(2) Concrete pipe bundled tightly together into a single rigid article that has no tendency to roll, and concrete pipe loaded in a sided vehicle or container must be secured in accordance with the provisions of §§393.100 through 393.114.

(b) *General specifications for tiedowns.* (1) The aggregate working load limit of all tiedowns on any group of pipes must not be less than half the total weight of all the pipes in the group.

(2) A transverse tiedown through a pipe on an upper tier or over longitudinal tiedowns is considered to secure all those pipes beneath on which that tiedown causes pressure.

(c) *Blocking.* (1) Blocking may be one or more pieces placed symmetrically about the center of a pipe.

(2) One piece must extend at least half the distance from the center to each end of the pipe, and two pieces must be placed on the opposite side, one at each end of the pipe.

(3) Blocking must be placed firmly against the pipe, and must be secured to prevent it moving out from under the pipe.

(4) Timber blocking must have minimum dimensions of at least 10 × 15 cm (4 × 6 in).

(d) *Arranging the load—*(1) *Pipe of different diameter.* If pipe of more than one diameter are loaded on a vehicle, groups must be formed that consist of pipe of only one size, and each group must be separately secured.

(2) *Arranging a bottom tier.* The bottom tier must be arranged to cover the full length of the vehicle, or as a partial tier in one group or two groups.

(3) *Arranging an upper tier.* Pipe must be placed only in the wells formed by adjacent pipes in the tier beneath. A third or higher tier must not be started unless all wells in the tier beneath are filled.

(4) *Arranging the top tier.* The top tier must be arranged as a complete tier, a partial tier in one group, or a partial tier in two groups.

(5) *Arranging bell pipe.* (i) Bell pipe must be loaded on at least two longitudinal spacers of sufficient height to ensure that the bell is clear of the deck.

(ii) Bell pipe loaded in one tier must have the bells alternating on opposite sides of the vehicle.

(iii) The ends of consecutive pipe must be staggered, if possible, within the allowable width, otherwise they must be aligned.

(iv) Bell pipe loaded in more than one tier must have the bells of the bottom tier all on the same side of the vehicle.

(v) Pipe in every upper tier must be loaded with bells on the opposite side of the vehicle to the bells of the tier below.

(vi) If the second tier is not complete, pipe in the bottom tier which do not support a pipe above must have their bells alternating on opposite sides of the vehicle.

(a) *Securing pipe with an inside diameter up to 1,143 mm (45 in).* In addition to the requirements of paragraphs (b), (c) and (d) of this section, the following rules must be satisfied:

(1) *Stabilizing the bottom tier.* (i) The bottom tier must be immobilized longitudinally at each end by blocking, vehicle end structure, stakes, a locked pipe unloader, or other equivalent means.

(ii) Other pipe in the bottom tier may also be held in place by blocks and/or wedges; and

(iii) Every pipe in the bottom tier must also be held firmly in contact with the adjacent pipe by tiedowns through the front and rear pipes:

(A) At least one tiedown through the front pipe of the bottom tier must run aft at an angle not more than 45 degrees with the horizontal, whenever practicable.

(B) At least one tiedown through the rear pipe of the bottom tier must run forward at an angle not more than 45 degrees with the horizontal, whenever practicable.

(2) *Use of tiedowns.* (i) Each pipe may be secured individually with tiedowns through the pipe.

(ii) If each pipe is not secured individually with a tiedown, then:

(A) Either one 1/2-inch diameter chain or wire rope, or two 3/8-inch diameter chain or wire rope, must be placed longitudinally over the group of pipes;

(B) One transverse tiedown must be used for every 3.04 m (10 ft) of load length. The transverse tiedowns may be placed through a pipe, or over both longitudinal tiedowns between two pipes on the top tier.

(C) If the first pipe of a group in the top tier is not placed in the first well formed by pipes at the front of the tier beneath, it must be secured by an additional tiedown that runs rearward at an angle not more than 45 degrees to the horizontal, whenever practicable. This tiedown must pass either through the front pipe of the upper tier, or outside it and over both longitudinal tiedowns; and

(D) If the last pipe of a group in the top tier is not placed in the last well formed by pipes at the rear of the tier beneath, it must be secured by an additional tiedown that runs forward at an angle not more than 45 degrees to the horizontal, whenever practicable. This tiedown must pass either through the rear pipe of the upper tier or outside it and over both longitudinal tiedowns.

(f) *Securing large pipe, with an inside diameter over 1143 mm (45 in).* In addition to the requirements of paragraphs (b), (c) and (d) of this section, the following rules must be satisfied:

(1) The front pipe and the rear pipe must be immobilized by blocking, wedges, vehicle end structure, stakes, locked pipe unloader, or other equivalent means.

(2) Each pipe must be secured by tiedowns through the pipe:

(i) At least one tiedown through each pipe in the front half of the load, which includes the middle one if there is an odd number, and must run rearward at an angle not more than 45 degrees with the horizontal, whenever practicable.

(ii) At least one tiedown through each pipe in the rear half of the load, and must run forward at an angle not more than 45 degrees with the horizontal, whenever practicable, to hold each pipe firmly in contact with adjacent pipe; and

(iii) If the front or rear pipe is not also in contact with vehicle end structure, stakes, a locked pipe unloader, or other equivalent means, at least two tiedowns positioned as described in paragraphs (f)(2)(i) and (ii) of this section, must be used through that pipe.

(3) If only one pipe is transported, or if several pipes are transported without contact between other pipes, the requirements in this paragraph apply to each pipe as a single front and rear article.

#### § 393.126 What are the rules for securing intermodal containers?

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(a) Applicability. The rules in this section apply to the transportation of intermodal containers. Cargo contained within an intermodal container must be secured in accordance with the provisions of §§393.100 through 393.114 or, if applicable, the commodity specific rules of this part.

(b) *Securement of intermodal containers transported on container chassis vehicle(s).* (1) All lower corners of the intermodal container must be secured to the container chassis with securement devices or integral locking devices that cannot unintentionally become unfastened while the vehicle is in transit.

(2) The securement devices must restrain the container from moving more than 1.27 cm (1/2 in) forward, more than 1.27 cm (1/2 in) aft, more than 1.27 cm (1/2 in) to the right, more than 1.27 cm (1/2 in) to the left, or more than 2.54 cm (1 in) vertically.

(3) The front and rear of the container must be secured independently.

(c) *Securement of loaded intermodal containers transported on vehicles other than container chassis vehicle(s).* (1) All lower corners of the intermodal container must rest upon the vehicle, or the corners must be supported by a structure capable of bearing the weight of the container and that support structure must be independently secured to the motor vehicle.

(2) Each container must be secured to the vehicle by:

(i) Chains, wire ropes or integral devices which are fixed to all lower corners; or

(ii) Crossed chains which are fixed to all upper corners; and,

(3) The front and rear of the container must be secured independently. Each chain, wire rope, or integral locking device must be attached to the container in a manner that prevents it from being unintentionally unfastened while the vehicle is in transit.

(d) *Securement of empty intermodal containers transported on vehicles other than container chassis vehicle(s).* Empty intermodal containers transported on vehicles other than container chassis vehicles do not have to have all lower corners of the intermodal container resting upon the vehicle, or have all lower corners supported by a structure capable of bearing the weight of the empty container, provided:

(1) The empty intermodal container is balanced and positioned on the vehicle in a manner such that the container is stable before the addition of tiedowns or other securement equipment; and,

(2) The amount of overhang for the empty container on the trailer does not exceed five feet on either the front or rear of the trailer;

(3) The empty intermodal container must not interfere with the vehicle's maneuverability; and,

(4) The empty intermodal container is secured to prevent lateral, longitudinal, or vertical shifting.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35834, June 22, 2006]

**§ 393.128 What are the rules for securing automobiles, light trucks and vans?**

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(a) *Applicability.* The rules in this section apply to the transportation of automobiles, light trucks, and vans which individually weigh 4,536 kg. (10,000 lb) or less. Vehicles which individually are heavier than 4,536 kg (10,000 lb) must be secured in accordance with the provisions of §393.130 of this part.

(b) *Securement of automobiles, light trucks, and vans.* (1) Automobiles, light trucks, and vans must be restrained at both the front and rear to prevent lateral, forward, rearward, and vertical movement using a minimum of two tiedowns.

(2) Tiedowns that are designed to be affixed to the structure of the automobile, light truck, or van must use the mounting points on those vehicles that have been specifically designed for that purpose.

(3) Tiedowns that are designed to fit over or around the wheels of an automobile, light truck, or van must provide restraint in the lateral, longitudinal and vertical directions.

(4) Edge protectors are not required for synthetic webbing at points where the webbing comes in contact with the tires.

**§ 393.130 What are the rules for securing heavy vehicles, equipment and machinery?**

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(a) *Applicability.* The rules in this section apply to the transportation of heavy vehicles, equipment and machinery which operate on wheels or tracks, such as front end loaders, bulldozers, tractors, and power shovels and which individually weigh 4,536 kg (10,000 lb.) or more. Vehicles, equipment and machinery which is lighter than 4,536 kg (10,000 lb.) may also be secured in accordance with the provisions of this section, with §393.128, or in accordance with the provisions of §§393.100 through 393.114.

(b) *Preparation of equipment being transported.* (1) Accessory equipment, such as hydraulic shovels, must be completely lowered and secured to the vehicle.

(2) Articulated vehicles shall be restrained in a manner that prevents articulation while in transit.

(c) *Securement of heavy vehicles, equipment or machinery with crawler tracks or wheels.*

(1) In addition to the requirements of paragraph (b) of this section, heavy equipment or machinery with crawler tracks or wheels must be restrained against movement in the lateral,

forward, rearward, and vertical direction using a minimum of four tiedowns.

(2) Each of the tiedowns must be affixed as close as practicable to the front and rear of the vehicle, or mounting points on the vehicle that have been specifically designed for that purpose.

**§ 393.132 What are the rules for securing flattened or crushed vehicles?**

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(a) *Applicability.* The rules in this section apply to the transportation of vehicles such as automobiles, light trucks, and vans that have been flattened or crushed.

(b) *Prohibition on the use of synthetic webbing.* The use of synthetic webbing to secure flattened or crushed vehicles is prohibited except that such webbing may be used to connect wire rope or chain to anchor points on the commercial motor vehicle. However, the webbing (regardless of whether edge protection is used) must not come into contact with the flattened or crushed cars.

(c) *Securement of flattened or crushed vehicles.* Flattened or crushed vehicles must be transported on vehicles which have:

(1) Containment walls or comparable means on four sides which extend to the full height of the load and which block against movement of the cargo in the forward, rearward and lateral directions; or

(2)(i) Containment walls or comparable means on three sides which extend to the full height of the load and which block against movement of the cargo in the direction for which there is a containment wall or comparable means, and

(ii) A minimum of two tiedowns are required per vehicle stack; or

(3)(i) Containment walls on two sides which extend to the full height of the load and which block against movement of the cargo in the forward and rearward directions, and

(ii) A minimum of three tiedowns are required per vehicle stack; or

(4) A minimum of four tiedowns per vehicle stack.

(5) In addition to the requirements of paragraphs (c)(2), (3), and (4), the following rules must be satisfied:

(i) Vehicles used to transport flattened or crushed vehicles must be equipped with a means to prevent liquids from leaking from the bottom of the vehicle, and loose parts from falling from the bottom and all four sides of the vehicle extending to the full height of the cargo.



(ii) The means used to contain loose parts may consist of structural walls, sides or sideboards, or suitable covering material, alone or in combinations.

(iii) The use of synthetic material for containment of loose parts is permitted.

[67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35834, June 22, 2006]

**§ 393.134 What are the rules for securing roll-on/roll-off or hook lift containers?**

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(a) *Applicability.* The rules in this section apply to the transportation of roll-on/roll-off or hook lift containers.

(b) *Securement of a roll-on/roll-off and hook lift container.* Each roll-on/roll-off and hook lift container carried on a vehicle which is not equipped with an integral securement system must be:

(1) Blocked against forward movement by the lifting device, stops, a combination of both or other suitable restraint mechanism;

(2) Secured to the front of the vehicle by the lifting device or other suitable restraint against lateral and vertical movement;

(3) Secured to the rear of the vehicle with at least one of the following mechanisms:

(i) One tiedown attached to both the vehicle chassis and the container chassis;

(ii) Two tiedowns installed lengthwise, each securing one side of the container to one of the vehicle's side rails; or

(iii) Two hooks, or an equivalent mechanism, securing both sides of the container to the vehicle chassis at least as effectively as the tiedowns in the two previous items.

(4) The mechanisms used to secure the rear end of a roll-on/roll off or hook lift container must be installed no more than two meters (6 ft 7 in) from the rear of the container.

(5) In the event that one or more of the front stops or lifting devices are missing, damaged or not compatible, additional manually installed tiedowns must be used to secure the container to the vehicle, providing the same level of securement as the missing, damaged or incompatible components.

**§ 393.136 What are the rules for securing large boulders?**

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(a) *Applicability.* (1) The rules in this section are applicable to the transportation of any large piece of natural, irregularly shaped rock weighing in excess of 5,000 kg (11,000 lb.) or with a volume in excess of 2 cubic-meters on an open vehicle, or in a vehicle whose sides are not designed and rated to contain such cargo.

(2) Pieces of rock weighing more than 100 kg (220 lb.), but less than 5,000 kg (11,000 lb.) must be secured, either in accordance with this section, or in accordance with the provisions of §§393.100 through 393.114, including:

(i) Rock contained within a vehicle which is designed to carry such cargo; or

(ii) Secured individually by tiedowns, provided each piece can be stabilized and adequately secured.

(3) Rock which has been formed or cut to a shape and which provides a stable base for securement must also be secured, either in accordance with the provisions of this section, or in accordance with the provisions of §§393.100 through 393.114.

(b) *General requirements for the positioning of boulders on the vehicle.* (1) Each boulder must be placed with its flattest and/or largest side down.

(2) Each boulder must be supported on at least two pieces of hard wood blocking at least 10 cm × 10 cm (4 inches × 4 inches) side dimensions extending the full width of the boulder.

(3) Hardwood blocking pieces must be placed as symmetrically as possible under the boulder and should support at least three-fourths of the length of the boulder.

(4) If the flattest side of a boulder is rounded or partially rounded, so that the boulder may roll, it must be placed in a crib made of hardwood timber fixed to the deck of the vehicle so that the boulder rests on both the deck and the timber, with at least three well-separated points of contact that prevent its tendency to roll in any direction.

(5) If a boulder is tapered, the narrowest end must point towards the front of the vehicle.

(c) *General tiedown requirements.* (1) Only chain may be used as tiedowns to secure large boulders.

(2) Tiedowns which are in direct contact with the boulder should, where possible, be located in valleys or notches across the top of the boulder, and must be arranged to prevent sliding across the rock surface.

(d) *Securement of a cubic shaped boulder.* In addition to the requirements of paragraphs (b) and (c) of this section, the following rules must be satisfied:

(1) Each boulder must be secured individually with at least two chain tiedowns placed

transversely across the vehicle.

(2) The aggregate working load limit of the tiedowns must be at least half the weight of the boulder.

(3) The tiedowns must be placed as closely as possible to the wood blocking used to support the boulder.

(e) *Securement of a non-cubic shaped boulder—with a stable base.* In addition to the requirements of paragraphs (b) and (c) of this section, the following rules must be satisfied:

(1) The boulder must be secured individually with at least two chain tiedowns forming an “X” pattern over the boulder.

(2) The aggregate working load limit of the tiedowns must be at least half the weight of the boulder.

(3) The tiedowns must pass over the center of the boulder and must be attached to each other at the intersection by a shackle or other connecting device.

(f) *Securement of a non-cubic shaped boulder—with an unstable base.* In addition to the requirements of paragraphs (b) and (c) of this section, each boulder must be secured by a combination of chain tiedowns as follows:

(1) One chain must surround the top of the boulder (at a point between one-half and two-thirds of its height). The working load limit of the chain must be at least half the weight of the boulder.

(2) Four chains must be attached to the surrounding chain and the vehicle to form a blocking mechanism which prevents any horizontal movement. Each chain must have a working load limit of at least one-fourth the weight of the boulder. Whenever practicable, the angle of the chains must not exceed 45 degrees from the horizontal.

#### **Subpart J—Frames, Cab and Body Components, Wheels, Steering, and Suspension Systems**

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**Source:** 53 FR 49402, Dec. 7, 1988, unless otherwise noted.

#### **§ 393.201 Frames.**

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(a) The frame or chassis of each commercial motor vehicle shall not be cracked, loose,

sagging or broken.

(b) Bolts or brackets securing the cab or the body of the vehicle to the frame must not be loose, broken, or missing.

(c) The frame rail flanges between the axles shall not be bent, cut or notched, except as specified by the manufacturer.

(d) Parts and accessories shall not be welded to the frame or chassis of a commercial motor vehicle except in accordance with the vehicle manufacturer's recommendations. Any welded repair of the frame must also be in accordance with the vehicle manufacturer's recommendations.

(e) No holes shall be drilled in the top or bottom rail flanges, except as specified by the manufacturer.

[53 FR 49402, Dec. 7, 1988, as amended at 70 FR 48055, Aug. 15, 2005]

**§ 393.203 Cab and body components.**

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(a) The cab compartment doors or door parts used as an entrance or exit shall not be missing or broken. Doors shall not sag so that they cannot be properly opened or closed. No door shall be wired shut or otherwise secured in the closed position so that it cannot be readily opened. Exception: When the vehicle is loaded with pipe or bar stock that blocks the door and the cab has a roof exit.

(b) Bolts or brackets securing the cab or the body of the vehicle to the frame shall not be loose, broken, or missing.

(c) The hood must be securely fastened.

(d) All seats must be securely mounted.

(e) The front bumper must not be missing, loosely attached, or protruding beyond the confines of the vehicle so as to create a hazard.

**§ 393.205 Wheels.**

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(a) Wheels and rims shall not be cracked or broken.

(b) Stud or bolt holes on the wheels shall shall not be elongated (out of round).

(c) Nuts or bolts shall not be missing or loose.

**§ 393.207 Suspension systems.**

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(a) *Axles.* No axle positioning part shall be cracked, broken, loose or missing. All axles must be in proper alignment.

(b) *Adjustable axles.* Adjustable axle assemblies shall not have locking pins missing or disengaged.

(c) *Leaf springs.* No leaf spring shall be cracked, broken, or missing nor shifted out of position.

(d) *Coil springs.* No coil spring shall be cracked or broken.

(e) *Torsion bar.* No torsion bar or torsion bar suspension shall be cracked or broken.

(f) *Air suspensions.* The air pressure regulator valve shall not allow air into the suspension system until at least 55 psi is in the braking system. The vehicle shall be level (not tilting to the left or right). Air leakage shall not be greater than 3 psi in a 5-minute time period when the vehicle's air pressure gauge shows normal operating pressure.

(g) *Air suspension exhaust controls.* The air suspension exhaust controls must not have the capability to exhaust air from the suspension system of one axle of a two-axle air suspension trailer unless the controls are either located on the trailer, or the power unit and trailer combination are not capable of traveling at a speed greater than 10 miles per hour while the air is exhausted from the suspension system. This paragraph shall not be construed to prohibit—

(1) Devices that could exhaust air from both axle systems simultaneously; or

(2) Lift axles on multi-axle units.

[53 FR 49402, Dec. 7, 1988, as amended at 70 FR 48055, Aug. 15, 2005]

**§ 393.209 Steering wheel systems.**

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(a) The steering wheel shall be secured and must not have any spokes cracked through or

missing.

(b) *Steering wheel lash.* (1) The steering wheel lash shall not exceed the following parameters:

Steering wheel diameter	Manual steering system	Power steering system
406 mm or less (16 inches or less).	51 mm (2 inches)....	108 mm (4 1/4 inches).
457 mm (18 inches).....	57 mm (2 1/4 inches).	121 mm (4 3/4 inches).
483 mm (19 inches).....	60 mm (2 3/8 inches).	127 mm (5 inches).
508 mm (20 inches).....	64 mm (2 1/2 inches).	133 mm (5 1/4 inches).
533 mm (21 inches).....	67 mm (2 5/8 inches).	140 mm (5 1/2 inches).
559 mm (22 inches).....	70 mm (2 3/4 inches).	146 mm (5 3/4 inches).

(2) For steering wheel diameters not listed in paragraph (b)(1) of this section the steering wheel lash shall not exceed 14 degrees angular rotation for manual steering systems, and 30 degrees angular rotation for power steering systems.

(c) *Steering column.* The steering column must be securely fastened.

(d) *Steering system.* Universal joints and ball-and-socket joints shall not be worn, faulty or repaired by welding. The steering gear box shall not have loose or missing mounting bolts or cracks in the gear box or mounting brackets. The pitman arm on the steering gear output shaft shall not be loose. Steering wheels shall turn freely through the limit of travel in both directions.

(e) *Power steering systems.* All components of the power system must be in operating condition. No parts shall be loose or broken. Belts shall not be frayed, cracked or slipping. The system shall not leak. The power steering system shall have sufficient fluid in the reservoir.

[53 FR 49402, Dec. 7, 1988, as amended at 70 FR 48055, Aug. 15, 2005]

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## Title 49: Transportation

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### PART 395—HOURS OF SERVICE OF DRIVERS

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**Authority:** 49 U.S.C. 504, 14122, 31133, 31136, and 31502; sec. 113, Pub. L. 103–311, 108 Stat. 1673, 1676; and 49 CFR 1.73.

**Source:** 33 FR 19758, Dec. 25, 1968, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 395 appear at 66 FR 49874, Oct. 1, 2001.

#### § 395.0 Rescission.

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Any regulations on hours of service of drivers in effect before April 28, 2003, which were amended or replaced by the final rule adopted on April 28, 2003 [69 FR 22456] are rescinded and not in effect.

70 FR 50071, Aug. 25, 2005]

#### § 395.1 Scope of rules in this part.

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(a) *General.* (1) The rules in this part apply to all motor carriers and drivers, except as provided in paragraphs (b) through (o) of this section.

(2) The exceptions from Federal requirements contained in paragraphs (l) through (n) do not preempt State laws and regulations governing the safe operation of commercial motor vehicles.

(b) *Adverse driving conditions.* (1) Except as provided in paragraph (h)(2) of this section, a driver who encounters adverse driving conditions, as defined in §395.2, and cannot, because of those conditions, safely complete the run within the maximum driving time permitted by §§395.3(a) or 395.5(a) may drive and be permitted or required to drive a commercial motor vehicle for not more than 2 additional hours in order to complete that run or to reach a place offering safety for the occupants of the commercial motor vehicle and security for the commercial motor vehicle and its cargo. However, that driver may not drive or be permitted to drive—

(i) For more than 13 hours in the aggregate following 10 consecutive hours off duty for drivers of property-carrying commercial motor vehicles;

(ii) After the end of the 14th hour since coming on duty following 10 consecutive hours off duty for drivers of property-carrying commercial motor vehicles;

(iii) For more than 12 hours in the aggregate following 8 consecutive hours off duty for drivers of passenger-carrying commercial motor vehicles; or

(iv) After he/she has been on duty 15 hours following 8 consecutive hours off duty for drivers of passenger-carrying commercial motor vehicles.

(2) *Emergency conditions.* In case of any emergency, a driver may complete his/her run without being in violation of the provisions of the regulations in this part, if such run reasonably could have been completed absent the emergency.

(c) *Driver-salesperson.* The provisions of §395.3(b) shall not apply to any driver-salesperson whose total driving time does not exceed 40 hours in any period of 7 consecutive days.

(d) *Oilfield operations.* (1) In the instance of drivers of commercial motor vehicles used exclusively in the transportation of oilfield equipment, including the stringing and picking up of pipe used in pipelines, and servicing of the field operations of the natural gas and oil industry, any period of 8 consecutive days may end with the beginning of any off-duty period of 24 or more successive hours.

(2) In the case of specially trained drivers of commercial motor vehicles which are specially constructed to service oil wells, on-duty time shall not include waiting time at a natural gas or oil well site; *provided*, that all such time shall be fully and accurately accounted for in records to be maintained by the motor carrier. Such records shall be made available upon request of the Federal Motor Carrier Safety Administration.

(e) *Short-haul operations—(1) 100 air-mile radius driver.* A driver is exempt from the requirements of §395.8 if:

(i) The driver operates within a 100 air-mile radius of the normal work reporting location;

(ii) The driver, except a driver-salesperson, returns to the work reporting location and is released from work within 12 consecutive hours;

(iii)(A) A property-carrying commercial motor vehicle driver has at least 10 consecutive hours off duty separating each 12 hours on duty;

(B) A passenger-carrying commercial motor vehicle driver has at least 8 consecutive hours off duty separating each 12 hours on duty;

(iv)(A) A property-carrying commercial motor vehicle driver does not exceed 11 hours maximum driving time following 10 consecutive hours off duty; or

(B) A passenger-carrying commercial motor vehicle driver does not exceed 10 hours maximum driving time following 8 consecutive hours off duty; and

(v) The motor carrier that employs the driver maintains and retains for a period of 6 months accurate and true time records showing:

(A) The time the driver reports for duty each day;



(B) The total number of hours the driver is on duty each day;

(C) The time the driver is released from duty each day; and

(D) The total time for the preceding 7 days in accordance with §395.8(j)(2) for drivers used for the first time or intermittently.

(2) *Operators of property-carrying commercial motor vehicles not requiring a commercial driver's license.* Except as provided in this paragraph, a driver is exempt from the requirements of §395.3 and §395.8 and ineligible to use the provisions of §395.1(e)(1), (g) and (o) if:

(i) The driver operates a property-carrying commercial motor vehicle for which a commercial driver's license is not required under part 383 of this subchapter;

(ii) The driver operates within a 150 air-mile radius of the location where the driver reports to and is released from work, *i.e.*, the normal work reporting location;

(iii) The driver returns to the normal work reporting location at the end of each duty tour;

(iv) The driver has at least 10 consecutive hours off duty separating each on-duty period;

(v) The driver does not drive more than 11 hours following at least 10 consecutive hours off duty;

(vi) The driver does not drive:

(A) After the 14th hour after coming on duty on 5 days of any period of 7 consecutive days; and

(B) After the 16th hour after coming on duty on 2 days of any period of 7 consecutive days;

(vii) The driver does not drive:

(A) After having been on duty for 60 hours in 7 consecutive days if the employing motor carrier does not operate commercial motor vehicles every day of the week;

(B) After having been on duty for 70 hours in 8 consecutive days if the employing motor carrier operates commercial motor vehicles every day of the week;

(viii) Any period of 7 or 8 consecutive days may end with the beginning of any off-duty period of 34 or more consecutive hours.

(ix) The motor carrier that employs the driver maintains and retains for a period of 6 months accurate and true time records showing:

(A) The time the driver reports for duty each day;

(B) The total number of hours the driver is on duty each day;

(C) The time the driver is released from duty each day;

(D) The total time for the preceding 7 days in accordance with §395.8(j)(2) for drivers used for the first time or intermittently.

(f) *Retail store deliveries.* The provisions of §395.3 (a) and (b) shall not apply with respect to drivers of commercial motor vehicles engaged solely in making local deliveries from retail stores and/or retail catalog businesses to the ultimate consumer, when driving solely within a 100-air mile radius of the driver's work-reporting location, during the period from December 10 to December 25, both inclusive, of each year.

(g) *Sleeper berths*—(1) *Property-carrying commercial motor vehicle*—(i) *In General*. A driver who operates a property-carrying commercial motor vehicle equipped with a sleeper berth, as defined in §§395.2 and 393.76 of this subchapter, (A) Must, before driving, accumulate

(1) At least 10 consecutive hours off duty;

(2) At least 10 consecutive hours of sleeper-berth time;

(3) A combination of consecutive sleeper-berth and off-duty time amounting to at least 10 hours; or

(4) The equivalent of at least 10 consecutive hours off duty if the driver does not comply with paragraph (g)(1)(i)(A)(1), (2), or (3) of this section;

(B) May not drive more than 11 hours following one of the 10-hour off-duty periods specified in paragraph (g)(1)(i)(A)(1) through (4) of this section; and

(C) May not drive after the 14th hour after coming on duty following one of the 10-hour off-duty periods specified in paragraph (g)(1)(i)(A)(1) through (4) of this section; and

(D) Must exclude from the calculation of the 14-hour limit any sleeper berth period of at least 8 but less than 10 consecutive hours.

(ii) *Specific requirements*.—The following rules apply in determining compliance with paragraph (g)(1)(i) of this section:

(A) The term “equivalent of at least 10 consecutive hours off duty” means a period of (1) At least 8 but less than 10 consecutive hours in a sleeper berth, and

(2) A separate period of at least 2 but less than 10 consecutive hours either in the sleeper berth or off duty, or any combination thereof.

(B) Calculation of the 11-hour driving limit includes all driving time; compliance must be re-calculated from the end of the first of the two periods used to comply with paragraph (g)(1)(ii)(A) of this section.

(C) Calculation of the 14-hour limit includes all time except any sleeper-berth period of at least 8 but less than 10 consecutive hours; compliance must be re-calculated from the end of the first of the two periods used to comply with the requirements of paragraph (g)(1)(ii)(A) of this section.

(2) *Specially trained driver of a specially constructed oil well servicing commercial motor vehicle at a natural gas or oil well location*. A specially trained driver who operates a commercial motor vehicle specially constructed to service natural gas or oil wells that is equipped with a sleeper berth, as defined in §§395.2 and 393.76 of this subchapter, or who is off duty at a natural gas or oil well location, may accumulate the equivalent of 10 consecutive hours off duty time by taking a combination of at least 10 consecutive hours of off-duty time, sleeper-berth time, or time in other sleeping accommodations at a natural gas or oil well location; or by taking two periods of rest in a sleeper berth, or other sleeping accommodation at a natural gas or oil well location, providing:

(i) Neither rest period is shorter than 2 hours;

(ii) The driving time in the period immediately before and after each rest period, when added together, does not exceed 11 hours;

(iii) The driver does not drive after the 14th hour after coming on duty following 10 hours off duty, where the 14th hour is calculated:

(A) By excluding any sleeper berth or other sleeping accommodation period of at least 2 hours which, when added to a subsequent sleeper berth or other sleeping accommodation period, totals at least 10 hours, and

(B) By including all on-duty time, all off-duty time not spent in the sleeper berth or other sleeping accommodations, all such periods of less than 2 hours, and any period not described in paragraph (g)(2)(iii)(A) of this section; and

(iv) The driver may not return to driving subject to the normal limits under §395.3 without taking at least 10 consecutive hours off duty, at least 10 consecutive hours in the sleeper berth or other sleeping accommodations, or a combination of at least 10 consecutive hours off duty, sleeper berth time, or time in other sleeping accommodations.

(3) Passenger-carrying commercial motor vehicles. A driver who is driving a passenger-carrying commercial motor vehicle that is equipped with a sleeper berth, as defined in §§395.2 and 393.76 of this subchapter, may accumulate the equivalent of 8 consecutive hours of off-duty time by taking a combination of at least 8 consecutive hours off-duty and sleeper berth time; or by taking two periods of rest in the sleeper berth, providing:

(h) *State of Alaska—(1) Property-carrying commercial motor vehicle.* The provisions of §395.3(a) and (b) do not apply to any driver who is driving a commercial motor vehicle in the State of Alaska. A driver who is driving a property-carrying commercial motor vehicle in the State of Alaska must not drive or be required or permitted to drive—

(i) More than 15 hours following 10 consecutive hours off duty; or

(ii) After being on duty for 20 hours or more following 10 consecutive hours off duty.

(iii) After having been on duty for 70 hours in any period of 7 consecutive days, if the motor carrier for which the driver drives does not operate every day in the week; or

(iv) After having been on duty for 80 hours in any period of 8 consecutive days, if the motor carrier for which the driver drives operates every day in the week.

(2) *Passenger-carrying commercial motor vehicle.* The provisions of §395.5 do not apply to any driver who is driving a passenger-carrying commercial motor vehicle in the State of Alaska. A driver who is driving a passenger-carrying commercial motor vehicle in the State of Alaska must not drive or be required or permitted to drive—

(i) More than 15 hours following 8 consecutive hours off duty;

(ii) After being on duty for 20 hours or more following 8 consecutive hours off duty;

(iii) After having been on duty for 70 hours in any period of 7 consecutive days, if the motor carrier for which the driver drives does not operate every day in the week; or

(iv) After having been on duty for 80 hours in any period of 8 consecutive days, if the motor carrier for which the driver drives operates every day in the week.

(3) A driver who is driving a commercial motor vehicle in the State of Alaska and who encounters adverse driving conditions (as defined in §395.2) may drive and be permitted or required to drive a commercial motor vehicle for the period of time needed to complete the run.

(i) After a property-carrying commercial motor vehicle driver completes the run, that driver must be off duty for at least 10 consecutive hours before he/she drives again; and

(ii) After a passenger-carrying commercial motor vehicle driver completes the run, that driver must be off duty for at least 8 consecutive hours before he/she drives again.

(i) *State of Hawaii.* The rules in §395.8 do not apply to a driver who drives a commercial motor vehicle in the State of Hawaii, if the motor carrier who employs the driver maintains and retains for a period of 6 months accurate and true records showing—

(1) The total number of hours the driver is on duty each day; and

(2) The time at which the driver reports for, and is released from, duty each day.

(j) *Travel time—(1)* When a property-carrying commercial motor vehicle driver at the direction of the motor carrier is traveling, but not driving or assuming any other responsibility to the carrier, such time must be counted as on-duty time unless the driver is afforded at least 10 consecutive hours off duty when arriving at destination, in which case he/she must be considered off duty for the entire period.

(2) When a passenger-carrying commercial motor vehicle driver at the direction of the motor carrier is traveling, but not driving or assuming any other responsibility to the carrier, such time must be counted as on-duty time unless the driver is afforded at least 8 consecutive hours off duty when arriving at destination, in which case he/she must be considered off duty for the entire period.

(k) *Agricultural operations.* The provisions of this part shall not apply to drivers transporting agricultural commodities or farm supplies for agricultural purposes in a State if such transportation:

(1) Is limited to an area within a 100 air-mile radius from the source of the commodities or the distribution point for the farm supplies, and

(2) Is conducted during the planting and harvesting seasons within such State, as determined by the State.

(l) *Ground water well drilling operations.* In the instance of a driver of a commercial motor vehicle who is used primarily in the transportation and operations of a ground water well drilling rig, any period of 7 or 8 consecutive days may end with the beginning of any off-duty period of 24 or more successive hours.

(m) *Construction materials and equipment.* In the instance of a driver of a commercial motor vehicle who is used primarily in the transportation of construction materials and equipment, any period of 7 or 8 consecutive days may end with the beginning of any off-duty period of 24 or more successive hours.

(n) *Utility service vehicles.* In the instance of a driver of a utility service vehicle, any period of 7 or 8 consecutive days may end with the beginning of any off-duty period of 24 or more successive hours.

(o) *Property-carrying driver.* A property-carrying driver is exempt from the requirements of §395.3(a)(2) if:

(1) The driver has returned to the driver's normal work reporting location and the carrier released the driver from duty at that location for the previous five duty tours the driver has worked;

(2) The driver has returned to the normal work reporting location and the carrier releases the driver from duty within 16 hours after coming on duty following 10 consecutive hours off duty; and

(3) The driver has not taken this exemption within the previous 6 consecutive days, except when the driver has begun a new 7- or 8-consecutive day period with the beginning of any off-duty period of 34 or more consecutive hours as allowed by §395.3(c).

[57 FR 33647, July 30, 1992, as amended at 58 FR 33777, June 21, 1993; 60 FR 38748, July 28, 1995; 61 FR 14679, Apr. 3, 1996; 63 FR 33279, June 18, 1998; 68 FR 22515, Apr. 28, 2003; 68 FR 56211, Sept. 30, 2003; 70 FR 50071, Aug. 25, 2005]

## § 395.2 Definitions.

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As used in this part, the following words and terms are construed to mean:

*Adverse driving conditions* means snow, sleet, fog, other adverse weather conditions, a highway covered with snow or ice, or unusual road and traffic conditions, none of which were apparent on the basis of information known to the person dispatching the run at the time it was begun.

*Automatic on-board recording device* means an electric, electronic, electromechanical, or mechanical device capable of recording driver's duty status information accurately and automatically as required by §395.15. The device must be integrally synchronized with specific operations of the commercial motor vehicle in which it is installed. At a minimum, the device must record engine use, road speed, miles driven, the date, and time of day.

*Driver-salesperson* means any employee who is employed solely as such by a private carrier of property by commercial motor vehicle, who is engaged both in selling goods, services, or the use of goods, and in delivering by commercial motor vehicle the goods sold or provided or upon which the services are performed, who does so entirely within a radius of 100 miles of the point at which he/she reports for duty, who devotes not more than 50 percent of his/her hours on duty to driving time. The term *selling goods* for purposes of this section shall include in all cases solicitation or obtaining of

reorders or new accounts, and may also include other selling or merchandising activities designed to retain the customer or to increase the sale of goods or services, in addition to solicitation or obtaining of reorders or new accounts.

*Driving time* means all time spent at the driving controls of a commercial motor vehicle in operation.

*Eight consecutive days* means the period of 8 consecutive days beginning on any day at the time designated by the motor carrier for a 24-hour period.

*Ground water well drilling rig* means any vehicle, machine, tractor, trailer, semi-trailer, or specialized mobile equipment propelled or drawn by mechanical power and used on highways to transport water well field operating equipment, including water well drilling and pump service rigs equipped to access ground water.

*Multiple stops* means all stops made in any one village, town, or city may be computed as one.

*On duty time* means all time from the time a driver begins to work or is required to be in readiness to work until the time the driver is relieved from work and all responsibility for performing work. *On duty time* shall include:

(1) All time at a plant, terminal, facility, or other property of a motor carrier or shipper, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the motor carrier;

(2) All time inspecting, servicing, or conditioning any commercial motor vehicle at any time;

(3) All driving time as defined in the term *driving time*;

(4) All time, other than *driving time*, in or upon any commercial motor vehicle except time spent resting in a *sleeper berth*;

(5) All time loading or unloading a commercial motor vehicle, supervising, or assisting in the loading or unloading, attending a commercial motor vehicle being loaded or unloaded, remaining in readiness to operate the commercial motor vehicle, or in giving or receiving receipts for shipments loaded or unloaded;

(6) All time repairing, obtaining assistance, or remaining in attendance upon a disabled commercial motor vehicle;

(7) All time spent providing a breath sample or urine specimen, including travel time to and from the collection site, in order to comply with the random, reasonable suspicion, post-accident, or follow-up testing required by part 382 of this subchapter when directed by a motor carrier;

(8) Performing any other work in the capacity, employ, or service of a motor carrier; and

(9) Performing any compensated work for a person who is not a motor carrier.

*Seven consecutive days* means the period of 7 consecutive days beginning on any day at the time designated by the motor carrier for a 24-hour period.

*Sleeper berth* means a berth conforming to the requirements of §393.76 of this chapter.

*Transportation of construction materials and equipment* means the transportation of construction and pavement materials, construction equipment, and construction maintenance vehicles, by a driver to or from an active construction site (a construction site between mobilization of equipment and materials to the site to the final completion of the construction project) within a 50 air mile radius of the normal work reporting location of the driver. This paragraph does not apply to the transportation of material found by the Secretary to be hazardous under 49 U.S.C. 5103 in a quantity requiring placarding under regulations issued to carry out such section.

*Twenty-four-hour period* means any 24-consecutive-hour period beginning at the time designated by the motor carrier for the terminal from which the driver is normally dispatched.

*Utility service vehicle* means any commercial motor vehicle:

(1) Used in the furtherance of repairing, maintaining, or operating any structures or any other physical facilities necessary for the delivery of public utility services, including the furnishing of electric, gas, water, sanitary sewer, telephone, and television cable or community antenna service;

(2) While engaged in any activity necessarily related to the ultimate delivery of such public utility services to consumers, including travel or movement to, from, upon, or between activity sites (including occasional travel or movement outside the service area necessitated by any utility emergency as determined by the utility provider); and

(3) Except for any occasional emergency use, operated primarily within the service area of a utility's subscribers or consumers, without regard to whether the vehicle is owned, leased, or rented by the utility.

[57 FR 33648, July 30, 1992, as amended at 59 FR 7515, Feb. 15, 1994; 59 FR 60324, Nov. 23, 1994; 60 FR 38748, July 28, 1995; 61 FR 14679, Apr. 3, 1996; 63 FR 33279, June 18, 1998]

### **§ 395.3 Maximum driving time for property-carrying vehicles.**

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Subject to the exceptions and exemptions in §395.1:

(a) No motor carrier shall permit or require any driver used by it to drive a property-carrying commercial motor vehicle, nor shall any such driver drive a property-carrying commercial motor vehicle:

(1) More than 11 cumulative hours following 10 consecutive hours off duty; or

(2) For any period after the end of the 14th hour after coming on duty following 10 consecutive hours off duty, except when a property-carrying driver complies with the provisions of §395.1(o) or §395.1(e)(2).

(b) No motor carrier shall permit or require a driver of a property-carrying commercial motor vehicle to drive, nor shall any driver drive a property-carrying commercial motor vehicle, regardless of the number of motor carriers using the driver's services, for any period after—

(1) Having been on duty 60 hours in any period of 7 consecutive days if the employing motor carrier does not operate commercial motor vehicles every day of the week; or

(2) Having been on duty 70 hours in any period of 8 consecutive days if the employing motor carrier operates commercial motor vehicles every day of the week.

(c)(1) Any period of 7 consecutive days may end with the beginning of any off-duty period of 34 or more consecutive hours; or

(2) Any period of 8 consecutive days may end with the beginning of any off-duty period of 34 or more consecutive hours.

[70 FR 50073, Aug. 25, 2005]

### **§ 395.5 Maximum driving time for passenger-carrying vehicles.**

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Subject to the exceptions and exemptions in §395.1:

(a) No motor carrier shall permit or require any driver used by it to drive a passenger-carrying commercial motor vehicle, nor shall any such driver drive a passenger-carrying commercial motor vehicle:

(1) More than 10 hours following 8 consecutive hours off duty; or

(2) For any period after having been on duty 15 hours following 8 consecutive hours off duty.

(b) No motor carrier shall permit or require a driver of a passenger-carrying commercial motor vehicle to drive, nor shall any driver drive a passenger-carrying commercial motor vehicle, regardless of the number of motor carriers using the driver's services, for any period after—

(1) Having been on duty 60 hours in any 7 consecutive days if the employing motor carrier does not operate commercial motor vehicles every day of the week; or

(2) Having been on duty 70 hours in any period of 8 consecutive days if the employing motor carrier operates commercial motor vehicles every day of the week.

[70 FR 50073, Aug. 25, 2005]

### § 395.7 [Reserved]

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### § 395.8 Driver's record of duty status.

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(a) Except for a private motor carrier of passengers (nonbusiness), every motor carrier shall require every driver used by the motor carrier to record his/her duty status for each 24 hour period using the methods prescribed in either paragraph (a)(1) or (2) of this section.

(1) Every driver who operates a commercial motor vehicle shall record his/her duty status, in duplicate, for each 24-hour period. The duty status time shall be recorded on a specified grid, as shown in paragraph (g) of this section. The grid and the requirements of paragraph (d) of this section may be combined with any company forms. The previously approved format of the Daily Log, Form MCS-59 or the Multi-day Log, MCS-139 and 139A, which meets the requirements of this section, may continue to be used.

(2) Every driver who operates a commercial motor vehicle shall record his/her duty status by using an automatic on-board recording device that meets the requirements of §395.15 of this part. The requirements of §395.8 shall not apply, except paragraphs (e) and (k) (1) and (2) of this section.

(b) The duty status shall be recorded as follows:

(1) "Off duty" or "OFF."

(2) "Sleeper berth" or "SB" (only if a sleeper berth used).

(3) "Driving" or "D."

(4) "On-duty not driving" or "ON."

(c) For each change of duty status (e.g., the place of reporting for work, starting to drive, on-duty not driving and where released from work), the name of the city, town, or village, with State abbreviation, shall be recorded.

Note: If a change of duty status occurs at a location other than a city, town, or village, show one of the following: (1) The highway number and nearest milepost followed by the name of the nearest city, town, or village and State abbreviation, (2) the highway number and the name of the service plaza followed by the name of the nearest city, town, or village and State abbreviation, or (3) the highway numbers of the nearest two intersecting roadways followed by the name of the nearest city, town, or village and State abbreviation.

(d) The following information must be included on the form in addition to the grid:

(1) Date;

(2) Total miles driving today;

(3) Truck or tractor and trailer number;

- (4) Name of carrier;
- (5) Driver's signature/certification;
- (6) 24-hour period starting time (e.g. midnight, 9:00 a.m., noon, 3:00 p.m.);
- (7) Main office address;
- (8) Remarks;
- (9) Name of co-driver;
- (10) Total hours (far right edge of grid);
- (11) Shipping document number(s), or name of shipper and commodity;

(e) Failure to complete the record of duty activities of this section or §395.15, failure to preserve a record of such duty activities, or making of false reports in connection with such duty activities shall make the driver and/or the carrier liable to prosecution.

(f) The driver's activities shall be recorded in accordance with the following provisions:

(1) *Entries to be current.* Drivers shall keep their records of duty status current to the time shown for the last change of duty status.

(2) *Entries made by driver only.* All entries relating to driver's duty status must be legible and in the driver's own handwriting.

(3) *Date.* The month, day and year for the beginning of each 24-hour period shall be shown on the form containing the driver's duty status record.

(4) *Total miles driving today.* Total mileage driven during the 24-hour period shall be recorded on the form containing the driver's duty status record.

(5) *Commercial motor vehicle identification.* The driver shall show the number assigned by the motor carrier, or the license number and licensing State of each commercial motor vehicle operated during each 24-hour period on his/her record of duty status. The driver of an articulated (combination) commercial motor vehicle shall show the number assigned by the motor carrier, or the license number and licensing State of each motor vehicle used in each commercial motor vehicle combination operated during that 24-hour period on his/her record of duty status.

(6) *Name of motor carrier.* The name(s) of the motor carrier(s) for which work is performed shall be shown on the form containing the driver's record of duty status. When work is performed for more than one motor carrier during the same 24-hour period, the beginning and finishing time, showing a.m. or p.m., worked for each motor carrier shall be shown after each motor carrier's name. Drivers of leased commercial motor vehicles shall show the name of the motor carrier performing the transportation.

(7) *Signature/certification.* The driver shall certify to the correctness of all entries by signing the form containing the driver's duty status record with his/her legal name or name of record. The driver's signature certifies that all entries required by this section made by the driver are true and correct.

(8) *Time base to be used.* (i) The driver's duty status record shall be prepared, maintained, and submitted using the time standard in effect at the driver's home terminal, for a 24-hour period beginning with the time specified by the motor carrier for that driver's home terminal.

(ii) The term "7 or 8 consecutive days" means the 7 or 8 consecutive 24-hour periods as designated by the carrier for the driver's home terminal.

(iii) The 24-hour period starting time must be identified on the driver's duty status record. One-hour increments must appear on the graph, be identified, and preprinted. The words "Midnight" and "Noon" must appear above or beside the appropriate one-hour increment.



(9) *Main office address.* The motor carrier's main office address shall be shown on the form containing the driver's duty status record.

(10) *Recording days off duty.* Two or more consecutive 24-hour periods off duty may be recorded on one duty status record.

(11) *Total hours.* The total hours in each duty status: ff duty other than in a sleeper berth; off duty in a sleeper berth; driving, and on duty not driving, shall be entered to the right of the grid, the total of such entries shall equal 24 hours.

(12) *Shipping document number(s) or name of shipper and commodity* shall be shown on the driver's record of duty status.

(g) *Graph grid.* The following graph grid must be incorporated into a motor carrier recordkeeping system which must also contain the information required in paragraph (d) of this section.

The image shows two versions of a graph grid used for recording duty status. The first is labeled "Graph Grid - Horizontally" and the second is labeled "Graph Grid - Vertically". Both grids consist of a large rectangular area on the left for "REMARKS" and a grid of smaller boxes on the right for recording time intervals. The horizontal grid has columns for "OFF DUTY", "SLEEPER BERTH", "DRIVING", and "ON DUTY NOT DRIVING". The vertical grid has columns for "ON DUTY", "SLEEPER BERTH", "DRIVING", and "OFF DUTY".

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(h) *Graph grid preparation.* The graph grid may be used horizontally or vertically and shall be completed as follows:

(1) *Off duty.* Except for time spent resting in a sleeper berth, a continuous line shall be drawn between the appropriate time markers to record the period(s) of time when the driver is not on duty, is not required to be in readiness to work, or is not under any responsibility for performing work.

(2) *Sleeper berth.* A continuous line shall be drawn between the appropriate time markers to record the period(s) of time off duty resting in a sleeper berth, as defined in §395.2. (If a non-sleeper berth operation, sleeper berth need not be shown on the grid.)

(3) *Driving.* A continuous line shall be drawn between the appropriate time markers to record the period(s) of driving time, as defined in §395.2.

(4) *On duty not driving.* A continuous line shall be drawn between the appropriate time markers to record the period(s) of time on duty not driving specified in §395.2.

(5) *Location—remarks.* The name of the city, town, or village, with State abbreviation where each change of duty status occurs shall be recorded.

Note: If a change of duty status occurs at a location other than a city, town, or village, show one of the following: (1) The highway number and nearest milepost followed by the name of the nearest city, town, or village and State abbreviation, (2) the highway number and the name of the service plaza followed by the name of the nearest city, town, or village and State abbreviation, or (3) the highway numbers of the nearest two intersecting roadways followed by the name of the nearest city, town, or village and State abbreviation.

(i) *Filing driver's record of duty status.* The driver shall submit or forward by mail the original driver's record of duty status to the regular employing motor carrier within 13 days following the completion of the form.

(j) *Drivers used by more than one motor carrier.* (1) When the services of a driver are used by more than one motor carrier during any 24-hour period in effect at the driver's home terminal, the driver shall submit a copy of the record of duty status to each motor carrier. The record shall include:

- (i) All duty time for the entire 24-hour period;
- (ii) The name of each motor carrier served by the driver during that period; and
- (iii) The beginning and finishing time, including a.m. or p.m., worked for each carrier.

(2) Motor carriers, when using a driver for the first time or intermittently, shall obtain from the driver a signed statement giving the total time on duty during the immediately preceding 7 days and the time at which the driver was last relieved from duty prior to beginning work for the motor carriers.

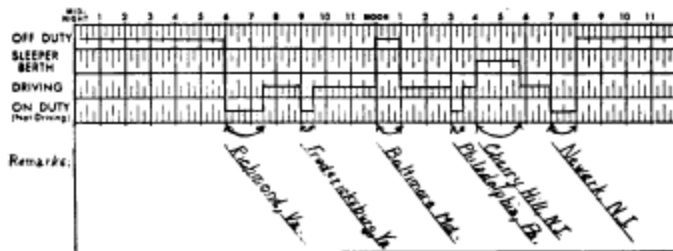
(k) *Retention of driver's record of duty status.* (1) Each motor carrier shall maintain records of duty status and all supporting documents for each driver it employs for a period of six months from the date of receipt.

(2) The driver shall retain a copy of each record of duty status for the previous 7 consecutive days which shall be in his/her possession and available for inspection while on duty.

Note: Driver's Record of Duty Status.

The graph grid, when incorporated as part of any form used by a motor carrier, must be of sufficient size to be legible.

The following executed specimen grid illustrates how a driver's duty status should be recorded for a trip from Richmond, Virginia, to Newark, New Jersey. The grid reflects the midnight to midnight 24 hour period.



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*Graph Grid (Midnight to Midnight Operation)*

The driver in this instance reported for duty at the motor carrier's terminal. The driver reported for work at 6 a.m., helped load, checked with dispatch, made a pretrip inspection, and performed other duties until 7:30 a.m. when the driver began driving. At 9 a.m. the driver had a minor accident in Fredericksburg, Virginia, and spent one half hour handling details with the local police. The driver arrived at the company's Baltimore, Maryland, terminal at noon and went to lunch while

minor repairs were made to the tractor. At 1 p.m. the driver resumed the trip and made a delivery in Philadelphia, Pennsylvania, between 3 p.m. and 3:30 p.m. at which time the driver started driving again. Upon arrival at Cherry Hill, New Jersey, at 4 p.m., the driver entered the sleeper berth for a rest break until 5:45 p.m. at which time the driver resumed driving again. At 7 p.m. the driver arrived at the company's terminal in Newark, New Jersey. Between 7 p.m. and 8 p.m. the driver prepared the required paperwork including completing the driver's record of duty status, driver vehicle inspection report, insurance report for the Fredericksburg, Virginia accident, checked for the next day's dispatch, etc. At 8 p.m., the driver went off duty.

(Approved by the Office of Management and Budget under control number 2125-0016)

[47 FR 53389, Nov. 26, 1982, as amended at 49 FR 38290, Sept. 28, 1984; 49 FR 46147, Nov. 23, 1984; 51 FR 12622, Apr. 14, 1986; 52 FR 41721, Oct. 30, 1987; 53 FR 18058, May 19, 1988; 53 FR 38670, Sept. 30, 1988; 57 FR 33649, July 30, 1992; 58 FR 33777, June 21, 1993; 59 FR 8753, Feb. 23, 1994; 60 FR 38748, July 28, 1995; 62 FR 16709, Apr. 8, 1997; 63 FR 33279, June 18, 1998]

## §§ 395.10-395.12 [Reserved]

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## § 395.13 Drivers declared out of service.

[↑ top](#)

(a) *Authority to declare drivers out of service.* Every special agent of the Federal Motor Carrier Safety Administration (as defined in appendix B to this subchapter) is authorized to declare a driver out of service and to notify the motor carrier of that declaration, upon finding at the time and place of examination that the driver has violated the out of service criteria as set forth in paragraph (b) of this section.

(b) *Out of service criteria.* (1) No driver shall drive after being on duty in excess of the maximum periods permitted by this part.

(2) No driver required to maintain a record of duty status under §395.8 or §395.15 of this part shall fail to have a record of duty status current on the day of examination and for the prior seven consecutive days.

(3) *Exception.* A driver failing only to have possession of a record of duty status current on the day of examination and the prior day, but has completed records of duty status up to that time (previous 6 days), will be given the opportunity to make the duty status record current.

(c) *Responsibilities of motor carriers.* (1) No motor carrier shall:

(i) Require or permit a driver who has been declared out of service to operate a commercial motor vehicle until that driver may lawfully do so under the rules in this part.

(ii) Require a driver who has been declared out of service for failure to prepare a record of duty status to operate a commercial motor vehicle until that driver has been off duty for the appropriate number of consecutive hours required by this part and is in compliance with this section. The appropriate consecutive hours off-duty may include sleeper berth time.

(2) A motor carrier shall complete the "Motor Carrier Certification of Action Taken" portion of the form MCS-63 (Driver-Vehicle Examination Report) and deliver the copy of the form either personally or by mail to the Division Administrator or State Director Federal Motor Carrier Safety Administration, at the address specified upon the form within 15 days following the date of examination. If the motor carrier mails the form, delivery is made on the date it is postmarked.

(d) *Responsibilities of the driver.* (1) No driver who has been declared out of service shall operate a commercial motor vehicle until that driver may lawfully do so under the rules of this part.

(2) No driver who has been declared out of service, for failing to prepare a record of duty status, shall operate a commercial motor vehicle until the driver has been off duty for the appropriate number of consecutive hours required by this part and is in compliance with this section.

(3) A driver to whom a form has been tendered declaring the driver out of service shall within 24 hours thereafter deliver or mail the copy to a person or place designated by motor carrier to receive it.

(4) Section 395.13 does not alter the hazardous materials requirements prescribed in §397.5 pertaining to attendance and surveillance of commercial motor vehicles.

[44 FR 34963, June 18, 1979, as amended at 47 FR 53392, Nov. 26, 1982; 51 FR 12622, Apr. 14, 1986; 53 FR 18058, May 19, 1988; 53 FR 38670, Sept. 30, 1988; 53 FR 47544, Nov. 23, 1988; 60 FR 38748, July 28, 1995; 68 FR 22516, Apr. 28, 2003; 70 FR 50073, Aug. 25, 2005]

### **§ 395.15 Automatic on-board recording devices.**

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(a) *Authority to use automatic on-board recording device.* (1) A motor carrier may require a driver to use an automatic on-board recording device to record the driver's hours of service in lieu of complying with the requirements of §395.8 of this part.

(2) Every driver required by a motor carrier to use an automatic on-board recording device shall use such device to record the driver's hours of service.

(b) *Information requirements.* (1) Automatic on-board recording devices shall produce, upon demand, a driver's hours of service chart, electronic display, or printout showing the time and sequence of duty status changes including the drivers' starting time at the beginning of each day.

(2) The device shall provide a means whereby authorized Federal, State, or local officials can immediately check the status of a driver's hours of service. This information may be used in conjunction with handwritten or printed records of duty status, for the previous 7 days.

(3) Support systems used in conjunction with on-board recorders at a driver's home terminal or the motor carrier's principal place of business must be capable of providing authorized Federal, State or local officials with summaries of an individual driver's hours of service records, including the information specified in §395.8(d) of this part. The support systems must also provide information concerning on-board system sensor failures and identification of edited data. Such support systems should meet the information interchange requirements of the American National Standard Code for Information Interchange (ANSI) (EIA RS-232/CCITT V.24 port (National Bureau of Standards "Code for Information Interchange," FIPS PUB 1-1)).

(4) The driver shall have in his/her possession records of duty status for the previous 7 consecutive days available for inspection while on duty. These records shall consist of information stored in and retrievable from the automatic on-board recording device, handwritten records, computer generated records, or any combination thereof.

(5) All hard copies of the driver's record of duty status must be signed by the driver. The driver's signature certifies that the information contained thereon is true and correct.

(c) The duty status and additional information shall be recorded as follows:

(1) "Off duty" or "OFF", or by an identifiable code or character;

(2) "Sleeper berth" or "SB" or by an identifiable code or character (only if the sleeper berth is used);

(3) "Driving" or "D", or by an identifiable code or character; and

(4) "On-duty not driving" or "ON", or by an identifiable code or character.

(5) Date;

- (6) Total miles driving today;
- (7) Truck or tractor and trailer number;
- (8) Name of carrier;
- (9) Main office address;
- (10) 24-hour period starting time (e.g., midnight, 9:00 a.m., noon, 3:00 p.m.)
- (11) Name of co-driver;
- (12) Total hours; and
- (13) Shipping document number(s), or name of shipper and commodity.

(d) *Location of duty status change.* (1) For each change of duty status (e.g., the place and time of reporting for work, starting to drive, on-duty not driving and where released from work), the name of the city, town, or village, with State abbreviation, shall be recorded.

(2) Motor carriers are permitted to use location codes in lieu of the requirements of paragraph (d)(1) of this section. A list of such codes showing all possible location identifiers shall be carried in the cab of the commercial motor vehicle and available at the motor carrier's principal place of business. Such lists shall be made available to an enforcement official on request.

(e) *Entries made by driver only.* If a driver is required to make written entries relating to the driver's duty status, such entries must be legible and in the driver's own handwriting.

(f) *Reconstruction of records of duty status.* Drivers are required to note any failure of automatic on-board recording devices, and to reconstruct the driver's record of duty status for the current day, and the past 7 days, less any days for which the drivers have records, and to continue to prepare a handwritten record of all subsequent duty status until the device is again operational.

(g) *On-board information.* Each commercial motor vehicle must have on-board the commercial motor vehicle an information packet containing the following items:

- (1) An instruction sheet describing in detail how data may be stored and retrieved from an automatic on-board recording system; and
- (2) A supply of blank driver's records of duty status graph-grids sufficient to record the driver's duty status and other related information for the duration of the current trip.

(h) *Submission of driver's record of duty status.* (1) The driver shall submit, electronically or by mail, to the employing motor carrier, each record of the driver's duty status within 13 days following the completion of each record;

(2) The driver shall review and verify that all entries are accurate prior to submission to the employing motor carrier; and

(3) The submission of the record of duty status certifies that all entries made by the driver are true and correct.

(i) *Performance of recorders.* Motor carriers that use automatic on-board recording devices for recording their drivers' records of duty status in lieu of the handwritten record shall ensure that:

(1) A certificate is obtained from the manufacturer certifying that the design of the automatic on-board recorder has been sufficiently tested to meet the requirements of this section and under the conditions it will be used;

(2) The automatic on-board recording device permits duty status to be updated only when the commercial motor vehicle is at rest, except when registering the time a commercial motor vehicle crosses a State boundary;

(3) The automatic on-board recording device and associated support systems are, to the maximum extent practicable, tamperproof and do not permit altering of the information collected concerning the driver's hours of service;

(4) The automatic on-board recording device warns the driver visually and/or audibly that the device has ceased to function. Devices installed and operational as of October 31, 1988, and authorized to be used in lieu of the handwritten record of duty status by the FMCSA are exempted from this requirement.

(5) Automatic on-board recording devices with electronic displays shall have the capability of displaying the following:

(i) Driver's total hours of driving today;

(ii) The total hours on duty today;

(iii) Total miles driving today;

(iv) Total hours on duty for the 7 consecutive day period, including today;

(v) Total hours on duty for the prior 8 consecutive day period, including the present day; and

(vi) The sequential changes in duty status and the times the changes occurred for each driver using the device.

(6) The on-board recorder is capable of recording separately each driver's duty status when there is a multiple-driver operation;

(7) The on-board recording device/system identifies sensor failures and edited data when reproduced in printed form. Devices installed and operational as of October 31, 1988, and authorized to be used in lieu of the handwritten record of duty status by the FMCSA are exempted from this requirement.

(8) The on-board recording device is maintained and recalibrated in accordance with the manufacturer's specifications;

(9) The motor carrier's drivers are adequately trained regarding the proper operation of the device; and

(10) The motor carrier must maintain a second copy (back-up copy) of the electronic hours-of-service files, by month, in a different physical location than where the original data is stored.

(j) *Rescission of authority.* (1) The FMCSA may, after notice and opportunity to reply, order any motor carrier or driver to comply with the requirements of §395.8 of this part.

(2) The FMCSA may issue such an order if the FMCSA has determined that—

(i) The motor carrier has been issued a conditional or unsatisfactory safety rating by the FMCSA;

(ii) The motor carrier has required or permitted a driver to establish, or the driver has established, a pattern of exceeding the hours of service limitations of this part;

(iii) The motor carrier has required or permitted a driver to fail, or the driver has failed, to accurately and completely record the driver's hours of service as required in this section; or

(iv) The motor carrier or driver has tampered with or otherwise abused the automatic on-board recording device on any commercial motor vehicle.

[53 FR 38670, Sept. 30, 1988, as amended at 60 FR 38748, July 28, 1995; 68 FR 22516, Apr. 28, 2003; 70 FR 50073, Aug. 25, 2005]

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### PART 396—INSPECTION, REPAIR, AND MAINTENANCE

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**Authority:** 49 U.S.C. 31133, 31136, and 31502; and 49 CFR 1.73.

**Source:** 44 FR 38526, July 2, 1979, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 396 appear at 66 FR 49874, Oct. 1, 2001.

#### § 396.1 Scope.

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*General*—Every motor carrier, its officers, drivers, agents, representatives, and employees directly concerned with the inspection or maintenance of motor vehicles shall comply and be conversant with the rules of this part.

[44 FR 38526, July 2, 1979, as amended at 53 FR 18058, May 19, 1988]

#### § 396.3 Inspection, repair, and maintenance.

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(a) *General*. Every motor carrier shall systematically inspect, repair, and maintain, or cause to be systematically inspected, repaired, and maintained, all motor vehicles subject to its control.

(1) Parts and accessories shall be in safe and proper operating condition at all times. These include those specified in part 393 of this subchapter and any additional parts and accessories which may affect safety of operation, including but not limited to, frame and frame assemblies, suspension systems, axles and attaching parts, wheels and rims, and steering systems.

(2) Pushout windows, emergency doors, and emergency door marking lights in buses shall be inspected at least every 90 days.

(b) *Required records*—For vehicles controlled for 30 consecutive days or more, except for a private motor carrier of passengers (nonbusiness), the motor carriers shall maintain, or cause to be maintained, the following record for each vehicle:

(1) An identification of the vehicle including company number, if so marked, make, serial number, year, and tire size. In addition, if the motor vehicle is not owned by the motor carrier, the record shall identify the name of the person furnishing the vehicle;

(2) A means to indicate the nature and due date of the various inspection and maintenance operations to be performed;

(3) A record of inspection, repairs, and maintenance indicating their date and nature; and

(4) A record of tests conducted on pushout windows, emergency doors, and emergency door marking lights on buses.

(c) *Record retention*. The records required by this section shall be retained where the vehicle is either housed or maintained for a period of 1 year and for 6 months after the motor vehicle leaves the motor carrier's control.

[44 FR 38526, July 2, 1979, as amended at 48 FR 55868, Dec. 16, 1983; 53 FR 18058, May 19, 1988; 59 FR 8753, Feb. 23, 1994; 59 FR 60324, Nov. 23, 1994]

### **§ 396.5 Lubrication.**

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Every motor carrier shall ensure that each motor vehicle subject to its control is—

(a) Properly lubricated; and

(b) Free of oil and grease leaks.

### **§ 396.7 Unsafe operations forbidden.**

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(a) *General*. A motor vehicle shall not be operated in such a condition as to likely cause an accident or a breakdown of the vehicle.

(b) *Exemption*. Any motor vehicle discovered to be in an unsafe condition while being operated on the highway may be continued in operation only to the nearest place where repairs can safely be effected. Such operation shall be conducted only if it is less hazardous to the public than to permit the vehicle to remain on the highway.

### **§ 396.9 Inspection of motor vehicles in operation.**

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(a) *Personnel authorized to perform inspections*. Every special agent of the FMCSA (as defined in appendix B to this subchapter) is authorized to enter upon and perform inspections of motor carrier's vehicles in operation.



(b) *Prescribed inspection report.* The Driver Vehicle Examination Report shall be used to record results of motor vehicle inspections conducted by authorized FMCSA personnel.

(c) *Motor vehicles declared "out of service."* (1) Authorized personnel shall declare and mark "out of service" any motor vehicle which by reason of its mechanical condition or loading would likely cause an accident or a breakdown. An "Out of Service Vehicle" sticker shall be used to mark vehicles "out of service."

(2) No motor carrier shall require or permit any person to operate nor shall any person operate any motor vehicle declared and marked "out of service" until all repairs required by the "out of service notice" have been satisfactorily completed. The term "operate" as used in this section shall include towing the vehicle, except that vehicles marked "out of service" may be towed away by means of a vehicle using a crane or hoist. A vehicle combination consisting of an emergency towing vehicle and an "out of service" vehicle shall not be operated unless such combination meets the performance requirements of this subchapter except for those conditions noted on the Driver Equipment Compliance Check.

(3) No person shall remove the "Out of Service Vehicle" sticker from any motor vehicle prior to completion of all repairs required by the "out of service notice".

(d) *Motor carrier disposition.* (1) The driver of any motor vehicle receiving an inspection report shall deliver it to the motor carrier operating the vehicle upon his/her arrival at the next terminal or facility. If the driver is not scheduled to arrive at a terminal or facility of the motor carrier operating the vehicle within 24 hours, the driver shall immediately mail the report to the motor carrier.

(2) Motor carriers shall examine the report. Violations or defects noted thereon shall be corrected.

(3) Within 15 days following the date of the inspection, the motor carrier shall—

(i) Certify that all violations noted have been corrected by completing the "Signature of Carrier Official, Title, and Date Signed" portions of the form; and

(ii) Return the completed roadside inspection form to the issuing agency at the address indicated on the form and retain a copy at the motor carrier's principal place of business or where the vehicle is housed for 12 months from the date of the inspection.

(49 U.S.C. 3102; 49 CFR 1.48(b))

[44 FR 38526, July 2, 1979, as amended at 49 FR 38290, Sept. 28, 1984; 57 FR 40964, Sept. 8, 1992; 68 FR 56208, Sept. 30, 2003]

### **§ 396.11 Driver vehicle inspection report(s).**

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(a) *Report required.* Every motor carrier shall require its drivers to report, and every driver shall prepare a report in writing at the completion of each day's work on each vehicle operated and the report shall cover at least the following parts and accessories:

—Service brakes including trailer brake connections

—Parking (hand) brake

—Steering mechanism

—Lighting devices and reflectors

—Tires

—Horn

- Windshield wipers
- Rear vision mirrors
- Coupling devices
- Wheels and rims
- Emergency equipment

(b) *Report content.* The report shall identify the vehicle and list any defect or deficiency discovered by or reported to the driver which would affect the safety of operation of the vehicle or result in its mechanical breakdown. If no defect or deficiency is discovered by or reported to the driver, the report shall so indicate. In all instances, the driver shall sign the report. On two-driver operations, only one driver needs to sign the driver vehicle inspection report, provided both drivers agree as to the defects or deficiencies identified. If a driver operates more than one vehicle during the day, a report shall be prepared for each vehicle operated.

(c) *Corrective action.* Prior to requiring or permitting a driver to operate a vehicle, every motor carrier or its agent shall repair any defect or deficiency listed on the driver vehicle inspection report which would be likely to affect the safety of operation of the vehicle.

(1) Every motor carrier or its agent shall certify on the original driver vehicle inspection report which lists any defect or deficiency that the defect or deficiency has been repaired or that repair is unnecessary before the vehicle is operated again.

(2) Every motor carrier shall maintain the original driver vehicle inspection report, the certification of repairs, and the certification of the driver's review for three months from the date the written report was prepared.

(d) *Exceptions.* The rules in this section shall not apply to a private motor carrier of passengers (nonbusiness), a driveaway-towaway operation, or any motor carrier operating only one commercial motor vehicle.

[44 FR 38526, July 2, 1979, as amended at 45 FR 46425, July 10, 1980; 53 FR 18058, May 19, 1988; 59 FR 8753, Feb. 23, 1994; 63 FR 33279, June 18, 1998]

### **§ 396.13 Driver inspection.**

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Before driving a motor vehicle, the driver shall:

- (a) Be satisfied that the motor vehicle is in safe operating condition;
- (b) Review the last driver vehicle inspection report; and
- (c) Sign the report, only if defects or deficiencies were noted by the driver who prepared the report, to acknowledge that the driver has reviewed it and that there is a certification that the required repairs have been performed. The signature requirement does not apply to listed defects on a towed unit which is no longer part of the vehicle combination.

[44 FR 76526, Dec. 27, 1979, as amended at 48 FR 55868, Dec. 16, 1983; 63 FR 33280, June 18, 1998]

### **§ 396.15 Driveaway-towaway operations and inspections.**

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(a) *General.* Effective December 7, 1989, every motor carrier, with respect to motor vehicles engaged in driveaway-towaway operations, shall comply with the requirements of this part. Exception: Maintenance records required by §396.3,

the vehicle inspection report required by §396.11, and the periodic inspection required by §396.17 of this part shall not be required for any vehicle which is part of the shipment being delivered.

(b) *Pre-trip inspection.* Before the beginning of any driveaway-towaway operation of motor vehicles in combination, the motor carrier shall make a careful inspection and test to ascertain that:

- (1) The towbar or saddle-mount connections are properly secured to the towed and towing vehicle;
- (2) They function adequately without cramping or binding of any of the parts; and
- (3) The towed motor vehicle follows substantially in the path of the towing vehicle without whipping or swerving.

(c) *Post-trip inspection.* Motor carriers shall maintain practices to ensure that following completion of any trip in driveaway-towaway operation of motor vehicles in combination, and before they are used again, the towbars and saddle-mounts are disassembled and inspected for worn, bent, cracked, broken, or missing parts. Before reuse, suitable repair or replacement shall be made of any defective parts and the devices shall be properly reassembled.

[44 FR 38526, July 2, 1979, as amended at 53 FR 49410, Dec. 7, 1988; 53 FR 49968, Dec. 12, 1988]

### **§ 396.17 Periodic inspection.**

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(a) Every commercial motor vehicle shall be inspected as required by this section. The inspection shall include, at a minimum, the parts and accessories set forth in appendix G of this subchapter.

**Note:** The term commercial motor vehicle includes each vehicle in a combination vehicle. For example, for a tractor semitrailer, fulltrailer combination, the tractor, semitrailer, and the fulltrailer (including the converter dolly if so equipped) shall each be inspected.

(b) Except as provided in §396.23, a motor carrier shall inspect or cause to be inspected all motor vehicles subject to its control.

(c) A motor carrier shall not use a commercial motor vehicle unless each component identified in appendix G has passed an inspection in accordance with the terms of this section at least once during the preceding 12 months and documentation of such inspection is on the vehicle. The documentation may be:

- (1) The inspection report prepared in accordance with paragraph 396.21(a), or
- (2) Other forms of documentation, based on the inspection report (e.g., sticker or decal), which contains the following information:
  - (i) The date of inspection;
  - (ii) Name and address of the motor carrier or other entity where the inspection report is maintained;
  - (iii) Information uniquely identifying the vehicle inspected if not clearly marked on the motor vehicle; and
  - (iv) A certification that the vehicle has passed an inspection in accordance with §396.17.

(d) A motor carrier may perform the required annual inspection for vehicles under the carrier's control which are not subject to an inspection under §396.23(b)(1).

(e) In lieu of the self inspection provided for in paragraph (d) of this section, a motor carrier may choose to have a commercial garage, fleet leasing company, truck stop, or other similar commercial business perform the inspection as its agent, provided that business operates and maintains facilities appropriate for commercial vehicle inspections and it employs qualified inspectors, as required by §396.19.

(f) Vehicles passing roadside or periodic inspections performed under the auspices of any State government or equivalent jurisdiction or the FMCSA, meeting the minimum standards contained in appendix G of this subchapter, will be considered to have met the requirements of an annual inspection for a period of 12 months commencing from the last day of the month in which the inspection was performed, except as provided in §396.23(b)(1).

(g) It shall be the responsibility of the motor carrier to ensure that all parts and accessories not meeting the minimum standards set forth in appendix G to this subchapter are repaired promptly.

(h) Failure to perform properly the annual inspection set forth in this section shall cause the motor carrier to be subject to the penalty provisions provided by 49 U.S.C. 521(b).

[53 FR 49410, Dec. 7, 1988; 53 FR 49968, Dec. 12, 1988, as amended at 54 FR 50725, Dec. 8, 1989]

### **§ 396.19 Inspector qualifications.**

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(a) It shall be the motor carrier's responsibility to ensure that the individual(s) performing an annual inspection under §396.17 (d) or (e) is qualified as follows:

(1) Understands the inspection criteria set forth in 49 CFR part 393 and appendix G of this subchapter and can identify defective components;

(2) Is knowledgeable of and has mastered the methods, procedures, tools and equipment used when performing an inspection; and

(3) Is capable of performing an inspection by reason of experience, training, or both as follows:

(i) Successfully completed a State or Federal-sponsored training program or has a certificate from a State or Canadian Province which qualifies the person to perform commercial motor vehicle safety inspections, or

(ii) Have a combination of training and/or experience totaling at least 1 year. Such training and/or experience may consist of:

(A) Participation in a truck manufacturer-sponsored training program or similar commercial training program designed to train students in truck operation and maintenance;

(B) Experience as a mechanic or inspector in a motor carrier maintenance program;

(C) Experience as a mechanic or inspector in truck maintenance at a commercial garage, fleet leasing company, or similar facility; or

(D) Experience as a commercial vehicle inspector for a State, Provincial or Federal Government.

(b) Evidence of that individual's qualifications under this section shall be retained by the motor carrier for the period during which that individual is performing annual motor vehicle inspections for the motor carrier, and for one year thereafter. However, motor carriers do not have to maintain documentation of inspector qualifications for those inspections performed either as part of a State periodic inspection program or at the roadside as part of a random roadside inspection program.

[53 FR 49410, Dec. 7, 1988; 53 FR 49968, Dec. 12, 1988]

### **§ 396.21 Periodic inspection recordkeeping requirements.**

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(a) The qualified inspector performing the inspection shall prepare a report which:

- (1) Identifies the individual performing the inspection;
  - (2) Identifies the motor carrier operating the vehicle;
  - (3) Identifies the date of the inspection;
  - (4) Identifies the vehicle inspected;
  - (5) Identifies the vehicle components inspected and describes the results of the inspection, including the identification of those components not meeting the minimum standards set forth in appendix G to this subchapter; and
  - (6) Certifies the accuracy and completeness of the inspection as complying with all the requirements of this section.
- (b)(1) The original or a copy of the inspection report shall be retained by the motor carrier or other entity who is responsible for the inspection for a period of fourteen months from the date of the inspection report. The original or a copy of the inspection report shall be retained where the vehicle is either housed or maintained.
- (2) The original or a copy of the inspection report shall be available for inspection upon demand of an authorized Federal, State or local official.
- (3) *Exception.* Where the motor carrier operating the commercial motor vehicles did not perform the commercial motor vehicle's last annual inspection, the motor carrier shall be responsible for obtaining the original or a copy of the last annual inspection report upon demand of an authorized Federal, State, or local official.

[54 FR 50725, Dec. 8, 1989]

### **§ 396.23 Equivalent to periodic inspection.**

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- (a) The motor carrier may meet the requirements of §396.17 through a State or other jurisdiction's roadside inspection program. The inspection must have been performed during the preceding 12 months. In using the roadside inspection, the motor carrier would need to retain a copy of an annual inspection report showing that the inspection was performed in accordance with the minimum periodic inspection standards set forth in appendix G to this subchapter. When accepting such an inspection report, the motor carrier must ensure that the report complies with the requirements of §396.21(a).
- (b)(1) If a commercial motor vehicle is subject to a mandatory State inspection program which is determined by the Administrator to be as effective as §396.17, the motor carrier shall meet the requirement of §396.17 through that State's inspection program. Commercial motor vehicle inspections may be conducted by State personnel, at State authorized commercial facilities, or by the motor carrier under the auspices of a State authorized self-inspection program.
- (2) Should the FMCSA determine that a State inspection program, in whole or in part, is not as effective as §396.17, the motor carrier must ensure that the periodic inspection required by §396.17 is performed on all commercial motor vehicles under its control in a manner specified in §396.17.

[53 FR 49410, Dec. 7, 1988; 53 FR 49968, Dec. 12, 1988, as amended at 60 FR 38749, July 28, 1995]

### **§ 396.25 Qualifications of brake inspectors.**

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- (a) The motor carrier shall ensure that all inspections, maintenance, repairs or service to the brakes of its commercial motor vehicles, are performed in compliance with the requirements of this section.
- (b) For purposes of this section, *brake inspector* means any employee of a motor carrier who is responsible for ensuring all brake inspections, maintenance, service, or repairs to any commercial motor vehicle, subject to the motor carrier's control, meet the applicable Federal standards.

(c) No motor carrier shall require or permit any employee who does not meet the minimum brake inspector qualifications of §396.25(d) to be responsible for the inspection, maintenance, service or repairs of any brakes on its commercial motor vehicles.

(d) The motor carrier shall ensure that each brake inspector is qualified as follows:

(1) Understands the brake service or inspection task to be accomplished and can perform that task; and

(2) Is knowledgeable of and has mastered the methods, procedures, tools and equipment used when performing an assigned brake service or inspection task; and

(3) Is capable of performing the assigned brake service or inspection by reason of experience, training or both as follows:

(i) Has successfully completed an apprenticeship program sponsored by a State, a Canadian Province, a Federal agency or a labor union, or a training program approved by a State, Provincial or Federal agency, or has a certificate from a State or Canadian Province which qualifies the person to perform the assigned brake service or inspection task (including passage of Commercial Driver's License air brake tests in the case of a brake inspection); or

(ii) Has brake-related training or experience or a combination thereof totaling at least one year. Such training or experience may consist of:

(A) Participation in a training program sponsored by a brake or vehicle manufacturer or similar commercial training program designed to train students in brake maintenance or inspection similar to the assigned brake service or inspection tasks; or

(B) Experience performing brake maintenance or inspection similar to the assigned brake service or inspection task in a motor carrier maintenance program; or

(C) Experience performing brake maintenance or inspection similar to the assigned brake service or inspection task at a commercial garage, fleet leasing company, or similar facility.

(e) No motor carrier shall employ any person as a brake inspector unless the evidence of the inspector's qualifications, required under this section is maintained by the motor carrier at its principal place of business, or at the location at which the brake inspector is employed. The evidence must be maintained for the period during which the brake inspector is employed in that capacity and for one year thereafter. However, motor carriers do not have to maintain evidence of qualifications to inspect air brake systems for such inspections performed by persons who have passed the air brake knowledge and skills test for a Commercial Driver's License.

[56 FR 491, Jan. 7, 1991]

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### **PART 397—TRANSPORTATION OF HAZARDOUS MATERIALS; DRIVING AND PARKING RULES**

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  - [§ 397.221 Timeliness.](#)
  - [§ 397.223 Petition for reconsideration.](#)
  - [§ 397.225 Judicial review.](#)
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**Authority:** 49 U.S.C. 322; 49 CFR 1.73. Subpart A also issued under 49 U.S.C. 5103, 31136, 31502, and 49 CFR 1.53. Subparts C, D, and E also issued under 49 U.S.C. 5112, 5125.

**Source:** 36 FR 4876, Mar. 13, 1971, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 397 appear at 66 FR 49874, Oct. 1, 2001.

## **Subpart A—General**

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### **§ 397.1 Application of the rules in this part.**

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(a) The rules in this part apply to each motor carrier engaged in the transportation of hazardous materials by a motor vehicle which must be marked or placarded in accordance with §177.823 of this title and to—

(1) Each officer or employee of the motor carrier who performs supervisory duties related to the transportation of hazardous materials; and

(2) Each person who operates or who is in charge of a motor vehicle containing hazardous materials.

(b) Each person designated in paragraph (a) of this section must know and obey the rules in this part.

[36 FR 4876, Mar. 13, 1971, as amended at 36 FR 16067, Aug. 19, 1971; 53 FR 18058, May 19, 1988; 60 FR 38749, July 28, 1995]

### **§ 397.2 Compliance with Federal motor carrier safety regulations.**

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A motor carrier or other person to whom this part is applicable must comply with the rules in parts 390 through 397, inclusive, of this subchapter when he/she is transporting hazardous materials by a motor vehicle which must be marked or placarded in accordance with §177.823 of this title.

[37 FR 18080, Sept. 7, 1972]

### **§ 397.3 State and local laws, ordinances, and regulations.**

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Every motor vehicle containing hazardous materials must be driven and parked in compliance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated, unless they are at variance with specific regulations of the Department of Transportation which are applicable to the operation of that vehicle and which impose a more stringent obligation or restraint.

### **§ 397.5 Attendance and surveillance of motor vehicles.**

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(a) Except as provided in paragraph (b) of this section, a motor vehicle which contains a Division 1.1, 1.2, or 1.3 (explosive) material must be attended at all times by its driver or a qualified representative of the motor carrier that operates it.



(b) The rules in paragraph (a) of this section do not apply to a motor vehicle which contains Division 1.1, 1.2, or 1.3 material if all the following conditions exist—

(1) The vehicle is located on the property of a motor carrier, on the property of a shipper or consignee of the explosives, in a safe haven, or, in the case of a vehicle containing 50 pounds or less of a Division 1.1, 1.2, or 1.3 material, on a construction or survey site; and

(2) The lawful bailee of the explosives is aware of the nature of the explosives the vehicle contains and has been instructed in the procedures which must be followed in emergencies; and

(3) The vehicle is within the bailee's unobstructed field of view or is located in a safe haven.

(c) A motor vehicle which contains hazardous materials other than Division 1.1, 1.2, or 1.3, materials, and which is located on a public street or highway, or the shoulder of a public highway, must be attended by its driver. However, the vehicle need not be attended while its driver is performing duties which are incident and necessary to the driver's duties as the operator of the vehicle.

(d) For purposes of this section—

(1) A motor vehicle is attended when the person in charge of the vehicle is on the vehicle, awake, and not in a sleeper berth, or is within 100 feet of the vehicle and has it within his/her unobstructed field of view.

(2) A qualified representative of a motor carrier is a person who—

(i) Has been designated by the carrier to attend the vehicle;

(ii) Is aware of the nature of the hazardous materials contained in the vehicle he/she attends;

(iii) Has been instructed in the procedures he/she must follow in emergencies; and

(iv) Is authorized to move the vehicle and has the means and ability to do so.

(3) A safe haven in an area specifically approved in writing by local, State, or Federal governmental authorities for the parking of unattended vehicles containing Division 1.1, 1.2, or 1.3 materials.

(e) The rules in this section do not relieve the driver from any obligation imposed by law relating to the placing of warning devices when a motor vehicle is stopped on a public street or highway.

[59 FR 63925, Dec. 12, 1994]

### **§ 397.7 Parking.**

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(a) A motor vehicle which contains Division 1.1, 1.2, or 1.3 materials must not be parked under any of the following circumstances—

(1) On or within 5 feet of the traveled portion of a public street or highway;

(2) On private property (including premises of fueling or eating facility) without the knowledge and consent of the person who is in charge of the property and who is aware of the nature of the hazardous materials the vehicle contains; or

(3) Within 300 feet of a bridge, tunnel, dwelling, or place where people work, congregate, or assemble, except for brief periods when the necessities of operation require the vehicle to be parked and make it impracticable to park the vehicle in any other place.

(b) A motor vehicle which contains hazardous materials other than Division 1.1, 1.2, or 1.3 materials must not be parked on or within five feet of the traveled portion of public street or highway except for brief periods when the necessities of operation require the vehicle to be parked and make it impracticable to park the vehicle in any other place.

[59 FR 63925, Dec. 12, 1994]

### **§ 397.9 [Reserved]**

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### **§ 397.11 Fires.**

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(a) A motor vehicle containing hazardous materials must not be operated near an open fire unless its driver has first taken precautions to ascertain that the vehicle can safely pass the fire without stopping.

(b) A motor vehicle containing hazardous materials must not be parked within 300 feet of an open fire.

### **§ 397.13 Smoking.**

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No person may smoke or carry a lighted cigarette, cigar, or pipe on or within 25 feet of—

(a) A motor vehicle which contains Class 1 materials, Class 5 materials, or flammable materials classified as Division 2.1, Class 3, Divisions 4.1 and 4.2; or

(b) An empty tank motor vehicle which has been used to transport Class 3, flammable materials, or Division 2.1 flammable gases, which when so used, was required to be marked or placarded in accordance with the rules in §177.823 of this title.

[59 FR 63925, Dec. 12, 1994]

### **§ 397.15 Fueling.**

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When a motor vehicle which contains hazardous materials is being fueled—

(a) Its engine must not be operating; and

(b) A person must be in control of the fueling process at the point where the fuel tank is filled.

### **§ 397.17 Tires.**

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(a) A driver must examine each tire on a motor vehicle at the beginning of each trip and each time the vehicle is parked.

(b) If, as the result of an examination pursuant to paragraph (a) of this section, or otherwise, a tire is found to be flat, leaking, or improperly inflated, the driver must cause the tire to be repaired, replaced, or properly inflated before the vehicle is driven. However, the vehicle may be driven to the nearest safe place to perform the required repair, replacement, or inflation.

(c) If, as the result of an examination pursuant to paragraph (a) of this section, or otherwise, a tire is found to be overheated, the driver shall immediately cause the overheated tire to be removed and placed at a safe distance from the vehicle. The driver shall not operate the vehicle until the cause of the overheating is corrected.

(d) Compliance with the rules in this section does not relieve a driver from the duty to comply with the rules in §§397.5 and 397.7.

### **§ 397.19 Instructions and documents.**

[↑ top](#)

(a) A motor carrier that transports Division 1.1, 1.2, or 1.3 (explosive) materials must furnish the driver of each motor vehicle in which the explosives are transported with the following documents:

(1) A copy of the rules in this part;

(2) [Reserved]

(3) A document containing instructions on procedures to be followed in the event of accident or delay. The documents must include the names and telephone numbers of persons (including representatives of carriers or shippers) to be contacted, the nature of the explosives being transported, and the precautions to be taken in emergencies such as fires, accidents, or leakages.

(b) A driver who receives documents in accordance with paragraph (a) of this section must sign a receipt for them. The motor carrier shall maintain the receipt for a period of one year from the date of signature.

(c) A driver of a motor vehicle which contains Division 1.1, 1.2, or 1.3 materials must be in possession of, be familiar with, and be in compliance with

(1) The documents specified in paragraph (a) of this section;

(2) The documents specified in §177.817 of this title; and

(3) The written route plan specified in §397.67.

[59 FR 63925, Dec. 12, 1994, as amended at 63 FR 33280, June 18, 1998]

### **Subpart B [Reserved]**

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### **Subpart C—Routing of Non-Radioactive Hazardous Materials**

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**Source:** 59 FR 51830, Oct. 12, 1994, unless otherwise noted.

### **§ 397.61 Purpose and scope.**

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This subpart contains routing requirements and procedures that States and Indian tribes are required to follow if they establish, maintain, or enforce routing designations over which a non-radioactive hazardous material (NRHM) in a quantity which requires placarding may or may not be transported by a motor vehicle. It also provides regulations for motor carriers transporting placarded or marked NRHM and procedures for dispute resolutions regarding NRHM routing designations.

### § 397.63 Applicability.

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The provisions of this subpart apply to any State or Indian tribe that establishes, maintains, or enforces any routing designations over which NRHM may or may not be transported by motor vehicle. They also apply to any motor carrier that transports or causes to be transported placarded or marked NRHM in commerce.

### § 397.65 Definitions.

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For purposes of this subpart, the following definitions apply:

*Administrator.* The Federal Motor Carrier Safety Administrator, who is the chief executive of the Federal Motor Carrier Safety Administration, an agency within the United States Department of Transportation, or his/her designate.

*Commerce.* Any trade, traffic, or transportation in the United States which:

(1) Is between a place under the jurisdiction of a State or Indian tribe and any place outside of such jurisdiction; or

(2) Is solely within a place under the jurisdiction of a State or Indian tribe but which affects trade, traffic, or transportation described in subparagraph (a).

*FMCSA.* The Federal Motor Carrier Safety Administration, an agency within the Department of Transportation.

*Hazardous material.* A substance or material, including a hazardous substance, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, or property when transported in commerce, and which has been so designated.

*Indian tribe.* Has the same meaning as contained in §4 of the Indian Self-Determination and Education Act, 25 U.S.C. 450b.

*Motor carrier.* A for-hire motor carrier or a private motor carrier of property. The term includes a motor carrier's agents, officers and representatives as well as employees responsible for hiring, supervising, training, assigning, or dispatching of drivers.

*Motor vehicle.* Any vehicle, machine, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property, or any combination thereof.

*NRHM.* A non-radioactive hazardous material transported by motor vehicle in types and quantities which require placarding, pursuant to Table 1 or 2 of 49 CFR 172.504.

*Political subdivision.* A municipality, public agency or other instrumentality of one or more States, or a public corporation, board, or commission established under the laws of one or more States.

*Radioactive material.* Any material having a specific activity greater than 0.002 microcuries per gram (uCi/g), as defined in 49 CFR 173.403.

*Routing agency.* The State highway agency or other State agency designated by the Governor of that State, or an agency designated by an Indian tribe, to supervise, coordinate, and approve the NRHM routing designations for that State or Indian tribe.

*Routing designations.* Any regulation, limitation, restriction, curfew, time of travel restriction, lane restriction, routing ban, port-of-entry designation, or route weight restriction, applicable to the highway transportation of NRHM over a specific highway route or portion of a route.

*Secretary.* The Secretary of Transportation.

State. A State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa or Guam.

### **§ 397.67 Motor carrier responsibility for routing.**

[↑ top](#)

(a) A motor carrier transporting NRHM shall comply with NRHM routing designations of a State or Indian tribe pursuant to this subpart.

(b) A motor carrier carrying hazardous materials required to be placarded or marked in accordance with 49 CFR 177.823 and not subject to a NRHM routing designations pursuant to this subpart, shall operate the vehicle over routes which do not go through or near heavily populated areas, places where crowds are assembled, tunnels, narrow streets, or alleys, except where the motor carrier determines that:

(1) There is no practicable alternative;

(2) A reasonable deviation is necessary to reach terminals, points of loading and unloading, facilities for food, fuel, repairs, rest, or a safe haven; or

(3) A reasonable deviation is required by emergency conditions, such as a detour that has been established by a highway authority, or a situation exists where a law enforcement official requires the driver to take an alternative route.

(c) Operating convenience is not a basis for determining whether it is practicable to operate a motor vehicle in accordance with paragraph (b) of this section.

(d) Before a motor carrier requires or permits a motor vehicle containing explosives in Class 1, Divisions 1.1, 1.2, 1.3, as defined in 49 CFR 173.50 and 173.53 respectively, to be operated, the carrier or its agent shall prepare a written route plan that complies with this section and shall furnish a copy to the driver. However, the driver may prepare the written plan as agent for the motor carrier when the trip begins at a location other than the carrier's terminal.

### **§ 397.69 Highway routing designations; preemption.**

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(a) Any State or Indian tribe that establishes or modifies a highway routing designation over which NRHM may or may not be transported on or after November 14, 1994, and maintains or enforces such designation, shall comply with the highway routing standards set forth in §397.71 of this subpart. For purposes of this subpart, any highway routing designation affecting the highway transportation of NRHM, made by a political subdivision of a State is considered as one made by that State, and all requirements of this subpart apply.

(b) Except as provided in §§397.75 and 397.219, a NRHM route designation made in violation of paragraph (a) of this section is preempted pursuant to section 105(b)(4) of the Hazardous Materials Transportation Act (49 U.S.C. app. 1804(b)(4)). This provision shall become effective after November 14, 1996.

(c) A highway routing designation established by a State, political subdivision, or Indian tribe before November 14, 1994 is subject to preemption in accordance with the preemption standards in paragraphs (a)(1) and (a)(2) of §397.203 of this subpart.

(d) A State, political subdivision, or Indian tribe may petition for a waiver of preemption in accordance with §397.213 of this part.

### **§ 397.71 Federal standards.**

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(a) A State or Indian tribe shall comply with the Federal standards under paragraph (b) of this section when establishing, maintaining or enforcing specific NRHM routing designations over which NRHM may or may not be transported.

(b) The Federal standards are as follows:

(1) *Enhancement of public safety.* The State or Indian tribe shall make a finding, supported by the record to be developed in accordance with paragraphs (b)(2)(ii) and (b)(3)(iv) of this section, that any NRHM routing designation enhances public safety in the areas subject to its jurisdiction and in other areas which are directly affected by such highway routing designation. In making such a finding, the State or Indian tribe shall consider:

(i) The factors listed in paragraph (b)(9) of this section; and

(ii) The DOT "Guidelines for Applying Criteria to Designate Routes for Transporting Hazardous Materials," DOT/RSPA/OHMT-89-02, July 1989 <sup>1</sup> or its most current version; or an equivalent routing analysis which adequately considers overall risk to the public.

<sup>1</sup> This document may be obtained from Office of Enforcement and Compliance (MC-PSDECH), Federal Motor Carrier Safety Administration, U.S. Department of Transportation, 400 7th Street, SW., Washington, D.C. 20590-0001.

(2) *Public participation.* Prior to the establishment of any NRHM routing designation, the State or Indian tribe shall undertake the following actions to ensure participation by the public in the routing process:

(i) The State or Indian tribe shall provide the public with notice of any proposed NRHM routing designation and a 30-day period in which to comment. At any time during this period or following review of the comments received, the State or Indian tribe shall decide whether to hold a public hearing on the proposed NRHM route designation. The public shall be given 30 days prior notice of the public hearing which shall be conducted as described in paragraph (b)(2)(ii) of this section. Notice for both the comment period and the public hearing, if one is held, shall be given by publication in at least two newspapers of general circulation in the affected area or areas and shall contain a complete description of the proposed routing designation, together with the date, time, and location of any public hearings. Notice for both the comment period and any public hearing may also be published in the official register of the State.

(ii) If it is determined that a public hearing is necessary, the State or Indian tribe shall hold at least one public hearing on the record during which the public will be afforded the opportunity to present their views and any information or data related to the proposed NRHM routing designation. The State shall make available to the public, upon payment of prescribed costs, copies of the transcript of the hearing, which shall include all exhibits and documents presented during the hearing or submitted for the record.

(3) *Consultation with others.* Prior to the establishment of any NRHM routing designation, the State or Indian tribe shall provide notice to, and consult with, officials of affected political subdivisions, States and Indian tribes, and any other affected parties. Such actions shall include the following:

(i) At least 60 days prior to establishing a routing designation, the State or Indian tribe shall provide notice, in writing, of the proposed routing designation to officials responsible for highway routing in all other affected States or Indian tribes. A copy of this notice may also be sent to all affected political subdivisions. This notice shall request approval, in writing, by those States or Indian tribes, of the proposed routing designations. If no response is received within 60 days from the day of receipt of the notification of the proposed routing designation, the routing designation shall be considered approved by the affected State or Indian tribe.

(ii) The manner in which consultation under this paragraph is conducted is left to the discretion of the State or Indian tribe.

(iii) The State or Indian tribe shall attempt to resolve any concern or disagreement expressed by any consulted official related to the proposed routing designation.

(iv) The State or Indian tribe shall keep a record of the names and addresses of the officials notified pursuant to this section and of any consultation or meeting conducted with these officials or their representatives. Such record shall describe any concern or disagreement expressed by the officials and any action undertaken to resolve such disagreement or address any concern.

(4) *Through routing.* In establishing any NRHM routing designation, the State or Indian tribe shall ensure through highway routing for the transportation of NRHM between adjacent areas. The term "through highway routing" as used in this paragraph means that the routing designation must ensure continuity of movement so as to not impede or unnecessarily delay the transportation of NRHM. The State or Indian tribe shall utilize the procedures established in paragraphs (b)(2) and (b)(3) of this section in meeting these requirements. In addition, the State or Indian tribe shall make a finding,

supported by a risk analysis conducted in accordance with paragraph (b)(1) of this section, that the routing designation enhances public safety. If the risk analysis shows—

(i) That the current routing presents at least 50 percent more risk to the public than the deviation under the proposed routing designation, then the proposed routing designation may go into effect.

(ii) That the current routing presents a greater risk but less than 50 percent more risk to the public than the deviation under the proposed routing restriction, then the proposed routing restriction made by a State or Indian tribe shall only go into effect if it does not force a deviation of more than 25 miles or result in an increase of more than 25 percent of that part of a trip affected by the deviation, whichever is shorter, from the most direct route through a jurisdiction as compared to the intended deviation.

(iii) That the current route has the same or less risk to the public than the deviation resulting from the proposed routing designation, then the routing designation shall not be allowed.

(5) *Agreement of other States; burden on commerce.* Any NRHM routing designation which affects another State or Indian tribe shall be established, maintained, or enforced only if:

(i) It does not unreasonably burden commerce, and

(ii) It is agreed to by the affected State or Indian tribe within 60 days of receipt of the notice sent pursuant to paragraph (b)(3)(i) of this section, or it is approved by the Administrator pursuant to §397.75.

(6) *Timeliness.* The establishment of a NRHM routing designation by any State or Indian tribe shall be completed within 18 months of the notice given in either paragraph (b)(2) or (b)(3) of this section, whichever occurs first.

(7) *Reasonable routes to terminals and other facilities.* In establishing or providing for reasonable access to and from designated routes, the State or Indian tribe shall use the shortest practicable route considering the factors listed in paragraph (b)(9) of this section. In establishing any NRHM routing designation, the State or Indian tribe shall provide reasonable access for motor vehicles transporting NRHM to reach:

(i) Terminals,

(ii) Points of loading, unloading, pickup and delivery, and

(iii) Facilities for food, fuel, repairs, rest, and safe havens.

(8) *Responsibility for local compliance.* The States shall be responsible for ensuring that all of their political subdivisions comply with the provisions of this subpart. The States shall be responsible for resolving all disputes between such political subdivisions within their jurisdictions. If a State or any political subdivision thereof, or an Indian tribe chooses to establish, maintain, or enforce any NRHM routing designation, the Governor, or Indian tribe, shall designate a routing agency for the State or Indian tribe, respectively. The routing agency shall ensure that all NRHM routing designations within its jurisdiction comply with the Federal standards in this section. The State or Indian tribe shall comply with the public information and reporting requirements contained in §397.73.

(9) *Factors to consider.* In establishing any NRHM routing designation, the State or Indian tribe shall consider the following factors:

(i) *Population density.* The population potentially exposed to a NRHM release shall be estimated from the density of the residents, employees, motorists, and other persons in the area, using United States census tract maps or other reasonable means for determining the population within a potential impact zone along a designated highway route. The impact zone is the potential range of effects in the event of a release. Special populations such as schools, hospitals, prisons, and senior citizen homes shall, among other things, be considered when determining the potential risk to the populations along a highway routing. Consideration shall be given to the amount of time during which an area will experience a heavy population density.

(ii) *Type of highway.* The characteristics of each alternative NRHM highway routing designation shall be compared. Vehicle weight and size limits, underpass and bridge clearances, roadway geometrics, number of lanes, degree of access control, and median and shoulder structures are examples of characteristics which a State or Indian tribe shall consider.

(iii) *Types and quantities of NRHM.* An examination shall be made of the type and quantity of NRHM normally transported along highway routes which are included in a proposed NRHM routing designation, and consideration shall be given to the relative impact zone and risks of each type and quantity.

(iv) *Emergency response capabilities.* In consultation with the proper fire, law enforcement, and highway safety agencies, consideration shall be given to the emergency response capabilities which may be needed as a result of a NRHM routing designation. The analysis of the emergency response capabilities shall be based upon the proximity of the emergency response facilities and their capabilities to contain and suppress NRHM releases within the impact zones.

(v) *Results of consultation with affected persons.* Consideration shall be given to the comments and concerns of all affected persons and entities provided during public hearings and consultations conducted in accordance with this section.

(vi) *Exposure and other risk factors.* States and Indian tribes shall define the exposure and risk factors associated with any NRHM routing designations. The distance to sensitive areas shall be considered. Sensitive areas include, but are not limited to, homes and commercial buildings; special populations in hospitals, schools, handicapped facilities, prisons and stadiums; water sources such as streams and lakes; and natural areas such as parks, wetlands, and wildlife reserves.

(vii) *Terrain considerations.* Topography along and adjacent to the proposed NRHM routing designation that may affect the potential severity of an accident, the dispersion of the NRHM upon release and the control and clean up of NRHM if released shall be considered.

(viii) *Continuity of routes.* Adjacent jurisdictions shall be consulted to ensure routing continuity for NRHM across common borders. Deviations from the most direct route shall be minimized.

(ix) *Alternative routes.* Consideration shall be given to the alternative routes to, or resulting from, any NRHM route designation. Alternative routes shall be examined, reviewed, or evaluated to the extent necessary to demonstrate that the most probable alternative routing resulting from a routing designation is safer than the current routing.

(x) *Effects on commerce.* Any NRHM routing designation made in accordance with this subpart shall not create an unreasonable burden upon interstate or intrastate commerce.

(xi) *Delays in transportation.* No NRHM routing designations may create unnecessary delays in the transportation of NRHM.

(xii) *Climatic conditions.* Weather conditions unique to a highway route such as snow, wind, ice, fog, or other climatic conditions that could affect the safety of a route, the dispersion of the NRHM upon release, or increase the difficulty of controlling it and cleaning it up shall be given appropriate consideration.

(xiii) *Congestion and accident history.* Traffic conditions unique to a highway routing such as: traffic congestion; accident experience with motor vehicles, traffic considerations that could affect the potential for an accident, exposure of the public to any release, ability to perform emergency response operations, or the temporary closing of a highway for cleaning up any release shall be given appropriate consideration.

### **§ 397.73 Public information and reporting requirements.**

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(a) *Public information.* Information on NRHM routing designations must be made available by the States and Indian tribes to the public in the form of maps, lists, road signs or some combination thereof. If road signs are used, those signs and their placements must comply with the provisions of the Manual on Uniform Traffic Control Devices, <sup>2</sup> published by the FMCSA, particularly the Hazardous Cargo signs identified as R14–2 and R14–3 shown in Section 2B–43 of that Manual.

<sup>2</sup> This publication may be purchased from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, D.C. 20402 and has Stock No. 050–001–81001–8. It is available for inspection and copying as prescribed in 49 CFR part 7, appendix D. See 23 CFR part 655, subpart F.

(b) *Reporting and publishing requirements.* Each State or Indian tribe, through its routing agency, shall provide information identifying all NRHM routing designations which exist within their jurisdictions on November 14, 1994 to the FMCSA,



Office of Enforcement and Compliance (MC-PSDECH), 400 7th St., SW., Washington, D.C. 20590-0001 by March 13, 1995. The State or Indian tribe shall include descriptions of these routing designations, along with the dates they were established. This information may also be published in each State's official register of State regulations. Information on any subsequent changes or new NRHM routing designations shall be furnished within 60 days after establishment to the FMCSA. This information will be available from the FMCSA, consolidated by the FMCSA, and published annually in whole or as updates in the Federal Register. Each State may also publish this information in its official register of State regulations.

(Approved by the Office of Management and Budget under control number 2125-0554)

### **§ 397.75 Dispute resolution.**

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(a) *Petition.* One or more States or Indian tribes may petition the Administrator to resolve a dispute relating to an agreement on a proposed NRHM routing designation. In resolving a dispute under these provisions, the Administrator will provide the greatest level of safety possible without unreasonably burdening commerce, and ensure compliance with the Federal standards established at §397.71 of this subpart.

(b) *Filing.* Each petition for dispute resolution filed under this section must:

(1) Be submitted to the Administrator, Federal Motor Carrier Safety Administration, U.S. Department of Transportation, 400 7th Street, SW., Washington, DC 20590-0001. Attention: Office of the Chief Counsel (MC-PSDCC).

(2) Identify the State or Indian tribe filing the petition and any other State, political subdivision, or Indian tribe whose NRHM routing designation is the subject of the dispute.

(3) Contain a certification that the petitioner has complied with the notification requirements of paragraph (c) of this section, and include a list of the names and addresses of each State, political subdivision, or Indian tribe official who was notified of the filing of the petition.

(4) Clearly set forth the dispute for which resolution is sought, including a complete description of any disputed NRHM routing designation and an explanation of how the disputed routing designation affects the petitioner or how it impedes through highway routing. If the routing designation being disputed results in alternative routing, then a comparative risk analysis for the designated route and the resulting alternative routing shall be provided.

(5) Describe any actions taken by the State or Indian tribe to resolve the dispute.

(6) Explain the reasons why the petitioner believes that the Administrator should intervene in resolving the dispute.

(7) Describe any proposed actions that the Administrator should take to resolve the dispute and how these actions would provide the greatest level of highway safety without unreasonably burdening commerce and would ensure compliance with the Federal standards established in this subpart.

(c) *Notice.* (1) Any State or Indian tribe that files a petition for dispute resolution under this subpart shall mail a copy of the petition to any affected State, political subdivision, or Indian tribe, accompanied by a statement that the State, political subdivision, or Indian tribe may submit comments regarding the petition to the Administrator within 45 days.

(2) By serving notice on any other State, political subdivision, or Indian tribe determined by the Administrator to be possibly affected by the issues in dispute or the resolution sought, or by publication in the Federal Register, the Administrator may afford those persons an opportunity to file written comments on the petition.

(3) Any affected State, political subdivision, or Indian tribe submitting written comments to the Administrator with respect to a petition filed under this section shall send a copy of the comments to the petitioner and certify to the Administrator as to having complied with this requirement. The Administrator may notify other persons participating in the proceeding of the comments and provide an opportunity for those other persons to respond.

(d) *Court actions.* After a petition for dispute resolution is filed in accordance with this section, no court action may be brought with respect to the subject matter of such dispute until a final decision has been issued by the Administrator or until the last day of the one-year period beginning on the day the Administrator receives the petition, whichever occurs first.

(e) *Hearings; alternative dispute resolution.* Upon receipt of a petition filed pursuant to paragraph (a) of this section, the Administrator may schedule a hearing to attempt to resolve the dispute and, if a hearing is scheduled, will notify all parties to the dispute of the date, time, and place of the hearing. During the hearing the parties may offer any information pertinent to the resolution of the dispute. If an agreement is reached, it may be stipulated by the parties, in writing, and, if the Administrator agrees, made part of the decision in paragraph (f) of this section. If no agreement is reached, the Administrator may take the matter under consideration and announce his or her decision in accordance with paragraph (f) of this section. Nothing in this section shall be construed as prohibiting the parties from settling the dispute or seeking other methods of alternative dispute resolution prior to the final decision by the Administrator.

(f) *Decision.* The Administrator will issue a decision based on the petition, the written comments submitted by the parties, the record of the hearing, and any other information in the record. The decision will include a written statement setting forth the relevant facts and the legal basis for the decision.

(g) *Record.* The Administrator will serve a copy of the decision upon the petitioner and any other party who participated in the proceedings. A copy of each decision will be placed on file in the public docket. The Administrator may publish the decision or notice of the decision in the Federal Register.

### **§ 397.77 Judicial review of dispute decision.**

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Any State or Indian tribe adversely affected by the Administrator's decision under §397.75 of this subpart may seek review by the appropriate district court of the United States under such proceeding only by filing a petition with such court within 90 days after such decision becomes final.

### **Subpart D—Routing of Class 7 (Radioactive) Materials**

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### **§ 397.101 Requirements for motor carriers and drivers.**

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(a) Except as provided in paragraph (b) of this section or in circumstances when there is only one practicable highway route available, considering operating necessity and safety, a carrier or any person operating a motor vehicle that contains a Class 7 (radioactive) material, as defined in 49 CFR 172.403, for which placarding is required under 49 CFR part 172 shall:

- (1) Ensure that the motor vehicle is operated on routes that minimize radiological risk;
- (2) Consider available information on accident rates, transit time, population density and activities, and the time of day and the day of week during which transportation will occur to determine the level of radiological risk; and
- (3) Tell the driver which route to take and that the motor vehicle contains Class 7 (radioactive) materials.

(b) Except as otherwise permitted in this paragraph and in paragraph (f) of this section, a carrier or any person operating a motor vehicle containing a highway route controlled quantity of Class 7 (radioactive) materials, as defined in 49 CFR 173.403(l), shall operate the motor vehicle only over preferred routes.

(1) For purposes of this subpart, a preferred route is an Interstate System highway for which an alternative route is not designated by a State routing agency; a State-designated route selected by a State routing agency pursuant to §397.103; or both of the above.

(2) The motor carrier or the person operating a motor vehicle containing a highway route controlled quantity of Class 7 (radioactive) materials, as defined in 49 CFR 173.403(l) and (y), shall select routes to reduce time in transit over the preferred route segment of the trip. An Interstate System bypass or Interstate System beltway around a city, when available, shall be used in place of a preferred route through a city, unless a State routing agency has designated an alternative route.

(c) A motor vehicle may be operated over a route, other than a preferred route, only under the following conditions:

(1) The deviation from the preferred route is necessary to pick up or deliver a highway route controlled quantity of Class 7 (radioactive) materials, to make necessary rest, fuel or motor vehicle repair stops, or because emergency conditions make continued use of the preferred route unsafe or impossible;

(2) For pickup and delivery not over preferred routes, the route selected must be the shortest-distance route from the pickup location to the nearest preferred route entry location, and the shortest-distance route to the delivery location from the nearest preferred route exit location. Deviation from the shortest-distance pickup or delivery route is authorized if such deviation:

(i) Is based upon the criteria in paragraph (a) of this section to minimize the radiological risk; and

(ii) Does not exceed the shortest-distance pickup or delivery route by more than 25 miles and does not exceed 5 times the length of the shortest-distance pickup or delivery route.

(iii) Deviations from preferred routes, or pickup or delivery routes other than preferred routes, which are necessary for rest, fuel, or motor vehicle repair stops or because of emergency conditions, shall be made in accordance with the criteria in paragraph (a) of this section to minimize radiological risk, unless due to emergency conditions, time does not permit use of those criteria.

(d) A carrier (or a designated agent) who operates a motor vehicle which contains a package of highway route controlled quantity of Class 7 (radioactive) materials, as defined in 49 CFR 173.403(l), shall prepare a written route plan and supply a copy before departure to the motor vehicle driver and a copy to the shipper (before departure for exclusive use shipments, as defined in 49 CFR 173.403(i), or within fifteen working days following departure for all other shipments). Any variation between the route plan and routes actually used, and the reason for it, shall be reported in an amendment to the route plan delivered to the shipper as soon as practicable but within 30 days following the deviation. The route plan shall contain:

(1) A statement of the origin and destination points, a route selected in compliance with this section, all planned stops, and estimated departure and arrival times; and

(2) Telephone numbers which will access emergency assistance in each State to be entered.

(e) No person may transport a package of highway route controlled quantity of Class 7 (radioactive) materials on a public highway unless:

(1) The driver has received within the two preceding years, written training on:

(i) Requirements in 49 CFR parts 172, 173, and 177 pertaining to the Class 7 (radioactive) materials transported;

(ii) The properties and hazards of the Class 7 (radioactive) materials being transported; and

(iii) Procedures to be followed in case of an accident or other emergency.

(2) The driver has in his or her immediate possession a certificate of training as evidence of training required by this section, and a copy is placed in his or her qualification file (see §391.51 of this subchapter), showing:

(i) The driver's name and operator's license number;

(ii) The dates training was provided;

(iii) The name and address of the person providing the training;

(iv) That the driver has been trained in the hazards and characteristics of highway route controlled quantity of Class 7 (radioactive) materials; and

(v) A statement by the person providing the training that information on the certificate is accurate.

(3) The driver has in his or her immediate possession the route plan required by paragraph (d) of this section and operates the motor vehicle in accordance with the route plan.

(f) A person may transport irradiated reactor fuel only in compliance with a plan if required under 49 CFR 173.22(c) that will ensure the physical security of the material. Variation for security purposes from the requirements of this section is permitted so far as necessary to meet the requirements imposed under such a plan, or otherwise imposed by the U.S. Nuclear Regulatory Commission in 10 CFR part 73.

(g) Except for packages shipped in compliance with the physical security requirements of the U.S. Nuclear Regulatory Commission in 10 CFR part 73, each carrier who accepts for transportation a highway route controlled quantity of Class 7 (radioactive) material (see 49 CFR 173.401(l)), must, within 90 days following the acceptance of the package, file the following information concerning the transportation of each such package with the Office of Enforcement and Compliance (MC-PSDECH), Federal Motor Carrier Safety Administration, 400 Seventh Street, SW., Washington, DC 20590-0001:

(1) The route plan required under paragraph (d) of this section, including all required amendments reflecting the routes actually used;

(2) A statement identifying the names and addresses of the shipper, carrier and consignee; and

(3) A copy of the shipping paper or the description of the Class 7 (radioactive) material in the shipment required by 49 CFR 172.202 and 172.203.

[57 FR 44131, Sept. 24, 1992, as amended at 66 FR 49874, Oct. 1, 2001]

### **§ 397.103 Requirements for State routing designations.**

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(a) The State routing agency, as defined in §397.201(c), shall select routes to minimize radiological risk using “Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantity Shipments of Radioactive Materials,” or an equivalent routing analysis which adequately considers overall risk to the public. Designations must be preceded by substantive consultation with affected local jurisdictions and with any other affected States to ensure consideration of all impacts and continuity of designated routes.

(b) State routing agencies may designate preferred routes as an alternative to, or in addition to, one or more Interstate System highways, including interstate system bypasses, or Interstate System beltways.

(c) A State-designated route is effective when—

(1) The State gives written notice by certified mail, return receipt requested, to the Office of Enforcement and Compliance (MC-PSDECH), Attn: National Hazardous Materials Route Registry, 400 Seventh Street, SW., Washington, DC 20590.

(2) Receipt thereof is acknowledged in writing by the FMCSA.

(d) A list of State-designated preferred routes and a copy of the “Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantity Shipments of Radioactive Materials” are available upon request to Office of Enforcement and Compliance (MC-PSDECH), 400 Seventh Street, SW., Washington, DC 20590.

[57 FR 44131, Sept. 24, 1992, as amended at 66 FR 49874, Oct. 1, 2001]

### **Subpart E—Preemption Procedures**

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**Source:** 57 FR 44132, Sept. 24, 1992, unless otherwise noted.

### **§ 397.201 Purpose and scope of the procedures.**

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(a) This subpart prescribes procedures by which:

(1) Any person, including a State, political subdivision thereof, or Indian tribe, directly affected by any highway routing designation for hazardous materials may apply to the Administrator for a determination as to whether that highway routing designation is preempted under 49 U.S.C. 5125, or §397.69 or §397.203 of this part; and

(2) A State, political subdivision thereof, or Indian tribe may apply to the Administrator for a waiver of preemption with respect to any highway routing designation that the State, political subdivision thereof, or Indian tribe acknowledges to be preempted by 49 U.S.C. 5125, or §397.69 or §397.203 of this part, or that has been determined by a court of competent jurisdiction to be so preempted.

(b) Unless otherwise ordered by the Administrator, an application for a preemption determination which includes an application for a waiver of preemption will be treated and processed solely as an application for a preemption determination.

(c) For purposes of this part:

*Act* means 49 U.S.C. 5101 *et seq.*, formerly known as the Hazardous Materials Transportation Act.

*Administrator* means the Federal Highway Administrator, who is the chief executive of the Federal Motor Carrier Safety Administration, an agency of the United States Department of Transportation, or his/her designate.

*Hazardous material* means a substance or material, including a hazardous substance, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, or property, when transported in commerce, and which has been so designated.

*Indian tribe* has the same meaning as contained in section 4 of the Indian Self-Determination and Education Act, 25 U.S.C. 450b.

*Person* means an individual, firm, copartnership, corporation, company, association, joint-stock association, including any trustee, receiver, assignee, or similar representative thereof, or government, Indian tribe, or agency or instrumentality of any government or Indian tribe when it offers hazardous materials for transportation in commerce or transports hazardous materials in furtherance of a commercial enterprise, but such term does not include the United States Postal Service.

*Political subdivision* includes a municipality; a public agency or other instrumentality of one or more States, or a public corporation, board, or commission established under the laws of one or more States.

*Routing agency* means the State highway agency or other State agency designated by the Governor of a State, or an agency designated by an Indian tribe, to supervise, coordinate, and approve the highway routing designations for that State or Indian tribe. Any highway routing designation made by a political subdivision of a State shall be considered a designation made by that State.

*Routing designation* includes any regulation, limitation, restriction, curfew, time of travel restriction, lane restriction, routing ban, port-of-entry designation, or route weight restriction applicable to the highway transportation of hazardous materials over a specific highway route or portion of a route.

*State* means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

[57 FR 44132, Sept. 24, 1992, as amended at 59 FR 51834, Oct. 12, 1994]

### **§ 397.203 Standards for determining preemption.**

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(a) Any highway routing designation established, maintained, or enforced by a State, political subdivision thereof, or Indian tribe is preempted if—

(1) Compliance with both the highway routing designation and any requirement under the Act or of a regulation issued under the Act is not possible;

(2) The highway routing designation as applied or enforced creates an obstacle to the accomplishment and execution of the Act or the regulations issued under the Act; or

(3) The highway routing designation is preempted pursuant to §397.69(b) of this part.

(b) [Reserved]

[57 FR 44132, Sept. 24, 1992, as amended at 59 FR 51834, Oct. 12, 1994]

### **§ 397.205 Preemption application.**

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(a) Any person, including a State, political subdivision thereof, or Indian tribe directly affected by any highway routing designation of another State, political subdivision, or Indian tribe, may apply to the Administrator for a determination of whether that highway routing designation is preempted by the Act or §397.203 of this subpart. The Administrator shall publish notice of the application in the Federal Register.

(b) Each application filed under this section for a determination must:

(1) Be submitted to the Administrator, Federal Motor Carrier Safety Administration, U.S. Department of Transportation, Washington, DC 20590–0001. Attention: Office of the chief Counsel (MC-PSDCC), Hazardous Materials Preemption;

(2) Set forth a detailed description of the highway routing designation of the State, political subdivision thereof, or Indian tribe for which the determination is sought;

(3) If applicable, specify the provisions of the Act or the regulations issued under the Act under which the applicant seeks preemption of the highway routing designation of the State, political subdivision thereof, or Indian tribe;

(4) Explain why the applicant believes the highway routing designation of the State, political subdivision thereof, or Indian tribe should or should not be preempted under the standards of §397.203; and

(5) State how the applicant is affected by the highway routing designation of the State, political subdivision thereof, or Indian tribe.

(c) The filing of an application for a determination under this section does not constitute grounds for noncompliance with any requirement of the Act or any regulation issued under the Act.

(d) Once the Administrator has published notice in the Federal Register of an application received under paragraph (a) of this section, no applicant for such determination may seek relief with respect to the same or substantially the same issue in any court until final action has been taken on the application or until 180 days after filing of the application, whichever occurs first. Nothing in this section shall be construed as prohibiting any person, including a State, political subdivision thereof, or Indian tribe, directly affected by any highway routing designation from seeking a determination of preemption in any court of competent jurisdiction in lieu of applying to the Administrator under paragraph (a) of this section.

### **§ 397.207 Preemption notice.**

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(a) If the applicant is other than a State, political subdivision thereof, or Indian tribe, the applicant shall mail a copy of the application to the State, political subdivision thereof, or Indian tribe concerned, accompanied by a statement that comments may be submitted regarding the application to the Administrator within 45 days. The application filed with the

Administrator must include a certification that the applicant has complied with this paragraph and must include the names and addresses of each official to whom a copy of the application was sent.

(b) The Administrator may afford interested persons an opportunity to file written comments on the application by serving notice on any persons readily identifiable by the Administrator as persons who will be affected by the ruling sought or by publication in the Federal Register.

(c) Each person submitting written comments to the Administrator with respect to an application filed under this section shall send a copy of the comments to the applicant and certify to the Administrator that he or she has complied with this requirement. The Administrator may notify other persons participating in the proceeding of the comments and provide an opportunity for those other persons to respond.

### **§ 397.209 Preemption processing.**

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(a) The Administrator may initiate an investigation of any statement in an application and utilize in his or her evaluation any relevant facts obtained by that investigation. The Administrator may solicit and accept submissions from third persons relevant to an application and will provide the applicant an opportunity to respond to all third person submissions. In evaluating an application, the Administrator may consider any other source of information. The Administrator may convene a hearing or conference, if a hearing or conference will advance the evaluation of the application.

(b) The Administrator may dismiss the application without prejudice if:

(1) he or she determines that there is insufficient information upon which to base a determination; or

(2) he or she requests additional information from the applicant and it is not submitted.

### **§ 397.211 Preemption determination.**

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(a) Upon consideration of the application and other relevant information received, the Administrator issues a determination.

(b) Notwithstanding that an application for a determination has not been filed under §397.205, the Administrator, on his or her own initiative, may issue a determination as to whether a particular highway routing designation of a State, political subdivision thereof, or Indian tribe is preempted under the Act or the regulations issued under the Act.

(c) The determination includes a written statement setting forth the relevant facts and the legal basis for the determination, and provides that any person aggrieved thereby may file a petition for reconsideration within 20 days in accordance with §397.223.

(d) Unless the determination is issued pursuant to paragraph (b) of this section, the Administrator serves a copy of the determination upon the applicant. In all preemption determinations, the Administrator serves a copy of the determination upon any other person who participated in the proceeding or who is readily identifiable by the Administrator as affected by the determination. A copy of each determination is placed on file in the public docket. The Administrator may publish the determination or notice of the determination in the Federal Register.

(e) If no petition for reconsideration is filed within 20 days in accordance with §397.223, a determination issued under this section constitutes the final agency decision as to whether a particular highway routing designation of a State, political subdivision thereof, or Indian tribe is preempted under the Act or regulations issued thereunder. The fact that a determination has not been issued under this section with respect to a particular highway routing designation of a State, political subdivision thereof, or Indian tribe carries no implication as to whether the requirement is preempted under the Act or regulations issued thereunder.

### **§ 397.213 Waiver of preemption application.**

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(a) Any State, political subdivision thereof, or Indian tribe may apply to the Administrator for a waiver of preemption with respect to any highway routing designation that the State, political subdivision thereof, or Indian tribe acknowledges to be preempted by the Act, §397.203 of this subpart, or a court of competent jurisdiction. The Administrator may waive preemption with respect to such requirement upon a determination that such requirement—

(1) Affords an equal or greater level of protection to the public than is afforded by the requirements of the Act or regulations issued under the Act, and

(2) Does not unreasonably burden commerce.

(b) Each application filed under this section for a waiver of preemption determination must:

(1) Be submitted to the Administrator, Federal Motor Carrier Safety Administration, U.S. Department of Transportation, Washington, DC 20590-0001. Attention: Office of the Chief Counsel (MC-CC), Hazardous Materials Preemption Docket;

(2) Set forth a detailed description of the highway routing designation of the State, political subdivision thereof, or Indian tribe for which the determination is being sought;

(3) Include a copy of any relevant court order or determination issued pursuant to §397.211;

(4) Contain an express acknowledgment by the applicant that the highway routing designation of the State, political subdivision thereof, or Indian tribe is preempted under the Act or the regulations issued under the Act, unless it has been so determined by a court of competent jurisdiction or in a determination issued under this subpart;

(5) Specify each provision of the Act or the regulations issued under the Act that preempts the highway routing designation of the State, political subdivision thereof, or Indian tribe;

(6) State why the applicant believes that the highway routing designation of the State, political subdivision thereof, or Indian tribe affords an equal or greater level of protection to the public than is afforded by the requirements of the Act or the regulations issued under the Act;

(7) State why the applicant believes that the highway routing designation of the State, political subdivision thereof, or Indian tribe does not unreasonably burden commerce; and

(8) Specify what steps the State, political subdivision thereof, or Indian tribe is taking to administer and enforce effectively the preempted requirement.

### **§ 397.215 Waiver notice.**

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(a) The applicant State, political subdivision thereof, or Indian tribe shall mail a copy of the application and any subsequent amendments or other documents relating to the application to each person whom the applicant reasonably ascertains will be affected by the determination sought. The copy of the application must be accompanied by a statement that the person may submit comments regarding the application to the Administrator within 45 days. The application filed with the Administrator must include a certification with the application has complied with this paragraph and must include the names and addresses of each person to whom the application was sent.

(b) Notwithstanding the provisions of paragraph (a) of this section, if the State, political subdivision thereof, or Indian tribe determines that compliance with paragraph (a) of this section would be impracticable, the applicant shall:

(1) Comply with the requirements of paragraph (a) of this section with regard to those persons whom it is reasonable and practicable to notify; and

(2) Include with the application filed with the Administrator a description of the persons or class or classes of persons to whom notice was not sent.

(c) The Administrator may require the applicant to provide notice in addition to that required by paragraphs (a) and (b) of this section, or may determine that the notice required by paragraph (a) of this section is not impracticable, or that notice should be published in the Federal Register.



(d) The Administrator may serve notice on any other persons readily identifiable by the Administrator as persons who will be affected by the determination sought and may afford those persons an opportunity to file written comments on the application.

(e) Any person submitting written comments to the Administrator with respect to an application filed under this section shall send a copy of the comments to the applicant. The person shall certify to the Administrator that he or she has complied with the requirements of this paragraph. The Administrator may notify other persons participating in the proceeding of the comments and provide an opportunity for those other persons to respond.

### **§ 397.217 Waiver processing.**

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(a) The Administrator may initiate an investigation of any statement in an application and utilize any relevant facts obtained by that investigation. The Administrator may solicit and accept submissions from third persons relevant to an application and will provide the applicant an opportunity to respond to all third person submissions. In evaluating an application, the Administrator may convene a hearing or conference, if a hearing or conference will advance the evaluation of the application.

(b) The Administrator may dismiss the application without prejudice if:

- (1) he or she determines that there is insufficient information upon which to base a determination;
- (2) Upon his or her request, additional information is not submitted by the applicant; or
- (3) The applicant fails to provide the notice required by this subpart.

(c) Except as provided in this subpart, the Administrator will only consider an application for a waiver of preemption determination if:

- (1) The applicant expressly acknowledges in its application that the highway routing designation of the State, political subdivision thereof, or Indian tribe for which the determination is sought is preempted by the Act or the regulations thereunder; or
- (2) The highway routing designation of the State, political subdivision thereof, or Indian tribe has been determined by a court of competent jurisdiction or in a determination issued pursuant to §397.211 to be preempted by the Act or the regulations issued thereunder.

(d) When the Administrator has received all substantive information necessary to process an application for a waiver of preemption determination, notice of that fact will be served upon the applicant. Additional notice to all other persons who received notice of the proceeding may be served by publishing a notice in the Federal Register.

### **§ 397.219 Waiver determination and order.**

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(a) Upon consideration of the application and other relevant information received or obtained during the proceeding, the Administrator issues an order setting forth his or her determination.

(b) The Administrator may issue a waiver of preemption order only if he or she finds that the requirement of the State, political subdivision thereof, or Indian tribe affords the public a level of safety at least equal to that afforded by the requirements of the Act and the regulations issued under the Act and does not unreasonably burden commerce. In determining whether the requirement of the State, political subdivision thereof, or Indian tribe unreasonably burdens commerce, the Administrator may consider the following factors:

- (1) The extent to which increased costs and impairment of efficiency result from the highway routing designation of the State, political subdivision thereof, or Indian tribe;
- (2) Whether the highway routing designation of the State, political subdivision thereof, or Indian tribe has a rational basis;

(3) Whether the highway routing designation of the State, political subdivision thereof, or Indian tribe achieves its stated purpose; and

(4) Whether there is need for uniformity with regard to the subject concerned and if so, whether the highway routing designation of the State, political subdivision thereof, or Indian tribe competes or conflicts with those of other States, political subdivisions thereof, or Indian tribes.

(c) The order includes a written statement setting forth the relevant facts and the legal basis for the determination, and provides that any person aggrieved by the order may file a petition for reconsideration in accordance with §397.223.

(d) The Administrator serves a copy of the order upon the applicant, any other person who participated in the proceeding and upon any other person readily identifiable by the Administrator as one who may be affected by the order. A copy of each order is placed on file in the public docket. The Administrator may publish the order or notice of the order in the Federal Register.

(e) If no petition for reconsideration is filed within 20 days in accordance with §397.223, an order issued under this section constitutes the final agency decision regarding whether a particular requirement of a State, political subdivision thereof, or Indian tribe is preempted under the Act or any regulations issued thereunder, or whether preemption is waived.

### **§ 397.221 Timeliness.**

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If the Administrator fails to take action on the application within 90 days of serving the notice required by §397.217(d), the applicant may treat the application as having been denied in all respects.

### **§ 397.223 Petition for reconsideration.**

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(a) Any person aggrieved by an order issued under §397.211 or §397.219 may file a petition for reconsideration with the Administrator. The petition must be filed within 20 days of service of the determination or order issued under the above sections.

(b) The petition must contain a concise statement of the basis for seeking reconsideration, including any specific factual or legal errors, or material information not previously available.

(c) The petitioner shall mail a copy of the petition to each person who participated, either as an applicant or routing, in the waiver of preemption proceeding, accompanied by a statement that the person may submit comments concerning the petition to the Administrator within 20 days. The petition filed with the Administrator must contain a certification that the petitioner has complied with this paragraph and include the names and addresses of all persons to whom a copy of the petition was sent.

(d) The Administrator's decision under this section constitutes the final agency decision. If no petition for reconsideration is filed under this section, then the determination issued under §397.211 or §397.219 becomes the final agency decision at the end of the 20 day period.

### **§ 397.225 Judicial review.**

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A party to a proceeding under §397.205(a), §397.213(a), or §397.223(a) may seek review by the appropriate district court of the United States of the decision of the Administrator under such proceeding only by filing a petition with such court within 60 days after the final agency decision.

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Last updated: August 7, 2006

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### PART 398—TRANSPORTATION OF MIGRANT WORKERS

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**Authority:** 49 U.S.C. 13301, 13902, 31132, 31133, 31136, 31502, and 31504; sec. 204, Pub. L. 104–88, 109 Stat. 803, 941 (49 U.S.C. 701 note); sec. 212, Pub. L. 106–159, 113 Stat. 1748, 1766; and 49 CFR 1.73.

**Source:** 33 FR 19765, Dec. 25, 1968, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 398 appear at 66 FR 49874, Oct. 1, 2001.

#### § 398.1 Definitions.

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(a) *Migrant worker.* “Migrant worker” means any individual proceeding to or returning from employment in agriculture as defined in section 3(f) of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. 203(f)) or section 3121(g) of the Internal Revenue Code of 1954 (26 U.S.C. 3121(g)).

(b) *Carrier of migrant workers by motor vehicle.* “Carrier of migrant worker by motor vehicle” means any person, including any “contract carrier by motor vehicle”, but not including any “common carrier by motor vehicle”, who or which transports in interstate or foreign commerce at any one time three or more migrant workers to or from their employment by any motor vehicle other than a passenger automobile or station wagon, except a migrant worker transporting himself/herself or his/her immediate family.

(c) *Motor carrier.* “Motor carrier” means any carrier of migrant workers by motor vehicle as defined in paragraph (b) of this section.

(d) *Motor vehicle.* “Motor vehicle” means any vehicle, machine, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property, or any combination thereof, determined by the Administration, but does not include a passenger automobile or station wagon, any vehicle,

locomotive, or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation in street-railway service.

(e) *Bus*. "Bus" means any motor vehicle designed, constructed, and used for the transportation of passengers: Except passenger automobiles or station wagons other than taxicabs.

(f) *Truck*. "Truck" means any self-propelled motor vehicle except a truck tractor, designed and constructed primarily for the transportation of property.

(g) *Truck tractor*. "Truck tractor" means a self-propelled motor vehicle designed and used primarily for drawing other vehicles and not so constructed as to carry a load other than a part of the weight of the vehicle and load so drawn.

(h) *Semitrailer*. "Semitrailer" means any motor vehicle other than a "pole trailer", with or without motive power designed to be drawn by another motor vehicle and so constructed that some part of its weight rests upon the towing vehicle.

(i) *Driver or operator*. "Driver or operator" means any person who drives any motor vehicle.

(j) *Highway*. "Highway" means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular traffic.

## § 398.2 Applicability.

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(a) *General*. The regulations prescribed in this part are applicable to carriers of migrant workers by motor vehicle, as defined in §398.1(b), but only in the case of transportation of any migrant worker for a total distance of more than 75 miles (120.7 kilometers) in interstate commerce, as defined in 49 CFR 390.5.

(b) *Exception*. (1) The regulations prescribed in this part are not applicable to carriers of migrant workers by motor vehicle, as defined in §398.1(b), when:

(i) The motor vehicle is designed or used to transport between 9 and 15 passengers (including the driver);

(ii) The motor carrier is directly compensated for the transportation service; and

(iii) The vehicle used to transport migrant workers is operated beyond a 75 air-mile radius (86.3 statute miles or 138.9 kilometers) from the driver's normal work-reporting location.

(2) Carriers of migrant workers by motor vehicle that operate vehicles, designed or used to transport between 9 and 15 passengers (including the driver) for direct compensation, in interstate commerce, must comply with the applicable requirements of 49 CFR parts 385, 390, 391, 392, 393, 395, and 396, when the motor vehicle is operated beyond a 75 air-mile radius (86.3 statute miles or 138.9 kilometers) from the driver's normal work-reporting location.

[68 FR 47875, Aug. 12, 2003]

## § 398.3 Qualifications of drivers or operators.

[↑ top](#)

(a) *Compliance required*. Every motor carrier, and its officers, agents, representatives and employees who drive motor vehicles or are responsible for the hiring, supervision, training, assignment or dispatching of drivers shall comply and be conversant with the requirements of this part.

(b) *Minimum physical requirements*. No person shall drive, nor shall any motor carrier require or permit any person to drive, any motor vehicle unless such person possesses the following minimum qualifications:

(1) No loss of foot, leg, hand or arm,

(2) No mental, nervous, organic, or functional disease, likely to interfere with safe driving.

(3) No loss of fingers, impairment of use of foot, leg, fingers, hand or arm, or other structural defect or limitation, likely to interfere with safe driving.

(4) *Eyesight*: Visual acuity of at least 20/40 (Snellen) in each eye either without glasses or by correction with glasses; form field of vision in the horizontal meridian shall not be less than a total of 140 degrees; ability to distinguish colors red, green and yellow; drivers requiring correction by glasses shall wear properly prescribed glasses at all times when driving.

(5) *Hearing*: Hearing shall not be less than 10/20 in the better ear, for conversational tones, without a hearing aid.

(6) *Liquor, narcotics and drugs*: Shall not be addicted to the use of narcotics or habit forming drugs, or the excessive use of alcoholic beverages or liquors.

(7) *Initial and periodic physical examination of drivers*: No person shall drive nor shall any motor carrier require or permit any person to drive any motor vehicle unless within the immediately preceding 36 month period such person shall have been physically examined and shall have been certified in accordance with the provisions of paragraph (b)(8) of this section by a licensed doctor of medicine or osteopathy as meeting the requirements of this subsection.

(8) *Certificate of physical examination*: Every motor carrier shall have in its files at its principal place of business for every driver employed or used by it a legible certificate of a licensed doctor of medicine or osteopathy based on a physical examination as required by paragraph (b)(7) of this section or a legible photographically reproduced copy thereof, and every driver shall have in his/her possession while driving, such a certificate or a photographically reproduced copy thereof covering himself/herself.

(9) *Doctor's certificate*: The doctor's certificate shall certify as follows:

Doctor's Certificate

(Driver of Migrant Workers)

This is to certify that I have this day examined \_\_\_\_\_ in accordance with §398.3(b) of the Federal Motor Carrier Safety Regulations of the Federal Motor Carrier Safety Administration and that I find him/her

Qualified under said rules

Qualified only when wearing glasses

I have kept on file in my office a completed examination.

(Date) (Place) (Signature of examining doctor) (Address of doctor) Signature of driver \_\_\_\_\_  
Address of driver \_\_\_\_\_

(c) *Minimum age and experience requirements*. No person shall drive, nor shall any motor carrier require or permit any person to drive, any motor vehicle unless such person possesses the following minimum qualifications:

(1) *Age*. Minimum age shall be 21 years.

(2) *Driving skill*. Experience in driving some type of motor vehicle (including private automobiles) for not less than one year, including experience throughout the four seasons.

(3) *Knowledge of regulations*. Familiarity with the rules and regulations prescribed in this part pertaining to the driving of motor vehicles.

(4) *Knowledge of English*. Every driver shall be able to read and speak the English language sufficiently to understand highway traffic signs and signals and directions given in English and to respond to official inquiries.

(5) *Driver's permit.* Possession of a valid permit qualifying the driver to operate the type of vehicle driven by him/her in the jurisdiction by which the permit is issued.

[33 FR 19765, Dec. 25, 1968, as amended at 40 FR 44557, Sept. 29, 1975]

#### **§ 398.4 Driving of motor vehicles.**

[↑ top](#)

(a) *Compliance required.* Every motor carrier shall comply with the requirements of this part, shall instruct its officers, agents, representatives and drivers with respect thereto, and shall take such measures as are necessary to insure compliance therewith by such persons. All officers, agents, representatives, drivers, and employees of motor carriers directly concerned with the management, maintenance, operation, or driving of motor vehicles, shall comply with and be conversant with the requirements of this part.

(b) *Driving rules to be obeyed.* Every motor vehicle shall be driven in accordance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated, unless such laws, ordinances and regulations are at variance with specific regulations of this Administration which impose a greater affirmative obligation or restraint.

(c) *Driving while ill or fatigued.* No driver shall drive or be required or permitted to drive a motor vehicle while his/her ability or alertness is so impaired through fatigue, illness, or any other cause as to make it unsafe for him/her to begin or continue to drive, except in case of grave emergency where the hazard to passengers would be increased by observance of this section and then only to the nearest point at which the safety of passengers is assured.

(d) *Alcoholic beverages.* No driver shall drive or be required or permitted to drive a motor vehicle, be in active control of any such vehicle, or go on duty or remain on duty, when under the influence of any alcoholic beverage or liquor, regardless of its alcoholic content, nor shall any driver drink any such beverage or liquor while on duty.

(e) *Schedules to conform with speed limits.* No motor carrier shall permit nor require the operation of any motor vehicle between points in such period of time as would necessitate the vehicle being operated at speeds greater than those prescribed by the jurisdictions in or through which the vehicle is being operated.

(f) *Equipment and emergency devices.* No motor vehicle shall be driven unless the driver thereof shall have satisfied himself/herself that the following parts, accessories, and emergency devices are in good working order; nor shall any driver fail to use or make use of such parts, accessories, and devices when and as needed:

Service brakes, including trailer brake connections.

Parking (hand) brake.

Steering mechanism.

Lighting devices and reflectors.

Tires.

Horn.

Windshield wiper or wipers.

Rear-vision mirror or mirrors.

Coupling devices.

Fire extinguisher, at least one properly mounted.

Road warning devices, at least one red burning fusee and at least three flares (oil burning pot torches), red electric lanterns, or red emergency reflectors.

(g) *Safe loading—(1) Distribution and securing of load.* No motor vehicle shall be driven nor shall any motor carrier permit or require any motor vehicle to be driven if it is so loaded, or if the load thereon is so improperly distributed or so inadequately secured, as to prevent its safe operation.

(2) *Doors, tarpaulins, tailgates and other equipment.* No motor vehicle shall be driven unless the tailgate, tailboard, tarpaulins, doors, all equipment and rigging used in the operation of said vehicle, and all means of fastening the load, are securely in place.

(3) *Interference with driver.* No motor vehicle shall be driven when any object obscures his/her view ahead, or to the right or left sides, or to the rear, or interferes with the free movement of his/her arms or legs, or prevents his/her free and ready access to the accessories required for emergencies, or prevents the free and ready exit of any person from the cab or driver's compartment.

(4) *Property on motor vehicles.* No vehicle transporting persons and property shall be driven unless such property is stowed in a manner which will assure:

(i) Unrestricted freedom of motion to the driver for proper operation of the vehicle;

(ii) Unobstructed passage to all exits by any person; and

(iii) Adequate protection to passengers and others from injury as a result of the displacement or falling of such articles.

(5) *Maximum passengers on motor vehicles.* No motor vehicle shall be driven if the total number of passengers exceeds the seating capacity which will be permitted on seats prescribed in §398.5(f) when that section is effective. All passengers carried on such vehicle shall remain seated while the motor vehicle is in motion.

(h) *Rest and meal stops.* Every carrier shall provide for reasonable rest stops at least once between meal stops. Meal stops shall be made at intervals not to exceed six hours and shall be for a period of not less than 30 minutes duration.

(i) *Kinds of motor vehicles in which workers may be transported.* Workers may be transported in or on only the following types of motor vehicles: A bus, a truck with no trailer attached, or a semitrailer attached to a truck-tractor provided that no other trailer is attached to the semitrailer. Closed vans without windows or means to assure ventilation shall not be used.

(j) *Limitation on distance of travel in trucks.* Any truck when used for the transportation of migrant workers, if such workers are being transported in excess of 600 miles, shall be stopped for a period of not less than eight consecutive hours either before or upon completion of 600 miles travel, and either before or upon completion of any subsequent 600 miles travel to provide rest for drivers and passengers.

(k) *Lighting devices and reflectors.* No motor vehicle shall be driven when any of the required lamps or reflectors are obscured by the tailboard, by any and all lighting devices required by subpart B of part 393 of this subchapter shall be lighted during darkness or at any other time when there is not sufficient light to render vehicles and persons visible upon the highway at a distance of 500 feet.

(l) *Ignition of fuel; prevention.* No driver or any employee of a motor carrier shall:

(1) Fuel a motor vehicle with the engine running, except when it is necessary to run the engine to fuel the vehicle;

(2) Smoke or expose any open flame in the vicinity of a vehicle being fueled;

(3) Fuel a motor vehicle unless the nozzle of the fuel hose is continuously in contact with the intake pipe of the fuel tank;

(4) Permit any other person to engage in such activities as would be likely to result in fire or explosion.

(m) *Reserve fuel.* No supply of fuel for the propulsion of any motor vehicle or for the operation of any accessory thereof shall be carried on the motor vehicle except in a properly mounted fuel tank or tanks.

(n) *Driving by unauthorized person.* Except in case of emergency, no driver shall permit a motor vehicle to which he/she is assigned to be driven by any person not authorized to drive such vehicle by the motor carrier in control thereof.

(o) *Protection of passengers from weather.* No motor vehicle shall be driven while transporting passengers unless the passengers therein are protected from inclement weather conditions such as rain, snow, or sleet, by use of the top or protective devices required by §398.5(f).

(p) *Unattended vehicles; precautions.* No motor vehicle shall be left unattended by the driver until the parking brake has been securely set, the wheels chocked, and all reasonable precautions have been taken to prevent the movement of such vehicle.

(q) *Railroad grade crossings; stopping required; sign on rear of vehicle.* Every motor vehicle shall, upon approaching any railroad grade crossing, make a full stop not more than 50 feet, nor less than 15 feet from the nearest rail of such railroad grade crossing, and shall not proceed until due caution has been taken to ascertain that the course is clear; except that a full stop need not be made at:

(1) A street car crossing within a business or residence district of a municipality;

(2) A railroad grade crossing where a police officer or a traffic-control signal (not a railroad flashing signal) directs traffic to proceed;

(3) An abandoned or exempted grade crossing which is clearly marked as such by or with the consent of the proper state authority, when such marking can be read from the driver's position.

All such motor vehicles shall display a sign on the rear reading, "This Vehicle Stops at Railroad Crossings."

[33 FR 19765, Dec. 25, 1968, as amended at 40 FR 44557, Sept. 29, 1975]

## § 398.5 Parts and accessories necessary for safe operation.

[↑ top](#)

(a) *Compliance.* Every motor carrier and its officers, agents, drivers, representatives and employees directly concerned with the installation and maintenance of equipment and accessories shall comply and be conversant with the requirements and specifications of this part, and no motor carrier shall operate any motor vehicle, or cause or permit it to be operated, unless it is equipped in accordance with said requirements and specifications.

(b) *Lighting devices.* Every motor vehicle shall be equipped with the lighting devices and reflectors required by subpart B of part 393 of this subchapter.

(c) *Brakes.* Every motor vehicle shall be equipped with brakes as required by subpart C of part 393 of this subchapter, except §393.44 of this subchapter, and shall satisfy the braking performance requirements contained therein.

(d) *Coupling devices; fifth wheel mounting and locking.* The lower half of every fifth wheel mounted on any truck-tractor or dolly shall be securely affixed to the frame thereof by U-bolts of adequate size, securely tightened, or by other means providing at least equivalent security. Such U-bolts shall not be of welded construction. The installation shall be such as not to cause cracking, warping, or deformation of the frame. Adequate means shall be provided positively to prevent the shifting of the lower half of a fifth wheel on the frame to which it is attached. The upper half of every fifth wheel shall be fastened to the motor vehicle with at least the security required for the securing of the lower half to a truck-tractor or dolly. Locking means shall be provided in every fifth wheel mechanism including adapters when used, so that the upper and lower halves may not be separated without the operation of a positive manual release. A release mechanism operated by the driver from the cab shall be deemed to meet this requirement. On fifth wheels designed and constructed as to be readily separable, the fifth wheel locking devices shall apply automatically on coupling for any motor vehicle the date of manufacture of which is subsequent to December 31, 1952.

(e) *Tires.* Every motor vehicle shall be equipped with tires of adequate capacity to support its gross weight. No motor vehicle shall be operated on tires which have been worn so smooth as to expose any tread fabric or which have any other defect likely to cause failure. No vehicle shall be operated while transporting passengers while using any tire which does not have tread configurations on that part of the tire which is in contact with the road surface. No vehicle transporting passengers shall be operated with re-grooved, re-capped, or re-treaded tires on front wheels.



(f) *Passenger compartment.* Every motor vehicle transporting passengers, other than a bus, shall have a passenger compartment meeting the following requirements:

(1) *Floors.* A substantially smooth floor, without protruding obstructions more than two inches high, except as are necessary for securing seats or other devices to the floor, and without cracks or holes.

(2) *Sides.* Side walls and ends above the floor at least 60 inches high, by attachment of sideboards to the permanent body construction if necessary. Stake body construction shall be construed to comply with this requirement only if all six-inch or larger spaces between stakes are suitably closed to prevent passengers from falling off the vehicle.

(3) *Nails, screws, splinters.* The floor and the interior of the sides and ends of the passenger-carrying space shall be free of inwardly protruding nails, screws, splinters, or other projecting objects likely to be injurious to passengers or their apparel.

(4) *Seats.* On and after November 1, 1957, a seat shall be provided for each worker transported. The seats shall be: Securely attached to the vehicle during the course of transportation; not less than 16 inches nor more than 19 inches above the floor; at least 13 inches deep; equipped with backrests extending to a height of at least 36 inches above the floor, with at least 24 inches of space between the backrests or between the edges of the opposite seats when face to face; designed to provide at least 18 inches of seat for each passenger; without cracks more than two inches wide, and the exposed surfaces, if made of wood, planed or sanded smooth and free of splinters.

(5) *Protection from weather.* Whenever necessary to protect the passengers from inclement weather conditions, be equipped with a top at least 80 inches high above the floor and facilities for closing the sides and ends of the passenger-carrying compartment. Tarpaulins or other such removable devices for protection from the weather shall be secured in place.

(6) *Exit.* Adequate means of ingress and egress to and from the passenger space shall be provided on the rear or at the right side. Such means of ingress and egress shall be at least 18 inches wide. The top and the clear opening shall be at least 60 inches high, or as high as the side wall of the passenger space if less than 60 inches. The bottom shall be at the floor of the passenger space.

(7) *Gates and doors.* Gates or doors shall be provided to close the means of ingress and egress and each such gate or door shall be equipped with at least one latch or other fastening device of such construction as to keep the gate or door securely closed during the course of transportation; and readily operative without the use of tools.

(8) *Ladders or steps.* Ladders or steps for the purpose of ingress or egress shall be used when necessary. The maximum vertical spacing of footholds shall not exceed 12 inches, except that the lowest step may be not more than 18 inches above the ground when the vehicle is empty.

(9) *Hand holds.* Hand holds or devices for similar purpose shall be provided to permit ingress and egress without hazard to passengers.

(10) *Emergency exit.* Vehicles with permanently affixed roofs shall be equipped with at least one emergency exit having a gate or door, latch and hand hold as prescribed in paragraphs (f) (7) and (9) of this section and located on a side or rear not equipped with the exit prescribed in paragraph (f)(6) of this section.

(11) *Communication with driver.* Means shall be provided to enable the passengers to communicate with the driver. Such means may include telephone, speaker tubes, buzzers, pull cords, or other mechanical or electrical means.

(g) *Protection from cold.* Every motor vehicle shall be provided with a safe means of protecting passengers from cold or undue exposure, but in no event shall heaters of the following types be used:

(1) *Exhaust heaters.* Any type of exhaust heater in which the engine exhaust gases are conducted into or through any space occupied by persons or any heater which conducts engine compartment air into any such space.

(2) *Unenclosed flame heaters.* Any type of heater employing a flame which is not fully enclosed.

(3) *Heaters permitting fuel leakage.* Any type of heater from the burner of which there could be spillage or leakage of fuel upon the tilting or overturning of the vehicle in which it is mounted.

(4) *Heaters permitting air contamination.* Any heater taking air, heated or to be heated, from the engine compartment or from direct contact with any portion of the exhaust system; or any heater taking air in ducts from the outside atmosphere

to be conveyed through the engine compartment, unless said ducts are so constructed and installed as to prevent contamination of the air so conveyed by exhaust or engine compartment gases.

(5) Any heater not securely fastened to the vehicle.

### **§ 398.6 Hours of service of drivers; maximum driving time.**

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No person shall drive nor shall any motor carrier permit or require a driver employed or used by it to drive or operate for more than 10 hours in the aggregate (excluding rest stops and stops for meals) in any period of 24 consecutive hours, unless such driver be afforded eight consecutive hours rest immediately following the 10 hours aggregate driving. The term "24 consecutive hours" as used in this part means any such period starting at the time the driver reports for duty.

### **§ 398.7 Inspection and maintenance of motor vehicles.**

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Every motor carrier shall systematically inspect and maintain or cause to be systematically maintained, all motor vehicles and their accessories subject to its control, to insure that such motor vehicles and accessories are in safe and proper operating condition.

### **§ 398.8 Administration inspection of motor vehicles in operation.**

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(a) *Administration personnel authorized to perform inspections.* All persons designated as Special Agents of the Federal Motor Carrier Safety Administration, as detailed in appendix B of chapter III of this title, are authorized to enter upon and perform inspections of motor carrier's vehicles in operation.

(b) *Prescribed inspection report.* Form MCS 63, Driver-Equipment Compliance Check, shall be used to record findings from motor vehicles selected for final inspection by authorized Administration employees.

(c) *Motor vehicles declared "out of service".* (1) Authorized Administration employees shall declare and mark "out of service" any motor vehicle which by reason of its mechanical condition or loading is so imminently hazardous to operate as to be likely to cause an accident or a breakdown. Form MCS 64, "Out of Service Vehicle" sticker shall be used to mark vehicles "out of service."

(2) No motor carrier shall require or permit any person to operate nor shall any person operate any motor vehicle declared and marked, "out of service" until all repairs required by the "out of service notice" on Form MCS 63 have been satisfactorily completed. The term operate as used in this section shall include towing the vehicle; provided, however, that vehicles marked "out of service" may be towed away by means of a vehicle using a crane or hoist; and provided further, that the vehicle combination consisting of the emergency towing vehicle and the "out of service" vehicle meets the performance requirements of §393.52.

(3) No person shall remove the "Out of Service Vehicle" sticker from any motor vehicle prior to completion of all repairs required by the "out of service notice" on Form MCS 63.

(4) The person or persons completing the repairs required by the "out of service notice" shall sign the "Certification of Repairman" in accordance with the terms prescribed on Form MCS 63, entering the name of his/her shop or garage and the date and time the required repairs were completed. If the driver completes the required repairs, he/she shall sign and complete the "Certification of Repairman."

(d) *Motor carrier's disposition of Form MCS 63.* (1) Motor carriers shall carefully examine Forms MCS 63. Any and all violations or mechanical defects noted thereon shall be corrected. To the extent drivers are shown not to be in compliance with the Federal Motor Carrier Safety Regulations, appropriate corrective action shall be taken by the motor carrier.

(2) Motor carriers shall complete the "Motor Carrier Certification of Action Taken" on Form MCS 63 in accordance with the terms prescribed thereon. Motor carriers shall return Forms MCS 63 to the address indicated upon Form MCS 63 within fifteen (15) days following the date of the vehicle inspection.

[33 FR 19765, Dec. 25, 1968, as amended at 40 FR 44557, Sept. 29, 1975]

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Last updated: August 7, 2006

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### **PART 399—EMPLOYEE SAFETY AND HEALTH STANDARDS**

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**Authority:** 49 U.S.C. 31502; and 49 CFR 1.73.

**Source:** 44 FR 43732, July 26, 1979, unless otherwise noted.

**Editorial Note:** Nomenclature changes to part 399 appear at 66 FR 49874, Oct. 1, 2001.

**Subparts A–K [Reserved]**

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## Subpart L—Step, Handhold, and Deck Requirements for Commercial Motor Vehicles

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### § 399.201 Purpose and scope.

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This subpart prescribes step, handhold, and deck requirements on commercial motor vehicles. These requirements are intended to enhance the safety of motor carrier employees.

### § 399.203 Applicability.

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This subpart applies to all trucks and truck-tractors, having a high profile cab-over-engine (COE) configuration, for entrance, egress and back of cab access, manufactured on and after September 1, 1982.

[44 FR 43732, July 26, 1979, as amended at 46 FR 56799, Nov. 19, 1981]

### § 399.205 Definitions.

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*Cab-over-engine (COE)* A truck or truck-tractor having all, or the front portion, of the engine under the cab.

*COE—High profile* A COE having the door sill step above the height of the front tires.

*Deck plate* A horizontal surface designed to provide a person with stable footing for the performance of work such as the connection and disconnection of air and electrical lines, gaining access to permanently-mounted equipment or machinery or for similar needs.

*Door sill step* Any step normally protected from the elements by the cab door when closed.

*Effective peripheral grip* Any shaped surface, free of sharp edges, in which a full grasp can be made to secure a handhold by a person.

*Fingertip grasp* A handhold surface which provides a person contact restricted to finger segments 1 and/or 2 only; or which limits wrap-around closure of finger segment 1 with the palm of the hand to 90 degrees as shown in Illustration I.

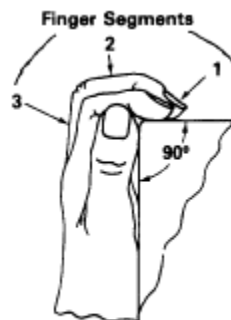


Illustration I  
Fingertip Grasp

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*Full grasp* A handhold surface which provides a person contact with finger segments 2 and 3 and which provides space for finger segment 1 to wrap around toward the palm of the hand beyond the 90-degree surface restriction shown in Illustration I. The handhold need not require contact between fingers and thumb. For example, the hand position shown in Illustration II qualifies as full grasp.

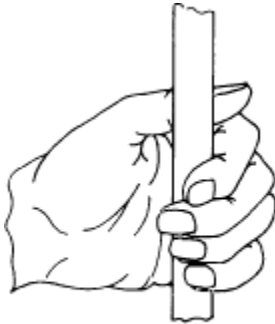


Illustration II  
Full Grasp

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*Ground* The flat horizontal surface on which the tires of a motor vehicle rest.

*Handhold* That which qualifies as providing full grasp if a person is able to find a hand position on the handhold which allows more than fingertip grasp.

*Handprint* The surface area contacted by the hand when grasping a handhold. The size of this area is the width of the hand across the metacarpal and half the circumference of the handhold. The hand breadth of the typical person is 88.9 millimeters (3.5 inches).

*Person* Any individual within the 5th percentile female adult through the 95th percentile male adult of anthropometric measures as described by the 1962 Health Examination Survey, "Weight, Height and Selected Body Dimensions of Adults, United States 1960–1962" which is incorporated by reference. It is Public Health Service publication No. 1000–Series 11–No. 8 and is for sale from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. When ordering use NTIS Accession No. PB 267174. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). This incorporation by reference was approved by the Director of the Federal Register on July 17, 1979. These materials are incorporated as they exist on the date of the approval and a notice of any change in these materials will be published in the Federal Register.

*Slip resistant material* Any material designed to minimize the accumulation of grease, ice, mud or other debris and afford protection from accidental slipping.

## § 399.207 Truck and truck-tractor access requirements.

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(a) *General rule.* Any person entering or exiting the cab or accessing the rear portion of a high profile COE truck or truck-tractor shall be afforded sufficient steps and handholds, and/or deck plates to allow the user to have at least 3 limbs in contact with the truck or truck-tractor at any time. This rule applies to intermediate positions as well as transition between intermediate positions. To allow for changes in climbing sequence, the step design shall include, as a minimum, one intermediate step of sufficient size to accommodate two feet. *Exception.* If air and electrical connections necessary to couple or uncouple a truck-tractor from a trailer are accessible from the ground, no step, handholds or deck plates are required to permit access to the rear of the cab.

(b) *Performance requirements.* All high profile COE trucks or truck-tractors shall be equipped on each side of the vehicle where a seat is located, with a sufficient number of steps and handholds to conform with the requirements of paragraph (a) of this section and shall meet the performance requirements:

(1) *Vertical height.* All measurements of vertical height shall be made from ground level with the vehicle at unladen weight.

(2) *Distance between steps.* The distance between steps, up to and including the door sill step, shall provide any person a stable resting position which can be sustained without body motion and by exerting no more arm force than 35 percent of the person's body weight per grasp during all

stages of entry and exit. This criterion applies to intermediate positions as well as transition between intermediate positions above ground level.

(i) When the ground provides the person foot support during entry or is the final step in the sequence during exit, and the step is 508 millimeters (20 inches) or more above ground, the stable resting position shall be achievable by the person using both hands to grasp the handhold(s) and requiring no more arm force than 35 percent of body weight per grasp.

(ii) The vertical height of the first step shall be no more than 609 millimeters (24 inches) from ground level.

(3) *Construction.* Each step or deck plate shall be of a slip resistant design which minimizes the accumulation of foreign material. Wherever practicable, a self-cleaning material should be used.

(4) *Foot accommodation.* Step depth or clearance and step width necessary to accommodate a climbing person are defined by using a minimum 127 millimeter (5 inch) diameter disc as shown in Illustration III.

(i) *Single foot accommodation.* The disc shall fit on a tread rung, or in a step recess, with no exterior overhang.

(ii) *Two-foot accommodation.* Two discs shall fit on a tread rung, or in a step recess, with no exterior overhang.

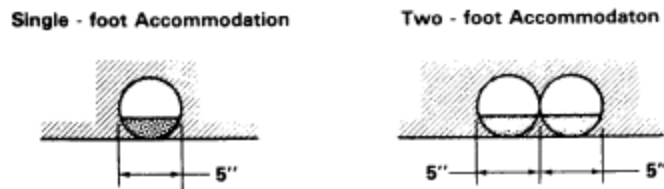


Illustration III  
Foot Accommodation

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Note: The 127 millimeter (5 inch) disc is only intended to test for a minimum depth and width requirement. The step need not retain the disc at rest.

(5) *Step strength.* Each step must withstand a vertical static load of at least 204 kilograms (450 pounds) uniformly distributed over any 127 millimeter (5 inch) increment of step width.

(6) *Handhold location.* A handhold must be located within the reach of any person entering or exiting the vehicle.

(7) *Exterior mounting specifications for handholds.* Each handhold, affixed to the exterior of the vehicle, shall have at least 38 millimeters (1.5 inches) clearance between the handhold and the surface to which it is mounted for the distance between its mounting points.

(8) *Handhold size and shape.* Each handhold shall be free of sharp edges (minimum 1 millimeter [0.04 inch] radius) and have an effective peripheral grip length that permits full grasp by any person.

(9) *Handhold strength.* Each handhold shall withstand a horizontal static load of at least 114 kilograms (250 pounds) uniformly distributed over the area of a hand print and applied away from the mounting surface.

(10) *Deck plates.* Deck plates shall be on the rear of a truck-tractor as necessary to couple or uncouple air and/or electrical connections.

(11) *Deck plate strength.* Each deck plate shall be capable of withstanding the vertical static load of at least 205 kilograms (450 pounds) uniformly distributed over a 127 millimeter (5 inch) diameter disc.

### § 399.209 Test procedures.

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(a) The force exerted on a handhold will be measured using a handheld spring scale or force transducer which can be attached to the vehicle and is free to rotate into alignment with a person's hand position.

(b) Hand grasp will be evaluated by observing the handgrip of any individual who conforms with the definition of "person" appearing in §399.205 of this subpart.

### § 399.211 Maintenance.

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All steps, handholds, and/or deck plates required by this subpart shall be adequately maintained to serve their intended function.

### Appendix A to Subchapter B of Chapter III [Reserved]

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### Appendix B to Subchapter B of Chapter III—Special Agents

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Cautionary note: This appendix relates only to Federal authority to enforce the regulations in this subchapter. In its present form, it has no application for the States and is not to be included in any adoption of these regulations by State authorities as a condition of eligibility for grants under part 350 of this chapter.

1. *Authority.* Persons appointed as special agents of the Federal Motor Carrier Safety Administration ("Administration"), are authorized to enter upon, to inspect, and to examine any and all lands, buildings, and equipment of motor carriers and other persons subject to the Interstate Commerce Act, the Department of Transportation Act, and other related Acts, and to inspect and copy any and all accounts, books, records, memoranda, correspondence, and other documents of such carriers and other persons.
2. *Compliance.* Motor carriers and other persons subject to these Acts shall submit their accounts, books, records, memoranda, correspondence, and other documents for inspection and copying, and they shall submit their lands, buildings, and equipment for examination and inspection, to any special agent of the Administration upon demand and display of an Administration credential identifying him/her as a special agent.
3. *Definition of Special Agent.* Special agents are Federal Motor Carrier Safety Administration (FMCSA) employees who are identified by credentials issued by the FMCSA authorizing them to enforce 42 U.S.C. 4917 and to exercise relevant authority of the Secretary of Transportation under 49 U.S.C. 113, chapters 5, 51, 57, 131–149, 311, 313, and 315 and other statutes, as delegated to FMCSA by 49 CFR 1.73, and under regulations issued on the authority of those statutes. Special agents are authorized to inspect and copy records and to inspect and examine land, buildings, and equipment in the manner and to the extent provided by law.

#### 4. *Facsimile of the Administration Credential:*

United States of America

Department of Transportation Federal Motor Carrier Safety Administration

This is to certify that \_\_\_\_\_ whose photograph and signature appear hereon is duly accredited as \_\_\_\_\_ with authority to enter upon, to inspect, and examine lands, buildings, and equipment, and to inspect and copy records and papers of carriers and other persons, in performance of his/her duties under the Department of Transportation Act, related acts, and regulations of the Department.

By direction of the Secretary

(Certifying Authority)      (Bearer)

(49 U.S.C. 504, 5121, 14122, 31502 and 31503; and 49 CFR 1.73)

[35 FR 1016, Jan. 24, 1970 as amended at 36 FR 16067, Aug. 19, 1971; 43 FR 20011, May 10, 1978; 44 FR 46425, July 10, 1980; 49 FR 38290, Sept. 28, 1984; 60 FR 38749, July 28, 1995; 61 FR 1843, Jan. 24, 1996]

## **Appendixes C–E to Subchapter B of Chapter III [Reserved]**

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## **Appendix F to Subchapter B of Chapter III—Commercial Zones**

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“Note: The text of these definitions is identical to the text of 49 CFR Part 1048, revised as of October 1, 1975, which is no longer in print.”

Commercial Zones

Sec.

1 New York, N.Y.

2 Chicago, Ill.

3 St. Louis, Mo.-East St. Louis, Ill.

4 Washington, D.C.

5 Los Angeles, Calif., and contiguous and adjacent municipalities.

6 Philadelphia, Pa.

7 Cincinnati, Ohio

8 Kansas City, Mo.-Kansas City, Kans.

9 Boston, Mass.

10 Davenport, Iowa; Rock Island and Moline, Ill.

11 Commercial zones of municipalities in New Jersey within 5 miles of New York, N.Y.

12 Commercial zones of municipalities in Westchester and Nassau Counties, N.Y.

13 Tucson, Ariz.

14 Albuquerque, N. Mex.

18 Ravenswood, W. Va.

19 Lake Charles, La.



- 20 Syracuse, N.Y.
- 21 Baltimore, Md.
- 22 Cleveland, Ohio.
- 23 Detroit, Mich.
- 24 Seattle, Wash.
- 25 Albany, N.Y.
- 26 Minneapolis-St. Paul, Minn.
- 27 New Orleans, La.
- 28 Pittsburgh, Pa.
- 29 Portland, Oreg.
- 30 Vancouver, Wash.
- 31 Charleston, S.C.
- 32 Charleston, W. Va.
- 33 Memphis, Tenn.
- 34 Houston, Tex.
- 35 Pueblo, Colo.
- 36 Warren, Ohio
- 37 Louisville, Ky.
- 38 Sioux City, Iowa.
- 39 Beaumont, Tex.
- 40 Metropolitan Government of Nashville and Davidson County, Tenn.
- 41 Consolidated City of Indianapolis, Ind.
- 42 Lexington-Fayette Urban County, Ky.
- 43 Definitions.
- 44 Commercial zones determined generally, with exceptions.
- 45 Controlling distances and population data.

*Section 1 New York, N.Y.*

(a) The application of §372.241 Commercial Zones determined generally, with exceptions, is hereby extended to New York, N.Y.

(b) The exemption provided by section 203(b)(8) of the Interstate Commerce Act, of transportation by motor vehicle, in interstate or foreign commerce, performed wholly within the zone the limits of which are defined in paragraph (a) of this section, is hereby removed as to all such transportation except:

(1) Transportation which is performed wholly within the following territory: The area within the corporate limits of the cities of New York, Yonkers, Mount Vernon, North Pelham, Pelham, Pelham Manor, Great Neck Estates, Floral Park, and Valley Stream, N.Y., and Englewood, N.J.; the area within the borough limits of Alpine, Tenafly, Englewood Cliffs, Leonia, Fort Lee, Edgewater, Cliffside Park, Fairview, Palisades Park, and Ridgefield, Bergen County, N.J.; and that part of Hudson County, N.J., east of Newark Bay and the Hackensack River;

(2) Transportation which is performed in respect of a shipment which has had a prior, or will have a subsequent movement by water carrier, and which is performed wholly between points named in subparagraph (1) of this paragraph, on the one hand, and, on the other, those points in Newark and Elizabeth, N.J., identified as follows: All points in that area within the corporate limits of the cities of Newark and Elizabeth, N.J., west of Newark Bay and bounded on the south by the main line of the Central Railroad of New Jersey, on the west by the Newark & Elizabeth Branch of the Central Railroad Company of New Jersey, and on the north by the property line of the Penn Central Transportation Company.

(3) Transportation which is performed in respect of a shipment by rail carrier, and which is performed wholly between points named in subparagraph (1) of this paragraph, on the one hand, and, on the other,

(a) Those portions of Kearny, N.J., within an area bounded on the north by the main line of the Jersey City Branch of the Penn Central Transportation Co., on the south and east by Fish House Road and Pennsylvania Avenue, and on the west by the property line of the Penn Central Transportation Co. Truck-Train Terminal.

(b)(i) That portion of Newark, N.J., within an area bounded on the north by South Street and Delancey Street, on the east by Doremus Avenue, on the south by the freight right-of-way of the Penn Central Transportation Co. (Waverly Yard, Newark, N.J., to Greenville Piers, Jersey City, N.J., line), and on the west by the Penn Central Transportation Co.'s Hunter Street produce yard, and (ii) that portion of Newark, N.J., within an area bounded on the north by Poinier Street, on the east by Broad Street, on the south by the passenger right-of-way of the Penn Central Transportation Co.'s main line and on the west by Frelinghuysen Avenue.

(c) That portion of Port Reading, N.J., within an area bounded on the east by the Arthur Kill, on the south by the right-of-way of the Reading Co., on the west by Cliff Road, and on the north by Woodbridge-Carteret Road, and

(d) That portion of Elizabeth, N.J., within an area bounded by a line extending from Newark Bay westward along Trumbull Street to its intersection with Division Street; thence northward along Trumbull Street to its intersection with East North Avenue; thence eastward along East North Avenue to its intersection with the New Jersey Turnpike, thence along the New Jersey Turnpike to the Elizabeth Channel; thence easterly along the Elizabeth Channel to Newark Bay; thence along the western shore of Newark Bay to the point of beginning.

*Sec. 2 Chicago, Ill.*

The zone adjacent to and commercially a part of Chicago, Ill., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points as follows:

The area within the corporate limits of Chicago, Evanston, Oak Park, Cicero, Berwyn, River Forest, Willow Springs, Bridgeview, Hickory Hills, Worth, Homewood, and Lansing, Ill.; the area within the township limits of Niles, Maine, Leyden, Norwood Park, Proviso, Lyons, Riverside, Stickney, Worth, Calumet, Bremen, and Thornton Townships, Cook County, Ill.; the area comprised of that part of Lemont Township, Cook County, and that part of Downers Grove Township, Du Page County, Ill., bounded by a line beginning at the intersection of Archer Avenue and the southern corporate limits of Willow Springs, Ill., and extending in a southwesterly direction along Archer Avenue to its junction with Chicago Joliet Road (Sag Lemont Highway), thence in a westerly direction over Chicago Joliet Road to its junction with Walker Road, thence directly north along an imaginary line to the southern shoreline of the Chicago Sanitary and Ship Canal, thence in a northeasterly direction along said shoreline to the corporate limits of Willow Springs, including points on the indicated portions of the highways specified; the area within Burr Ridge, Du Page County, bounded by a line beginning at the intersection of County Line Road and Frontage Road, thence southwesterly along Frontage Road to its intersection with Garfield Street, thence northerly along Garfield Street to its junction with 74th Street, thence westerly along an imaginary line to the junction of 74th Street and Grant Street, thence southerly along Grant Street to its junction with 75th Street, thence westerly along 75th Street to its junction with Brush Hill Road, thence southerly along Brush Hill Road to its junction with Frontage Road, thence northeasterly along Frontage Road to its junction with County Line Road; and the area within the corporate limits of Hammond, Whiting, East Chicago, and Gary, Ind.

*Sec. 3 St. Louis, Mo.-East St. Louis, Ill.*

(a) The zone adjacent to and commercially a part of St. Louis, Mo.-East St. Louis, Ill, within which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management or arrangement for a continuous carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points as follows: (1) All points within the corporate limits of St. Louis, Mo.; (2) all points in St. Louis County, Mo., within a line drawn 0.5 mile south, west, and north of the following line:—Beginning at the Jefferson Barracks Bridge across the Mississippi River and extending westerly along Missouri Highway 77 to its junction with U.S. Highway 61 Bypass, thence along U.S. Highway 61 Bypass to its junction with U.S. Highway 66, thence westerly along U.S. Highway 66 to its junction with Bowles Avenue, thence northerly along Bowles Avenue, actual or projected, to the Meramec River, thence easterly along the south bank of the Meramec River to a point directly south of the western boundary of Kirkwood, thence across the Meramec River to and along the western boundary of Kirkwood to Marshall Road, thence westerly along Marshall Road to its junction with Treecourt Avenue, thence northerly along Treecourt Avenue to its junction with Big Bend Road, thence easterly along Big Bend Road to the western boundary of Kirkwood, thence northerly along the western boundary of Kirkwood to its junction with Dougherty Ferry Road, thence westerly along Dougherty Ferry Road to its junction with Interstate Highway 244, thence northerly along Interstate Highway 244 to its junction with Manchester Road, thence easterly along Manchester Road to its junction with the northwest corner of Kirkwood, thence along the western and northern boundaries of Kirkwood to the western boundary of Huntleigh, Mo., thence along the western and northern boundaries of Huntleigh to its junction with Lindbergh Boulevard, thence northerly along Lindbergh Boulevard to its junction with Lackland Avenue, thence in a westerly direction along Lackland Avenue to its junction with the right-of-way of the proposed Circumferential Expressway (Interstate Highway 244), thence in a northerly direction along said right-of-way to its junction with the right-of-way of the Chicago, Rock Island and Pacific Railroad, thence in an easterly direction along said right-of-way to its junction with Dorsett Road, thence in an easterly direction along Dorsett Road to its junction with Lindbergh Boulevard, thence in a northerly direction along Lindbergh Boulevard to its junction with St. Charles Rock Road, thence westerly along St. Charles Rock Road to its junction with the Missouri River, thence northerly along the east shore of the Missouri River to its junction with the Norfolk and Western Railway Co. right-of-way, thence easterly along the southern boundary of the Norfolk and Western Railway Co. right-of-way to Lindbergh Boulevard, thence in an easterly direction along Lindbergh Boulevard to the western boundary of St. Ferdinand (Florissant), Mo., thence along the western, northern, and eastern boundaries of St. Ferdinand to junction Interstate Highway 270, and thence along Interstate Highway 270 to the corporate limits of St. Louis (near Chain of Rocks Bridge); and (3) all points within the corporate limits of East St. Louis, Belleville, Granite City, Madison, Venice, Brooklyn, National City, Fairmont City, Washington Park, and Sauget, Ill.; that part of the village of Cahokia, Ill., bounded by Illinois Highway 3 on the east, First Avenue and Red House (Cargill) Road on the south and southwest, the east line of the right-of-way of the Alton and Southern Railroad on the west, and the corporate limits of Sauget, Ill., on the northwest and north; that part of Centerville, Ill., bounded by a line beginning at the junction of 26th Street and the corporate limit of East St. Louis, Ill., and extending northeasterly along 26th Street to its junction with Bond Avenue, thence southeasterly along Bond Avenue to its junction with Owen Street, thence southwesterly along Owen Street to its junction with Church Road, thence southeasterly along Church Road to its junction with Illinois Avenue, thence southwesterly along Illinois Avenue to the southwesterly side of the right-of-way of the Illinois Central Railroad Co., thence along the southwesterly side of the right-of-way of the Illinois Central Railroad Co. to the corporate limits of East St. Louis, Ill, thence along the corporate limits of East St. Louis, Ill., to the point of beginning; and that area bounded by a line commencing at the intersection of the right-of-way of the Alton and Southern Railroad and the Madison, Ill., corporate limits near 19th Street, and extending east and south along said right-of-way to its intersection with the right-of-way of Illinois Terminal Railroad Co., thence southwesterly along the Illinois Terminal Railroad Co. right-of-way to its intersection with Illinois Highway 203, thence northwesterly along said highway to its intersection with the Madison, Ill., corporate boundary near McCambridge Avenue, thence northerly along the Madison, Ill., corporate boundary to the point of beginning.

(b) The exemption provided by section 203(b)(8) of the Interstate Commerce Act in respect of transportation by motor vehicle, in interstate or foreign commerce, between Belleville, Ill., on the one hand, and, on the other, any other point in the commercial zone, the limits of which are defined in paragraph (a) of this section, is hereby removed, and the said transportation is hereby subjected to all applicable provisions of the Interstate Commerce Act.

*Sec. 4 Washington, DC.*

The zone adjacent to and commercially a part of Washington, DC, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.A. 303(b)(8)) includes and it is comprised of all as follows:

Beginning at the intersection of MacArthur Boulevard and Falls Road (Maryland Highway 189) and extending northeasterly along Falls Road to its junction with Scott Drive, thence west on Scott Drive to its junction with Viers Drive, thence west on Viers Drive to its junction with Glen Mill Road, thence northeast on Glen Mill Road to its junction with Maryland Highway 28, thence west on Maryland Highway 28 to its junction with Shady Grove Road, thence northeast on Shady Grove Road approximately 2.7 miles to Crabbs Branch, thence southeasterly along the course of Crabbs Branch to Rock Creek, thence southerly along the course of Rock Creek to Viers Mill Road (Maryland Highway 586), thence southeasterly along Viers Mill Road approximately 0.3 mile to its junction with Aspen Hill Road, thence northeasterly along Aspen Hill Road to its junction with Brookeville Road (Maryland Highway 97), thence southeasterly along Brookeville Road to its junction with Maryland Highway 183, thence northeasterly along Maryland Highway 183 to Colesville, Md., thence southeasterly along Beltsville Road to its junction with Powder Mill Road (Maryland Highway 212), thence easterly over Powder Mill Road to its junction with Montgomery Road, thence northeasterly along Montgomery Road, approximately 0.2 mile, to its junction with an unnumbered highway extending northeasterly to the north of Ammendale Normal Institute, thence along such unnumbered highway for a distance of about 2.2 miles to its junction somewhat north of Virginia Manor, Md., with an unnumbered highway extending easterly through Muirkirk, Md., thence along such unnumbered highway through Muirkirk to its junction, approximately 1.8 miles east of the Baltimore and Ohio Railroad, with an unnumbered highway, thence southwesterly along such unnumbered highway for a distance of about 0.5 mile to its junction with an unnumbered highway, thence southeasterly along such unnumbered highway

through Springfield and Hillmeade, Md., to its junction with Defense Highway (U.S. Highway 50), thence southwesterly along Defense Highway approximately 0.8 mile to its junction with Enterprise Road (Maryland Highway 556), thence southerly over Enterprise Road to its junction with Central Avenue (Maryland Highway 214), thence westerly over Central Avenue about 0.5 mile to its crossing of Western Branch, thence southerly down the course of Western Branch to Maryland Highway 202, thence westerly approximately 0.3 mile along Maryland Highway 202 to its junction with White House Road, thence southwesterly along White House Road to its junction with Maryland Highway 221, thence southeasterly along Maryland Highway 221 to its junction with Maryland Highway 4, thence westerly along Maryland Highway 4 to the boundary of Andrews Air Force Base, thence south and west along said boundary to Brandywine Road (Maryland Highway 5), thence northwesterly along Maryland Highway 5 to its junction with Maryland Highway 337, thence southwesterly along Maryland Highway 337 to its junction with Maryland Highway 224, thence southerly along Maryland Highway 224 to a point opposite the mouth of Broad Creek, thence due west across the Potomac River to the west bank thereof, thence southerly along the west bank of the Potomac River to Gunston Cove, thence up the course of Gunston Cove to Pohick Creek, thence up the course of Pohick Creek to Virginia Highway 611, thence southwesterly along Virginia Highway 611 to the Fairfax-Prince William County line, thence along said county line to Virginia Highway 123, thence northerly along Virginia Highway 123 to its junction with Virginia Highway 636, thence northeasterly along Virginia Highway 636 to its junction with Virginia Highway 638, thence northwesterly along Virginia Highway 638 to its junction with Virginia Highway 620, thence westerly along Virginia Highway 620 to its junction with Virginia Highway 655, thence northeasterly along Virginia Highway 655 to its junction with U.S. Highway 211, thence westerly along U.S. Highway 211 to its junction with Virginia Highway 608, thence northerly along Virginia Highway 608 to its junction with U.S. Highway 50, thence westerly along U.S. Highway 50 to the Fairfax-Loudoun County line, thence northeasterly along said county line to its intersection with Dulles International Airport, thence along the southern, western, and northern boundaries of said airport to the Fairfax-Loudoun County line (at or near Dulles Airport Access Road), thence northeasterly along said county line to its junction with Virginia Highway 7, thence southeasterly along Virginia Highway 7 to its junction with Virginia Highway 193, thence along Virginia Highway 193 to its junction with Scott Run Creek, thence northerly down the course of Scott Run Creek to the Potomac River, thence due north across the river to MacArthur Boulevard to its junction with Maryland Highway 189, the point of beginning.

*Sec. 5 Los Angeles, Calif., and contiguous and adjacent municipalities.*

(a) The exemption provided by section 203(b)(8) of Part II of the Interstate Commerce Act to the extent it affects transportation by motor vehicle, in interstate or foreign commerce, performed wholly within Los Angeles, Calif., or wholly within any municipality contiguous or adjacent to Los Angeles, Calif., or wholly a part of Los Angeles, as defined in paragraph (b) of this section, or wholly within the zone adjacent to and commercially a part of the San Pedro, Wilmington, and Terminal Island Districts of Los Angeles and Long Beach, as defined in paragraph (c) of this section, or wholly within the zone of any independent municipality contiguous or adjacent to Los Angeles, as determined under §372.241, or otherwise, between any point in Los Angeles County, Calif., north of the line described below, on the one hand, and, on the other, any point in Los Angeles County, Calif., south thereof is hereby removed and the said transportation is hereby subjected to all the applicable provisions of the Interstate Commerce Act:

Beginning at the Pacific Ocean, and extending easterly along the northern and eastern corporate limits of Manhattan Beach to the northern corporate limits of Redondo Beach, thence along the northern and eastern corporate limits of Redondo Beach to the intersection of Inglewood Avenue and Redondo Beach Boulevard, thence along Redondo Beach Boulevard to the corporate limits of Torrance, thence along the northwestern and eastern corporate limits of Torrance to 182d Street, thence along 182d Street, Walnut, and Main Streets to Alondra Boulevard, thence along Alondra Boulevard to its intersection with Dwight Avenue, thence southerly along Dwight Avenue and an imaginary straight line extending southward to Greenleaf Boulevard, thence eastward along Greenleaf Boulevard to the northwestern corner of the corporate limits of Long Beach, thence along the northern and eastern corporate limits of Long Beach to Artesia Boulevard, thence east on Artesia Boulevard to the Los Angeles-Orange County line.

(b) For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Los Angeles and contiguous municipalities (except the San Pedro, Wilmington, and Terminal Island districts of Los Angeles and Long Beach, Calif.), in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt from regulation under section 203(b)(8) of the act, is hereby defined to include the area of a line extending in a generally northwesterly and northerly direction from the intersection of Inglewood Avenue and Redondo Beach Boulevard along the eastern and northern corporate limits of Redondo Beach, Calif., to the eastern corporate limits of Manhattan Beach, Calif., thence along the eastern and northern corporate limits of Manhattan Beach to the Pacific Ocean, thence along the shoreline of the Pacific Ocean to the western corporate limits of Los Angeles at a point east of Topanga Canyon, and thence along the western corporate limits of Los Angeles to a point near Santa Susana Pass; south of a line extending in a generally easterly direction from a point near Santa Susana Pass along the northern corporate limits of Los Angeles to the eastern corporate limits of Burbank, Calif., thence along the eastern corporate limits of Burbank to the northern corporate limits of Glendale, Calif., and thence along the northern corporate limits of Glendale and Pasadena, Calif., to the northeastern corner of Pasadena; west of a line extending in a generally southerly and southwesterly direction from the northeastern corner of Pasadena along the eastern and a portion of the southern corporate limits of Pasadena to the eastern corporate limits of San Marino, Calif., thence along the eastern corporate limits of San Marino and the eastern and a portion of the southern corporate limits of Alhambra, Calif., to the western corporate limits of Monterey Park, Calif., and the western corporate limits of Montebello, Calif., thence along the western corporate limits of Montebello, Calif., to the Rio Hondo, and the Los Angeles River to the northern corporate limits of Long Beach; and north of a line extending in a generally westerly direction from the Los Angeles River along the northern corporate limits of Long Beach and thence along Greenleaf Boulevard to its intersection with an imaginary straight line extending southward from Dwight Avenue, thence north on the imaginary straight line extending southward from Dwight Avenue, and thence northerly along Dwight Avenue to Alondra Boulevard, thence west along Alondra Boulevard, Main, Walnut, and 182d Streets to the eastern corporate limits of Torrance, thence along a portion of the eastern and the northwestern corporate limits of Torrance to Redondo Beach Boulevard, and thence along Redondo Beach Boulevard to Inglewood Avenue.

(c) For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of the San Pedro, Wilmington, and Terminal Island districts of Los Angeles and Long Beach in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt from regulation under section 203(b)(8) of the act, is hereby defined to include the area east of a line extending in a generally northerly and northwesterly direction from the Pacific Ocean along the western corporate limits of Los Angeles to 258th Street, thence along 258th Street to the eastern corporate limits of Torrance, and thence along a portion of the eastern, and along the southern and western, corporate limits of Torrance to the northwestern corner of Torrance, south of a line extending in a generally easterly direction from the northwestern corner of Torrance along the northwestern and a portion of the eastern corporate limits of Torrance to 182d Street, thence along 182d, Walnut, Main, and Alondra Boulevard to its intersection with Dwight Avenue, thence southerly along Dwight Avenue and an imaginary straight line extending southward from Dwight Avenue to Greenleaf Boulevard and thence along Greenleaf Boulevard and the northern corporate limits of Long Beach to the northeastern corner of Long Beach; west of the eastern corporate limits of Long Beach; and north of the southern corporate limits of Long Beach and Los Angeles.

*Sec. 6 Philadelphia, Pa.*

The zone adjacent to and commercially a part of Philadelphia, Pa., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

(a) The area within Pennsylvania included within the corporate limits of Philadelphia and Bensalem and Lower Southampton Townships in Bucks County; Conshohocken and West Conshohocken, Pa., and Lower Moreland, Abington, Cheltenham, Springfield, Whitmarsh, and Lower Merion Townships in Montgomery County; an area in Upper Dublin Township, Montgomery County, bounded by a line beginning at the intersection of Pennsylvania Avenue and Fort Washington Avenue and extending northeast along Fort Washington Avenue to its junction with Susquehanna Road, thence southeast along Susquehanna Road to its junction with the right-of-way of the Pennsylvania Railroad Company, thence southwest along the right-of-way of the Pennsylvania Railroad Company to Pennsylvania Avenue, thence northwest along Pennsylvania Avenue to its junction with Fort Washington Avenue, the point of beginning; Haverford Township in Delaware County; and an area in Delaware County south and east of a line extending southward from the intersection of the western and northern boundaries of Upper Darby Township along Darby Creek to Bishop Avenue, thence south along Bishop Avenue to Baltimore Pike, thence west along Baltimore Pike to Pennsylvania Highway 320, thence south along Pennsylvania Highway 320 to the corporate limits of Chester, thence along the northern corporate limit of Chester in a westerly direction to the eastern boundary of Upper Chichester Township, thence south to the southern boundary of said township along the eastern boundary thereof, and thence west along the southern boundary of said township to the Delaware State line, and thence south along the Delaware State line to the Delaware River, and

(b) The area in New Jersey included in the corporate limits of Camden, Gloucester City, Woodlynne, Merchantville, and Palmyra Boroughs, and the area included in Pennsauken Township in Camden County.

*Sec. 7 Cincinnati, Ohio.*

The zone adjacent to and commercially a part of Cincinnati, Ohio, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuing carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 203(b)(8)), includes and is comprised of all points as follows:

Addyston, Ohio.  
Cheviot, Ohio.  
Cincinnati, Ohio.  
Cleves, Ohio.  
Elmwood Place, Ohio.  
Fairfax, Ohio.  
Mariemont, Ohio.  
North Bend, Ohio.  
Norwood, Ohio.  
St. Bernard, Ohio.  
Covington, Ky.  
Newport, Ky.  
Cold Spring, Ky.

That part of Ohio bounded by a line commencing at the intersection of the Colerain-Springfield Township line and corporate limits of Cincinnati, Ohio, and extending along said township line in a northerly direction to its intersection with the Butler-Hamilton County line, thence in an easterly direction along said county line to its intersection with Ohio Highway 4, thence in a northerly direction along Ohio Highway 4 to its intersection with Seward Road, thence in a northerly direction along said road to its intersection with Port Union Road, thence east along Port Union Road to the Fairfield Township-Union Township line, thence northward along said township line to its intersection with the right-of-way of the Pennsylvania

Railroad Co., thence southeasterly along the right-of-way of the Pennsylvania Railroad Co. to its intersection with Princeton-Glendale Road (Ohio Highway 747), thence southward along said road to its intersection with Mulhauser Road, thence in an easterly direction along said road to the terminus thereof west of the tracks of the Pennsylvania Railroad Co., thence continue in an easterly direction in a straight line to Allen Road, thence along the latter to the junction thereof with Cincinnati-Dayton Road, thence in a southerly direction along Cincinnati-Dayton Road, to the Butler, Hamilton County line, thence along said county line to the Warren-Hamilton County line in an easterly direction to the Symmes-Sycamore Township line, thence in a southerly direction along the Symmes-Sycamore Township line to its intersection with the Columbia Township line, thence in a westerly direction along Sycamore-Columbia Township line to Madeira Township, thence in a clockwise direction around the boundary of Madeira Township to the Sycamore-Columbia Township line, thence in a westerly direction along said township line to Silverton Township, thence in a southerly direction along said corporate limits to junction with Redbank Road, thence in a southerly direction over Redbank Road to the Cincinnati Corporate limits.

That part of Kenton County, Ky., lying on and north of a line commencing at the intersection of the Kenton-Boone County line and Dixie Highway (U.S. Highways 25 and 42), and extending over said highway to the corporate limits of Covington, Ky., including communities on the described line.

That part of Campbell County, Ky., lying on and north of a line commencing at the southern corporate limits of Newport, Ky., and extending along Licking Pike (Kentucky Highway 9) to junction with Johns Hill Road, thence along Johns Hill Road to junction with Alexandria Pike (U.S. Highway 27), thence northward along Alexandria Pike to junction with River Road (Kentucky Highway 445), thence over the latter to the Ohio River, including communities on the described line.

That part of Boone County, Ky., bounded by a line beginning at the Boone-Kenton County line west of Erlanger, Ky., and extending in a northwesterly direction along Donaldson Highway to its intersection with Zig-Zag Road, thence along Zig-Zag Road to its intersection with Kentucky Highway 18, thence along Kentucky Highway 18 to its intersection with Kentucky Highway 237, thence along Kentucky Highway 237 to its intersection with Kentucky Highway 20, and thence easterly along Kentucky Highway 20 to the Boone-Kenton County line.

That part of Boone and Kenton Counties, Ky., bounded by a line commencing at the intersection of the Boone-Kenton County line and U.S. Highway 42, and extending in a southwesterly direction along U.S. Highway 42 to its junction with Gunpowder Road, thence southerly along Gunpowder Road to its junction with Sunnybrook Road, thence easterly along Sunnybrook Road to its junction with Interstate Highway 75, thence in a straight line in a northeasterly direction to Richardson Road, thence in an easterly direction over Richardson Road to its junction with Kentucky State Route 1303, thence in a northerly direction over Kentucky State Route 1303 to the southern boundary of Edgewood, Kenton County, Ky.

#### *Sec. 8 Kansas City, Mo.-Kansas City, Kans.*

The zone adjacent to and commercially a part of Kansas City, Mo.-Kansas City, Kans., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuing carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points as follows:

Beginning on the north side of the Missouri River at the western boundary line of Parkville, Mo., thence along the western and northern boundaries of Parkville to the Kansas City, Mo., corporate limits, thence along the western, northern, and eastern corporate limits of Kansas City, Mo., to its junction with U.S. Bypass 71 (near Liberty, Mo.), thence along U.S. Bypass 71 to Liberty, thence along the northern and eastern boundaries of Liberty to its junction with U.S. Bypass 71 south of Liberty, thence south along U.S. Bypass 71 to its junction with the Independence, Mo., corporate limits, thence along the eastern Independence, Mo., corporate limits to its junction with Interstate Highway 70, thence along Interstate Highway 70 to its junction with the Blue Springs, Mo., corporate limits, thence along the western, northern, and eastern corporate limits of Blue Springs, Mo., to its junction with U.S. Highway 40, thence east along U.S. Highway 40 to its junction with Brizen-Dine Road, thence south along the southerly extension of Brizen-Dine Road to its junction with Missouri Highway AA, thence along Missouri Highway AA to its junction with the Blue Springs, Mo., corporate limits, thence along the southern and western corporate limits of Blue Springs, Mo., to its junction with U.S. Highway 40, thence west along U.S. Highway 40 to its junction with the Lee's Summit, Mo., corporate limits.

Thence along the eastern Lee's Summit corporate limits to the Jackson-Cass County line, thence west along Jackson-Cass County line to the eastern corporate limits of Belton, Mo., thence along the eastern, southern, and western corporate limits of Belton to the western boundary of Richards-Gebaur Air Force Base, thence along the western boundary of said Air Force Base to Missouri Highway 150, thence west along Missouri Highway 150 to the Kansas-Missouri State line, thence north along the Kansas-Missouri State line, to 110th Street, thence west along 110th Street to its junction with U.S. Highway 69, thence north along U.S. Highway 69 to its junction with 103d Street, thence west along 103d Street to its junction with Quivera Road (the corporate boundary of Lenexa, Kans.), thence along the eastern and southern boundaries of Lenexa to Black Bob Road, thence south along Black Bob Road to 119th Street, thence east along 119th Street to the corporate limits of Olathe, Kans., thence south and east along the Olathe corporate limits to Schlagel Road, thence south along Schlagel Road to Olathe Morse Road, thence west along Olathe Morse Road to the northeast corner of Johnson County Airport, thence south, west, and north along the boundaries of said airport to Pflumm Road, thence north along Pflumm Road to its junction with Olathe Martin City Road, thence west along Olathe Martin City Road to its junction with Murden Road, thence south along Murden Road to its junction with Olathe Morse Road (the corporate boundary of Olathe, Kans.), thence west and north along said corporate boundary to its intersection with U.S. Highway 56, thence southwest along U.S. Highway 56 to its junction with 159th Street.

Thence west along 159th Street to its junction with the Johnson County Industrial Airport, thence south, west, north and east along the boundaries of said airport to the point of beginning, on 159th Street, thence, east along 159th Street to its junction with U.S. Highway 56, thence northeast along U.S. Highway 56 to its junction with Parker Road, thence north along Parker Road to the northern boundary of Olathe, thence east and north along the northern corporate limits of Olathe to Pickering Road, thence north along Pickering Road to 107th Street (the corporate boundary of Lenexa, Kans.), thence along the western and northern boundaries of Lenexa to Plumm Road, thence north along Plumm Road to its junction with Kansas Highway 10, thence along Kansas Highway 10 to its junction with Kansas Highway 7, thence along an imaginary line due west across the Kansas River to the Wyandotte County-Leavenworth County line (142d Street) at Loring, Kans., thence westerly along County Route No. 82, a distance of three-fourths of a mile to the entrance of the facilities at Mid-Continent Underground Storage, Loring, thence from Loring in a northerly direction along Loring Lane and Lindwood Avenue to the southern boundary of Bonner Springs, Kans.

Thence along the southern, western, and northern boundaries of Bonner Springs to its intersection with Kansas Highway 7, thence southeast along Kansas Highway 7 to its junction with Kansas Highway 32, thence east on Kansas Highway 32 to the corporate boundary of Kansas City, Kans., thence north, west, and east along the corporate boundaries of Kansas City, Kans., to its junction with Cernech Road and Pomeroy Drive, thence northwesterly along Pomeroy Drive to its junction with 79th Street, thence along 79th Street to its junction with Walcotte Drive at Pomeroy, Kans., thence due west 1.3 miles to its junction with an unnamed road, thence north along such unnamed road to the entrance of Powell Port facility, thence due north to the southern bank of the Missouri River, thence east along the southern bank of Missouri River to a point directly across from the western boundary of Parkville, Mo., thence across the Missouri River to the point of beginning.

*Sec. 9 Boston, Mass.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Boston, Mass., and contiguous municipalities in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act from regulation, is hereby defined to include the following:

Boston, Mass.  
Winthrop, Mass.  
Chelsea, Mass.  
Revere, Mass.  
Everett, Mass.  
Malden, Mass.  
Medford, Mass.  
Somerville, Mass.  
Cambridge, Mass.  
Watertown, Mass.  
Brookline, Mass.  
Newton, Mass.  
Needham, Mass.  
Dedham, Mass.  
Milton, Mass.  
Quincy, Mass.

*Sec. 10 Davenport, Iowa; Rock Island and Moline, Ill.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zones adjacent to and commercially a part of Davenport, Iowa, Rock Island and Moline, Ill., in which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such municipalities or zones, will be partially exempt from regulation under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) are hereby determined to be coextensive and to include and to be comprised of the following:

(a) All points within the corporate limits of the city of Davenport and the city of Bettendorf, and in Davenport Township, Iowa.

(b) All points north of Davenport Township within that portion of Sheridan Township, Iowa, bounded by a line as follows: Beginning at the points where U.S. Highway 61 crosses the Davenport-Sheridan Township line and extending northward along U.S. Highway 61 to the right-of-way of the Chicago, Milwaukee, St. Paul & Pacific Railroad Co., thence northwesterly along said right-of-way to its junction with the first east-west unnumbered highway, thence westerly approximately 0.25 mile to its junction with a north-south unnumbered highway, thence southerly along such unnumbered highway to the northeast corner of Mount Joy Airport, thence along the northern and western boundaries of said airport to the southwestern corner thereof, and thence south in a straight line to the northern boundary of Davenport Township.

(c)(1) That part of Iowa lying west of the municipal limits of Davenport south of Iowa Highway 22, north of the Mississippi River and east of the present western boundary of the Dewey Portland Cement Co., at Linwood, including points on such boundaries, and (2) that part of Iowa east of

the municipal limits of Bettendorf, south of U.S. Highway 67, west of a private road running between U.S. Highway 67 and Riverside Power Plant of the Iowa-Illinois Gas & Electric Co., and north of the Mississippi River, including points on such boundaries.

(d) The municipalities of Carbon Cliff, Silvis, East Moline, Moline, Rock Island, and Milan, Ill., and that part of Illinois lying south or east of such municipalities, within a line as follows: Beginning at a point where Illinois Highway 84 crosses the southern municipal limits of Carbon Cliff and extending southerly along such highway to its junction with Colona Road, thence westerly along Colona Road to Bowlesburg Road, thence southerly on Bowlesburg Road to the southern boundary of Hampton Township, thence along the southern boundaries of Hampton and South Moline Townships to U.S. Highway 150, thence southerly along U.S. Highway 150 to the southern boundary of the Moline Airport, thence along the southern and western boundaries of the Moline Airport to Illinois Highway 92, and thence along Illinois Highway 92 to the corporate limits of Milan.

(e) All points in Illinois within one-half mile on each side of Rock Island County State Aid Route No. 9 extending southwesterly from the corporate limits of Milan for a distance of 1 mile, including points on such highway.

*Sec. 11 Commercial zones of municipalities in New Jersey within 5 miles of New York, N.Y.*

(a) The application of §372.241 is hereby extended to each municipality in New Jersey, any part of which is within 5 miles of the corporate limits of New York, N.Y.

(b) The exemption provided by section 203(b)(8) of the Interstate Commerce Act, of transportation by motor vehicle, in interstate or foreign commerce, performed wholly within any commercial zone, the limits of which are defined in paragraph (a) of this section, is hereby removed as to all such transportation except (1) transportation which is performed wholly between any two points in New Jersey, or (2) transportation which is performed wholly between points in New Jersey named in §372.201, on the one hand, and, on the other, points in New York named in §372.201.

*Sec. 12 Commercial zones of municipalities in Westchester and Nassau Counties, N.Y.*

(a) The application of §372.241 is hereby extended to each municipality in Westchester or Nassau Counties, N.Y.

(b) The exemption provided by section 203(b)(8) of the Interstate Commerce Act, of transportation by motor vehicle, in interstate or foreign commerce, performed wholly within any commercial zone, the limits of which are defined in paragraph (a) of this section, is hereby removed as to all such transportation except (1) transportation which is performed wholly between points in New York neither of which is New York City, NY, or (2) transportation which is performed wholly between points in Westchester or Nassau County named in §372.201, on the one hand, and, on the other, New York City, N.Y., or points in New Jersey named in §372.201.

*Sec. 13 Tucson, Ariz.*

That zone adjacent to and commercially a part of Tucson, Ariz., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) from regulation, includes, and is comprised of, all points as follows:

(a) The municipality of Tucson, Ariz., itself.

(b) All points within a line drawn 5 miles beyond the corporate limits of Tucson, Ariz.

(c) All points in that area south of the line described in paragraph (b) of this section, bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section, intersects Wilmot Road, thence south along Wilmot Road to junction Nogales Old Vail Connection, thence west along Nogales Old Vail Connection, actual or extended, to the Santa Cruz River, thence north along the east bank of the Santa Cruz River to its joinder with the line described in paragraph (b) of this section.

(d) All of any municipality any part of which is within the limits of the combined areas defined in paragraphs (b) and (c) of this section.

(e) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the city of Tucson or by any municipality included under the terms of paragraph (d) of this section.

*Sec. 14 Albuquerque, N. Mex.*

The zone adjacent to and commercially a part of Albuquerque, N. Mex., within which transportation by motor vehicle, in interstate or foreign



commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), from regulation, includes, and is comprised of, all points as follows:

(a) The municipality of Albuquerque, N. Mex., itself.

(b) All points within a line drawn 5 miles beyond the corporate limits of Albuquerque, N. Mex.

(c) All points in that area north of the line described in paragraph (b) of this section, bounded by a line as follows: Beginning at the intersection of the line described in paragraph (b) of this section and New Mexico Highway 528, extending in a northeasterly direction along New Mexico Highway 528 to its intersection with New Mexico Highway 44, thence easterly along New Mexico Highway 44 to its intersection with New Mexico Highway 422, thence southerly along New Mexico Highway 422 to its intersection with the line described in paragraph (b) of this section.

(d) All of any municipality any part of which is within the limits of the combined areas defined in paragraphs (b) and (c) of this section;

(e) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the city of Albuquerque, N. Mex., or by any municipality included under the terms of paragraph (b) of this section.

*Sec. 18 Ravenswood, W. Va.*

That zone adjacent to and commercially a part of Ravenswood, W. Va., within which transportation by motor vehicle, in interstate or foreign commerce, not under common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), from regulation, includes, and is comprised of, all points as follows:

(a) The municipality of Ravenswood, W. Va., itself.

(b) All points within a line drawn 3 miles beyond the corporate limits of Ravenswood, W. Va., and

(c) All points in West Virginia in that area south and southwest of those described in paragraph (b) of this section, bounded by a line as follows: Beginning at the point where the Ohio River meets the line described in paragraph (b) of this section southwest of Ravenswood, thence southerly along the east bank of the Ohio River to the point where the mouth of the Lick Run River empties into the Ohio River; thence in a northeasterly direction along the northern bank of the Lick Run River to the point where it crosses West Virginia Highway 2 south of Ripley Landing, W. Va.; thence in a northerly direction along West Virginia Highway 2 to its intersection with the line described in paragraph (b) of this section west of Pleasant View, W. Va.

*Sec. 19 Lake Charles, La.*

That zone adjacent to and commercially a part of Lake Charles, La., within which transportation by motor vehicle, in interstate or foreign commerce, not under common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), from regulation, includes, and is comprised of, all points as follows:

(a) The municipality of Lake Charles La., itself;

(b) All points within a line drawn 4 miles beyond the corporate limits of Lake Charles, La.;

(c) All points in that area south and west of the line described in paragraph (b) of this section, bounded by a line, as follows: beginning at the point where the line described in paragraph (b) of this section intersects Louisiana Highway 385; thence south along Louisiana Highway 385 to its intersection with the Calcasieu-Cameron Parish line; thence west along the Calcasieu-Cameron Parish line to its intersection with Louisiana Highway 27; thence northerly along Louisiana Highway 27 to a point thereon 2 miles south of U.S. Highway 90; thence east along a line parallel to U.S. Highway 90 to Louisiana Highway 108; thence north along Louisiana Highway 108 to junction U.S. Highway 90; thence east along U.S. Highway 90 to the intersection thereof with the line described in paragraph (b) of this section;

(d) All of the municipality any part of which is within the limits of the combined areas in paragraphs (b) and (c) of this section; and

(e) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the City of Lake Charles or by any municipality

included under the terms of paragraph (d) of this section.

*Sec. 20 Syracuse, N.Y.*

The zone adjacent to and commercially a part of Syracuse, N.Y., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuing carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points as follows:

(a) The municipality of Syracuse, NY., itself;

(b) All other municipalities and unincorporated areas within 5 miles of the corporate limits of Syracuse, N.Y., and all of any other municipality any part of which lies within 5 miles of such corporate limits;

(c) Those points in the town of Geddes, Onondaga County, N.Y., which are not within 5 miles of the corporate limits of Syracuse, N.Y.;

(d) Those points in the towns of Van Buren and Lysander, Onondaga County, N.Y., not within 5 miles of the corporate limits of Syracuse, N.Y., and within an area bounded by a line beginning at the intersection of Van Buren Road with the line described in (b) above, thence northwesterly along Van Buren Road to its intersection with the cleared right-of-way of Niagara Mohawk Power Company, thence northwesterly and north along said right-of-way to its intersection between Church Road and Emerick Road, with the cleared right-of-way of New York State Power Authority, thence easterly along said cleared right-of-way to its intersection with the Seneca River, thence south along the Seneca River to its intersection, near Gaskin Road, with the cleared right-of-way of Niagara Mohawk Power Company, thence southwesterly along said cleared right-of-way to its intersection with the eastern limits of the Village of Baldwinsville, thence south along such Village limits to their intersection with a line of railroad presently operated by the Erie-Lackawanna Railroad Company, thence southeasterly along said line of railroad to its intersection with the Van-Buren Lysander Town line, thence southeasterly along the Van-Buren Lysander Town line to its intersection with the Van-Buren Geddes Town line, thence southeasterly along the Van-Buren Geddes Town line to the line described in (b) above.

*Sec. 21 Baltimore, Md.*

The zone adjacent to and commercially a part of Baltimore, Md., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and it is comprised of all as follows:

(a) The municipality of Baltimore itself;

(b) All points within a line drawn 5 miles beyond the boundaries of Baltimore;

(c) All points in that area east of the line described in paragraph (b) of this section bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section crosses Dark Head Creek and extending in a southeasterly direction along the center of Dark Head Creek and beyond to a point off Wilson Point, thence in a northeasterly direction to and along the center of Frog Mortar Creek to Stevens Road, thence northerly along Stevens Road to Eastern Avenue, thence easterly along Eastern Avenue to Bengies Road, thence northwesterly along Bengies Road, to the right-of-way of the Penn Central Transportation Co., thence westerly along such right-of-way to the junction thereof with the line described in paragraph (b) of this section;

(d) All points in that area south of the line described in paragraph (b) of this section, bounded on the west by the right-of-way of the line of the Penn Central Transportation Co., extending between Stony Run and Severn, Md., and on the south by that part of Maryland Highway 176, extending easterly from the said railroad to its junction with the line described in paragraph (b) of this section;

(e) All points in that area southwest of the line described in paragraph (b) of this section, bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section crosses the Baltimore-Washington Expressway and extending in a southwesterly direction along the Baltimore-Washington Expressway to its intersection with Maryland Highway 176, thence westerly along Maryland Highway 176 to its intersection with the Howard-Anne Arundel County line, thence southwesterly along said county line to its intersection with Maryland Highway 32, thence northwesterly along Maryland Highway 32 to its intersection with the Little Patuxent River, thence northerly along the Little Patuxent River to the intersection of its north fork and its east fork located approximately 1 mile north of the intersection of Maryland Highway 32 and Berger Road, thence easterly along the east fork of the Little Patuxent River to its intersection with Broken Land Parkway, thence southerly along Broken Land Parkway to its intersection with Snowden River Parkway, thence easterly along Snowden River Parkway, to its intersection with relocated Maryland Highway 175, thence southeasterly along relocated Maryland Highway 175, to its intersection with Lark Brown Road, thence northeasterly along Lark Brown Road to its intersection with Maryland Highway 175, thence southerly along Maryland Highway 175 to its intersection with Interstate Highway 95, thence northeasterly along Interstate Highway 95 to its intersection with the line described in paragraph (b) of this section;

(f) All points in that area north of the line described in paragraph (b) of this section bounded by a line as follows: Beginning at the junction of the line described in paragraph (b) of this section and the Baltimore-Harrisburg Expressway (Interstate Highway 83), thence northerly along Interstate Highway 83 to its junction with Shawan Road, thence easterly along Shawan Road to its junction with York Road (Maryland Highway 45) and continuing to a point 1,500 feet east of Maryland Highway 45, thence southerly along a line 1,500 feet east of the parallel to Maryland Highway 45 to its junction with the line described in paragraph (b) of this section;

(g) All points in that area west of the line described in paragraph (b) of this section bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section intersects U.S. Highway 40 west of Baltimore, Md., and extending in a westerly direction along U.S. Highway 40 to its intersection with St. John's Lane, thence southerly along St. John's Lane to its intersection with Maryland Highway 144, thence easterly along Maryland Highway 144 to its intersection with the line in paragraph (b) of this section;

(h) All of any municipality any part of which is within the limits of the combined areas defined in paragraphs (b), (c), (d), (e), (f), and (g) of this section;

(i) All of any municipality wholly surrounded, or surrounded except for a water boundary, by the city of Baltimore or by any municipality included under the terms of (h) above.

#### *Sec. 22 Cleveland, Ohio*

The zone adjacent to and commercially a part of Cleveland, Ohio, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and it is comprised of all as follows:

(a) All points in Cuyahoga County, Ohio, and

(b) All points in Wickliffe, Willoughby Hills, Waite Hill, Willoughby, Willowick, Eastlake, Lakeline, Timberlake, and Mentor, Lake County, Ohio.

#### *Sec. 23 Detroit, Mich.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Detroit, Mich., in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) from regulation, is hereby determined to include, and to be comprised of, all that area within a line as follows:

Beginning at a point on Lake St. Clair opposite the intersection of Fifteen Mile Road and Michigan Highway 29 and extending south and southwest along the shore of Lake St. Clair, to the Detroit River, thence along such River (east of Belle Isle) and Trenton Channel to a point opposite Sibley Road, thence west to and along Sibley Road to Waltz Road, thence north along Waltz Road to Wick Road, thence west along Wick Road to Cogswell Road, thence north along Cogswell Road to Van Born Road, thence east along Van Born Road to Newburgh Road, thence north along Newburgh Road to its junction with Halsted Road, thence north along Halsted Road to West Maple Road, thence east along West Maple Road to Telegraph Road, thence north along Telegraph Road to Sixteen Mile Road, thence east along Sixteen Mile Road to Utica Road, thence southeasterly along Utica Road to Fifteen Mile Road (also called East Maple Road), thence along Fifteen Mile Road and across Michigan Highway 29 to Lake St. Clair, the point of beginning.

#### *Sec. 24 Seattle, Wash.*

The zone adjacent to and commercially a part of Seattle, Wash., within which transportation by motor vehicle, in interstate or foreign commerce, not under common control, management, or arrangement for continuous carriage or shipments to or from a point beyond such zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

(a) The municipality of Seattle itself.

(b) All points within a line drawn 5 miles beyond the municipal limits of Seattle, except points on Bainbridge Island, Vashon Island, and Blake Island.

(c) All points more than 5 miles beyond the municipal limits of Seattle (1) within a line as follows: Beginning at that point south of Seattle where the eastern shore of Puget Sound intersects the line described in paragraph (b) of this section, thence southerly along the eastern shore of Puget Sound to Southwest 192d Street, thence easterly along Southwest 192d Street to the point where it again intersects the line described in paragraph (b) of this section; and (2) within a line as follows: Beginning at the junction of the southern corporate limits of Kent, Wash., and Washington Highway 181, and extending south along Washington Highway 181 to the northern corporate limits of Auburn, Wash., thence along

the western, southern, and eastern corporate limits of Auburn to the junction of the northern corporate limits of Auburn and Washington Highway 167, thence northerly along Washington Highway 167 to its junction with the southern corporate limits of Kent, Wash., including all points on the highways named.

(d) All points more than 5 miles beyond the municipal limits of Seattle within a line as follows: Beginning at the junction of the northern corporate limits of Lynwood, Wash., and U.S. Highway 99, thence north along U.S. Highway 99 to its junction with Washington Highway 525, thence along Washington Highway 525 to its junction with West Casino Road, thence east along West Casino Road to the western boundary of the Everett facilities of the Boeing Co. at or near 4th Avenue West, thence along the western, northern and eastern boundaries of the facilities of the Boeing Co. to West Casino Road, thence east along West Casino Road to its junction with U.S. Highway 99, thence south along U.S. Highway 99 to 112th Street, thence easterly along 112th Street to its junction with Interstate Highway 5, thence southerly along Interstate Highway 5 to its intersection with the present zone limits, including all points on the named routes.

(e) All of any municipality any part of which is within the limits set forth in (b) above.

(f) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the city of Seattle or by any municipality included under the terms of (b) above.

*Sec. 25 Albany, N.Y.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Albany, N.Y., in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) from regulations, is hereby determined to include, and to be comprised of, the following:

(a) The municipality of Albany itself,

(b) All points within a line drawn 5 miles beyond the municipal limits of Albany,

(c) All points in that area more than 5 miles beyond the municipal limits of Albany bounded by a line as follows: Beginning at that point on Swatling Road (in the Town of Colonie) where it crosses the line described in (b) above and extending northerly along such road to the municipal limits of Cohoes, thence along the western and northern boundary of Cohoes to the Mohawk River, thence along such river to the northern boundary of the Town of Waterford, thence along the northern and eastern boundaries of the Town of Waterford to the northern boundary of the City of Troy (all of which city is included under the next following provision),

(d) All of any municipality any part of which is within the limits of the combined areas defined in (b) and (c) above, and

(e) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the municipality of Albany or by any other municipality included under the terms of (d) above.

*Sec. 26 Minneapolis-St. Paul, Minn.*

The zone adjacent to and commercially a part of Minneapolis-St. Paul, Minn, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and it is comprised of all as follows:

Beginning at the intersection of Minnesota Highway 36 and the Minnesota River and extending along the Minnesota River to the southwest corner of the city of Bloomington, thence north along the western boundaries of the city of Bloomington and the village of Edina to the southern boundary of the city of Hopkins, thence along the southern, western, and northern boundaries of the city of Hopkins to the western boundary of the city of St. Louis Park, thence north along the western boundaries of the city of St. Louis Park and the village of Golden Valley to the southeast corner of the village of Plymouth, thence west along the southern boundary of Plymouth to Interstate Highway 494, thence north along Interstate Highway 494 to Minnesota Highway 55, thence southeast along Minnesota Highway 55 to the western boundary of the village of Golden Valley, thence north along the western boundaries of the villages of Golden Valley and New Hope to the northwestern corner of the village of New Hope, thence east along the northern boundary of the village of New Hope and the city of Crystal to the western boundary of the village of Brooklyn Center, thence north along the western boundary of the village of Brooklyn Center to its northern boundary, thence east along such northern boundary to the Hennepin County-Anoka County line, thence north along such county line to the northwestern corner of the village of Spring Lake Park in Anoka County, thence east along the northern boundary of the village of Spring Lake Park to the northwest corner of Mounds View Township in Ramsey County, thence east and south along the northern and eastern boundaries of Mounds View Township to the northwestern corner of the village of Little Canada, thence east and south along the northern and eastern boundaries of Little Canada to the northwest corner of the village of Maplewood, thence east and south along the northern and eastern boundaries of the village of Maplewood to the northeastern corner of the village of North St. Paul, thence south along the eastern boundary of the village of North St. Paul to the southeast corner of such village, thence south along the eastern boundary of the village of Maplewood to the northeastern corner of the village of Newport, thence south and west along the

eastern and southern boundaries of the village of Newport to U.S. Highway 61, thence southeasterly along U.S. Highway 61, to the eastern boundary of the village of St. Paul Park, thence along the eastern, southern, and western boundaries of the village of St. Paul Park to a point on the Mississippi River opposite the southeast corner of the original village of Inver Grove, thence westerly across the river and along the southern and western boundaries of the original village of Inver Grove to the northwest corner of such village, thence due north to the southern boundary of South St. Paul, thence north and west along the western and southern boundaries of South St. Paul to the southeastern corner of West St. Paul, thence west along the southern boundary of West St. Paul to County Highway 63, thence south along County Highway 63 to its junction with County Highway 63A, thence west along County Highway 63A to its junction with Minnesota Highway 49, thence north along Minnesota Highway 49 to its junction with County Highway 28, thence west along County Highway 28 to its junction with Minnesota Highway 13, thence southwest along Minnesota Highway 13 to its junction with Minnesota Highway 36, thence north and northwest along Minnesota Highway 36 to the Minnesota River, the point of beginning.

*Sec. 27 New Orleans, La.*

The zone adjacent to and commercially a part of New Orleans, La., within which transportation by motor vehicle, in interstate or foreign commerce, not under common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points in the area bounded as follows:

Commencing at a point on the shore of Lake Pontchartrain where it is crossed by the Jefferson Parish-Orleans Parish line; thence easterly along the shore of Lake Pontchartrain to the Rigolets; thence through the Rigolets in an easterly direction to Lake Borgne; thence southwesterly along the shore of Lake Borgne to the Bayou Bienvenue; thence in a general westerly direction along the Bayou Bienvenue (which also constitutes the Orleans Parish-St. Bernard Parish line) to Paris Road; thence in a southerly direction along Paris Road to the Back Protection Levee; thence in a southeasterly direction along the Back Protection Levee (across Lake Borgne Canal) to a point 1 mile north of Louisiana Highway 46; thence in an easterly direction 1 mile north of Louisiana Highway 46 to longitude 89°50' W.; thence south along longitude line 89°50' W. (crossing Louisiana Highway 46 approximately three-eighths of a mile east of Toca) to Forty Arpent Canal; thence westerly, northwesterly, and southerly along Forty Arpent Canal to Scarsdale Canal; thence northwesterly along Scarsdale Canal and beyond it in the same direction to the middle of the Mississippi River; thence southerly along the middle of the Mississippi River to the Augusta Canal; thence in a westerly direction along the Augusta Canal to the Gulf Intracoastal Waterway; thence in a northerly direction along the middle of the Gulf Intracoastal Waterway (Harvey Canal) to the point where Lapalco Boulevard runs perpendicular to the Gulf Intracoastal Waterway (Harvey Canal); thence in a westerly direction along Lapalco Boulevard to its junction with Barataria Boulevard; thence north on Barataria Boulevard to a point approximately 2 miles south of the Mississippi River where a high tension transmission line crosses Barataria Boulevard; thence in a westerly direction following such transmission line to the intersection thereof with U.S. Highway 90; thence westerly along U.S. Highway 90 to the Jefferson Parish-St. Charles Parish line; thence north along such parish line to the middle of the Mississippi River; thence westerly along the middle of the Mississippi River to a point south of Almedia Road; thence north to Almedia Road; thence in a northerly direction along Almedia Road to its junction with Highway 61; thence north to the shore of Lake Pontchartrain; thence along the shore of Lake Pontchartrain in an easterly direction to the Jefferson Parish-Orleans Parish line, the point of beginning.

*Sec. 28 Pittsburgh, Pa.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Pittsburgh, Pa., in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) from regulation, is hereby determined to include, and to be comprised of, the following:

- (a) All points in Allegheny County, Pa., except Forward, Elizabeth, South Versailles, Marshall (including the Borough of Bradford Woods), Pine Richland, West Deer and Fawn Townships and that part of Frazer Township north of a line made by extending easterly in a straight line the southern boundary of West Deer Township.
- (b) Borough of Trafford situated in both Allegheny and Westmoreland Counties;
- (c) Borough of Ambridge and Harmony Township located in Beaver County; and
- (d) The City of New Kensington and Borough of Arnold in Westmoreland County.

*Sec. 29 Portland, Oreg.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Portland, Oreg., in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) from regulation, is hereby determined to include, and to be comprised of, the following:

(a) The municipality itself.

(b) All points in Oregon within a line drawn 5 miles beyond the corporate limits of Portland.

(c) All of any municipality any part of which is within the line described in (b) above.

(d) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the city of Portland or by any municipality included under the terms of (c) above.

*Sec. 30 Vancouver, Wash.*

For the purpose of administration and enforcement of Part II of the Interstate Commerce Act, the zone adjacent to and commercially a part of Vancouver, Wash., in which transportation by motor vehicle in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act (49 U.S.C. 303(b)(8)) from regulation, is hereby determined to include, and to be comprised of, the following:

(a) The municipality itself.

(b) All points in Washington within a line drawn 4 miles beyond the corporate limits of Vancouver.

(c) All of any municipality any part of which is within the line described in (b) above.

(d) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the City of Vancouver or by any municipality included under the terms of (c) above.

*Sec. 31 Charleston, S.C.*

The zone adjacent to and commercially a part of Charleston, S.C., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), from regulation, includes and is comprised of, all points and places as follows:

(a) The municipality of Charleston itself.

(b) All points within a line drawn 4 miles beyond the boundaries of Charleston.

(c) All points in that area north of the line described in paragraph (b) of this section, bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section crosses Cooper River and extending in a northerly direction along the center of Cooper River to Goose Creek; thence north and west along the center of Goose Creek to the dam of the reservoir of the Charleston waterworks; thence northwesterly along the west bank of the Charleston waterworks reservoir for approximately one mile to an unnamed creek; thence westerly along the center of this unnamed creek for approximately one mile to U.S. Highway 52; thence northerly along U.S. Highway 52 to junction South Carolina Highway S-10-75; thence westerly along South Carolina Highway S-10-75 approximately one and one half miles to a point one quarter mile west of the track of the Southern Railway Company; thence southeasterly along a line one quarter of a mile west of, and parallel to, the track of the Southern Railway Company to the junction thereof with the line described in paragraph (b) of this section.

(d) All of any municipality any part of which is within the limits of the combined areas defined in paragraphs (1) and (c) of this section.

(e) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the city of Charleston or by any municipality included under the terms of paragraph (d) of this section.

*Sec. 32 Charleston, W. Va.*

That zone adjacent to and commercially a part of Charleston, W. Va., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), from regulation, includes, and is comprised of, all points and places as follows:

(a) The municipality of Charleston, W. Va., itself.

(b) All points within a line drawn 4 miles beyond the corporate limits of Charleston, W. Va.

(c) All points in that area northwest of those described in (b) above, bounded by a line as follows: Beginning at a point on the line described in (b) above, one-half mile south of U.S. Highway 60 west of Charleston, thence westerly along a line one-half mile south of the junction of U.S. Highway 60 with West Virginia Highway 17 near 2 3/4 Mile Creek, thence westerly along a line one-half mile south of and parallel to West Virginia Highway 17 to the Coal River, thence north along the center of the Coal River to West Virginia Highway 17, thence northerly along West Virginia Highway 17 to Scary Creek, near Scary, W. Va., thence east along Scary Creek to the center of the Kanawha River, thence northerly along the center of the Kanawha River to a point opposite the mouth of Blake Creek (between Nitro and Poca, W. Va.), thence easterly along a straight line drawn through the junction of U.S. Highway 35 and West Virginia Highway 25 to a point one-half mile beyond said junction, thence southerly along a line one-half mile northeast of and parallel to West Virginia Highway 25 to the junction of the line described in (b) above.

(d) All points in that area southeast of those described in (b) above, bounded by a line as follows: Beginning at a point on the line described in (b) above one-half mile south of the Kanawha River, thence easterly along a line one-half mile south of, and parallel to, the Kanawha River to junction with a straight line intersecting the highway bridge at Chelyan, W. Va., thence northerly along said straight line across the Kanawha River to a point one-half mile north of the Kanawha River, thence westerly along a line one-half mile north of and parallel to the Kanawha River to the junction of the line described in (b) above.

(e) All of any municipality any part of which is within the limits of the combined areas defined in (b), (c), and (d) above.

#### *Sec. 33 Memphis, Tenn.*

That zone adjacent to and commercially a part of Memphis, Tenn., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) from regulation, includes, and is comprised of, all points as follows:

(a) The municipality of Memphis, Tenn., itself.

(b) All points within a line drawn 5 miles beyond the corporate limits of Memphis, Tenn.

(c) All points in that part of Shelby County, Tenn., north of the line described in paragraph (b) of this section, bounded by a line as follows: Beginning at the intersection of the line described in paragraph (b) of this section and U.S. Highway 51 north of Memphis, thence northeasterly along U.S. Highway 51 for approximately 3 miles to its intersection with Lucy Road, thence easterly along Lucy Road for approximately 1.4 miles to its intersection with Chase Road, thence northerly along Chase Road for approximately 0.6 mile to its intersection with Lucy Road thence easterly along Lucy Road for approximately 0.8 mile to its intersection with Main Road, thence southeasterly along Main Road approximately 0.3 mile to its intersection with Amherst Road, thence southerly and easterly along Amherst Road for approximately 0.8 mile to its intersection with Raleigh-Millington Road, thence southerly along Raleigh-Millington Road for approximately 2 miles to its intersection with the line described in paragraph (b) of this section north of Memphis;

(d) All of any municipality any part of which is within the limits of the combined areas described in paragraphs (b) and (c) of this section.

#### *Sec. 34 Houston, Tex.*

The zone adjacent to, and commercially a part of Houston, Tex., and contiguous municipalities in which transportation by motor vehicle, in interstate or foreign commerce, not under common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, will be partially exempt under section 203(b)(8) of the act from regulation, is hereby defined to include the area which would result by application of the general formula promulgated in §372.241, and in addition thereto, the municipalities of Baytown, La Porte and Lomax, Tex.

#### *Sec. 35 Pueblo, Colo.*

The zone adjacent to and commercially a part of Pueblo, Colo., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)), includes and is comprised of all points as follows:

(a) the municipality of Pueblo, Colo., itself;

(b) All points within a line drawn 4 miles beyond the corporate limits of Pueblo, Colo.:

(c) All of the area known as the Pueblo Memorial Airport, consisting of about 3,500 acres, not within 4 miles of the corporate limits of Pueblo, Colo., and within an area located on the East of Pueblo, the nearest point being about 3.80 miles from the city limits of Pueblo, and bounded on the south by the tracks of the Santa Fe Railroad and the Missouri Pacific Railroad, and a public highway known as Baxter Road and designated as U.S. Highway 50 Bypass and Colorado Highway 96, with such property extending north, west, and east of the described southern base line.

*Sec. 36 Warren, Ohio.*

The zone adjacent to and commercially a part of Warren, Ohio, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt, under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) from regulation includes, and is comprised of, all points as follows:

(a) The municipality of Warren, Ohio, itself.

(b) All points within a line drawn 4 miles beyond the corporate limits of Warren, Ohio.

(c) All points in that area, south of the line in paragraph (b) of this section, bounded by a line as follows: Beginning at the point where the line described in paragraph (b) of this section intersects Ellsworth-Baily Road, thence south along Ellsworth-Baily Road to the Ohio Turnpike, thence southeast along the Ohio Turnpike to New Hallock-Young Road, thence northeast along New Hallock-Young Road to Hallock-Young Road, thence east along Hallock-Young Road to junction Ohio Highway 45 (Salem-Warren Road), thence north along Ohio Highway 45 (Salem-Warren Road) to its intersection with the line described in paragraph (b) of this section.

*Sec. 37 Louisville, Ky.*

The zone adjacent to and commercially a part of Louisville, Ky., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

(a) The municipality of Louisville, Ky., itself;

(b) All other municipalities and unincorporated areas within 5 miles of the corporate limits of Louisville, Ky., and all of any municipality any part of which lies within 5 miles of such corporate limits; and

(c) Those points not within 5 miles of the corporate limits of Louisville, Ky., and within an area bounded by a line beginning at the junction of Kentucky Highway 146 (LaGrange Road) and Kentucky Highway 1447 (Westport Road), thence over Kentucky Highway 146 to the junction of Kentucky Highway 146 and Kentucky Highway 841 (Jefferson Freeway), thence over Kentucky Highway 841 to the junction of Kentucky Highway 841 and Kentucky Highway 1447, thence over Kentucky Highway 1447 to junction Kentucky Highway 1447 and Kentucky Highway 146, the point of beginning, all within Jefferson County, Ky.

*Sec. 38 Sioux City, Iowa.*

The zone adjacent to and commercially a part of Sioux City, Iowa, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

(a) The area which would result by application of the general formula promulgated in §372.241; and, in addition thereto,

(b) That area bounded by a line beginning at the intersection of Interstate Highway 29 and the line described in paragraph (a) of this section, and extending southeasterly along Interstate Highway 29 to its intersection with the Liberty-Lakeport Township, Iowa, line, thence westerly along the Liberty-Lakeport Township, Iowa, line to the Missouri River, thence northerly along the east bank of the Missouri River to its intersection with the line described in paragraph (a) of this section, thence along the line described in paragraph (a) of this section, to the point of beginning.



*Sec. 39 Beaumont, Tex.*

The zone adjacent to and commercially a part of Beaumont, Tex., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

- (a) The areas which would result by application of the general formula promulgated in §372.241 for Beaumont, Tex.; and in addition thereto,
- (b) That area bounded by a line beginning at that point where the west bank of Hillebrandt Bayou intersects the line described in paragraph (a) of this section; thence along the west bank of Hillebrandt Bayou to its confluence with Taylors Bayou; thence in a southeasterly direction along the west and south banks of Taylors Bayou to its confluence with the Intracoastal Waterway; thence along the west and north banks of the Intra-coastal Waterway to its confluence with Sabine River and Sabine Lake at a point immediately east of Groves; thence in a northeasterly direction along the north and west banks of Sabine Lake and Sabine River to the Orange-Newton County line; thence westerly along said county line to the west right-of-way line of State Highway 87; thence southerly along the west right-of-way line of State Highway 87 to the north right-of-way line of Interstate Highway 10; thence westerly along the north right-of-way line of Interstate Highway 10 to intersection with the line described in paragraph (a) of this section; thence along the line described in paragraph (a) of this section, to the point of beginning.

*Sec. 40 Metropolitan Government of Nashville and Davidson County, Tenn.*

The zone adjacent to and commercially a part of the Metropolitan Government of Nashville and Davidson County, Tenn, within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

- (a) The Metropolitan Government of Nashville and Davidson County itself.
- (b) All of any municipality wholly surrounded, or so surrounded except for a water boundary, by the Metropolitan Government of Nashville and Davidson County.

*Sec. 41 Consolidated City of Indianapolis, Ind.*

The zone adjacent to and commercially a part of the Consolidated City of Indianapolis, Ind., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

- (a) The Consolidated City of Indianapolis, Ind., itself.
- (b) All of any municipality wholly surrounded or so surrounded except for a water boundary, by the Consolidated City of Indianapolis.

*Sec. 42 Lexington-Fayette Urban County, Ky.*

The zone adjacent to and commercially a part of Lexington-Fayette Urban County, Ky., within which transportation by motor vehicle, in interstate or foreign commerce, not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond the zone, is partially exempt from regulation under section 203(b)(8) of the Interstate Commerce Act (49 U.S.C. 303(b)(8)) includes and is comprised of all points as follows:

- (a) Lexington-Fayette Urban County, Ky., itself.
- (b) All other municipalities and unincorporated areas within 5 miles of the intersection of U.S. Highway 27 (Nicholasville Road) with the corporate boundary line between Jessamine County, Ky., and Lexington-Fayette Urban County, Ky.

*Sec. 43 Definitions.*

For the purposes of this part, the following terms are defined:

- (a) "Municipality" means any city, town, village, or borough which has been created by special legislative act or which has been, otherwise,

individually incorporated or chartered pursuant to general State laws, or which is recognized as such, under the Constitution or by the laws of the State in which located, and which has a local government. It does not include a town of the township or New England type.

(b) "Contiguous municipalities" means municipalities, as defined in paragraph (a) of this section, which have at some point a common municipal or corporate boundary.

(c) "Unincorporated area" means any area not within the corporate or municipal boundaries of any municipality as defined in paragraph (a) of this section.

*Sec. 44 Commercial zones determined generally, with exceptions.*

The commercial zone of each municipality in the United States, with the exceptions indicated in the note at the end of this section, within which the transportation of passengers or property, in interstate or foreign commerce, when not under a common control, management, or arrangement for a continuous carriage or shipment to or from a point without such zone, is exempt from all provisions of Part II, Interstate Commerce Act, except the provisions of section 204 relative to the qualifications and maximum hours of service of employees and safety of operation or standards of equipment shall be deemed to consist of:

(a) The municipality itself, hereinafter called the base municipality;

(b) All municipalities which are contiguous to the base municipality;

(c) All other municipalities and all unincorporated area within the United States which are adjacent to the base municipality as follows:

(1) When the base municipality has a population less than 2,500 all unincorporated areas within two miles of its corporate limits and all of any other municipality any part of which is within two miles of the corporate limits of the base municipality,

(2) When the base municipality has a population of 2,500 but less than 25,000, all unincorporated areas within 3 miles of its corporate limits and all of any other municipality any part of which is within 3 miles of the corporate limits of the base municipality,

(3) When the base municipality has a population of 25,000 but less than 100,000, all unincorporated areas within 4 miles of its corporate limits and all of any other municipality any part of which is within 4 miles of the corporate limits of the base municipality, and

(4) When the base municipality has a population of 100,000 or more, all unincorporated areas within 5 miles of its corporate limits and all of any other municipality any part of which is within 5 miles of the corporate limits of the base municipality, and

(d) All municipalities wholly surrounded, or so surrounded except for a water boundary, by the base municipality, by any municipality contiguous thereto, or by any municipality adjacent thereto which is included in the commercial zone of such base municipality under the provisions of paragraph (c) of this section.

**Note:** Except: Municipalities the commercial zones of which have been or are hereafter individually or specially determined.

*Sec. 45 Controlling distances and population data.*

In the application of §372.241:

(a) Air-line distances or mileages about corporate limits of municipalities shall be used.

(b) The population of any municipality shall be deemed to be the highest figure shown for that municipality in any decennial census since (and including) the 1940 decennial census.

[53 FR 18058, May 19, 1988, as amended at 62 FR 49942, Sept. 24, 1997]

## **Appendix G to Subchapter B of Chapter III—Minimum Periodic Inspection Standards**

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A vehicle does not pass an inspection if it has one of the following defects or deficiencies:

1. *Brake System.*

- a. *Service brakes.*—(1) Absence of braking action on any axle required to have brakes upon application of the service brakes (such as missing brakes or brake shoe(s) failing to move upon application of a wedge, S-cam, cam, or disc brake).
- (2) Missing or broken mechanical components including: shoes, lining, pads, springs, anchor pins, spiders, cam rollers, push-rods, and air chamber mounting bolts.
- (3) Loose brake components including air chambers, spiders, and cam shaft support brackets.
- (4) Audible air leak at brake chamber (Example-ruptured diaphragm, loose chamber clamp, etc.).
- (5) Readjustment limits. The maximum stroke at which brakes should be readjusted is given below. Any brake 1/4 inch; or more past the readjustment limit or any two brakes less than 1/4 inch; beyond the readjustment limit shall be cause for rejection. Stroke shall be measured with engine off and reservoir pressure of 80 to 90 psi with brakes fully applied.

Bolt Type Brake Chamber Data

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
A.....	12	6 15/16	1 3/8
B.....	24	9 3/16	1 3/4
C.....	16	8 1/16	1 3/4
D.....	6	5 1/4	1 1/4
E.....	9	6 3/16	1 3/8
F.....	36	11	2 1/4
G.....	30	9 7/8	2

Rotochamber Data

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
9.....	9	4 9/32	1 1/2
12.....	12	4 13/16	1 1/2
16.....	16	5 13/32	2
20.....	20	5 15/16	2
24.....	24	6 13/32	2
30.....	30	7 1/16	2 1/4
36.....	36	7 5/8	2 3/4
50.....	50	8 7/8	3

Clamp Type Brake Chamber Data

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
6.....	6	4 1/2"	1 1/4"
9.....	9	5 1/4"	1 3/8"
12.....	12	5 11/16"	1 3/8"
16.....	16	6 3/8"	1 3/4"
20.....	20	6 25/32"	1 3/4"
24.....	24	7 7/32"	1 3/4"
30.....	30	8 3/32"	2
36.....	36	9	2 1/4"

1" (2 inch) for long stroke design).

*Wedge Brake Data*—Movement of the scribe mark on the lining shall not exceed 1/16 inch.

(6) Brake linings or pads.

(a) Lining or pad is not firmly attached to the shoe;

(b) Saturated with oil, grease, or brake fluid; or

(c) Non-steering axles: Lining with a thickness less than 1/4 inch at the shoe center for air drum brakes, 1/16 inch or less at the shoe center for hydraulic and electric drum brakes, and less than 1/8 inch for air disc brakes.

(d) Steering axles: Lining with a thickness less than 1/4 inch at the shoe center for drum brakes, less than 1/8 inch for air disc brakes and 1/16 inch or less for hydraulic disc and electric brakes.

(7) Missing brake on any axle required to have brakes.

(8) Mismatch across any power unit steering axle of:

(a) Air chamber sizes.

(b) Slack adjuster length.

b. *Parking Brake System.* No brakes on the vehicle or combination are applied upon actuation of the parking brake control, including driveline hand controlled parking brakes.

c. *Brake Drums or Rotors.*

- (1) With any external crack or cracks that open upon brake application (do not confuse short hairline heat check cracks with flexural cracks).
- (2) Any portion of the drum or rotor missing or in danger of falling away.

d. *Brake Hose.*

- (1) Hose with any damage extending through the outer reinforcement ply. (Rubber impregnated fabric cover is not a reinforcement ply). (Thermoplastic nylon may have braid reinforcement or color difference between cover and inner tube. Exposure of second color is cause for rejection).
- (2) Bulge or swelling when air pressure is applied.
- (3) Any audible leaks.
- (4) Two hoses improperly joined (such as a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube).
- (5) Air hose cracked, broken or crimped.

e. *Brake Tubing.*

- (1) Any audible leak.
- (2) Tubing cracked, damaged by heat, broken or crimped.

f. *Low Pressure Warning Device* missing, inoperative, or does not operate at 55 psi and below, or 1/2 the governor cut-out pressure, whichever is less.

g. *Tractor Protection Valve.* Inoperable or missing tractor protection valve(s) on power unit.

h. *Air Compressor.*

- (1) Compressor drive belts in condition of impending or probable failure.
- (2) Loose compressor mounting bolts.
- (3) Cracked, broken or loose pulley.
- (4) Cracked or broken mounting brackets, braces or adapters.

i. *Electric Brakes.*

- (1) Absence of braking action on any wheel required to have brakes.
- (2) Missing or inoperable breakaway braking device.

j. *Hydraulic Brakes. (Including Power Assist Over Hydraulic and Engine Drive Hydraulic Booster).*

- (1) Master cylinder less than 1/4 full.
- (2) No pedal reserve with engine running except by pumping pedal.
- (3) Power assist unit fails to operate.
- (4) Seeping or swelling brake hose(s) under application of pressure.
- (5) Missing or inoperative check valve.
- (6) Has any visually observed leaking hydraulic fluid in the brake system.
- (7) Has hydraulic hose(s) abraded (chafed) through outer cover-to-fabric layer.
- (8) Fluid lines or connections leaking, restricted, crimped, cracked or broken.
- (9) Brake failure or low fluid warning light on and/or inoperative.

k. *Vacuum Systems.* Any vacuum system which:

- (1) Has insufficient vacuum reserve to permit one full brake application after engine is shut off.
- (2) Has vacuum hose(s) or line(s) restricted, abraded (chafed) through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.
- (3) Lacks an operative low-vacuum warning device as required.

2. *Coupling devices.*

a. *Fifth Wheels.*

- (1) Mounting to frame.
  - (a) Any fasteners missing or ineffective.

- (b) Any movement between mounting components.
- (c) Any mounting angle iron cracked or broken.
- (2) Mounting plates and pivot brackets.
  - (a) Any fasteners missing or ineffective.
  - (b) Any welds or parent metal cracked.
  - (c) More than 3/8 inch horizontal movement between pivot bracket pin and bracket.
  - (d) Pivot bracket pin missing or not secured.
- (3) Sliders.
  - (a) Any latching fasteners missing or ineffective.
  - (b) Any fore or aft stop missing or not securely attached.
  - (c) Movement more than 3/8 inch between slider bracket and slider base.
  - (d) Any slider component cracked in parent metal or weld.
- (4) Lower coupler.
  - (a) Horizontal movement between the upper and lower fifth wheel halves exceeds 1/2 inch.
  - (b) Operating handle not in closed or locked position.
  - (c) Kingpin not properly engaged.
  - (d) Separation between upper and lower coupler allowing light to show through from side to side.
  - (e) Cracks in the fifth wheel plate.

*Exceptions:* Cracks in fifth wheel approach ramps and casting shrinkage cracks in the ribs of the body of a cast fifth wheel.

- (f) Locking mechanism parts missing, broken, or deformed to the extent the kingpin is not securely held.

b. *Pintle Hooks.*

(1) Mounting to frame.

(a) Any missing or ineffective fasteners (a fastener is not considered missing if there is an empty hole in the device but no corresponding hole in the frame or vice versa).

(b) Mounting surface cracks extending from point of attachment (e.g., cracks in the frame at mounting bolt holes).

(c) Loose mounting.

(d) Frame cross member providing pintle hook attachment cracked.

(2) Integrity.

(a) Cracks anywhere in pintle hook assembly.

(b) Any welded repairs to the pintle hook.

(c) Any part of the horn section reduced by more than 20%.

(d) Latch insecure.

c. *Drawbar/Towbar Eye.*

(1) Mounting.

(a) Any cracks in attachment welds.

(b) Any missing or ineffective fasteners.

(2) Integrity.

(a) Any cracks.

(b) Any part of the eye reduced by more than 20%.

d. *Drawbar/Towbar Tongue.*

(1) Slider (power or manual).

(a) Ineffective latching mechanism

(b) Missing or ineffective stop.



(c) Movement of more than 1/4 inch between slider and housing.

(d) Any leaking, air or hydraulic cylinders, hoses, or chambers (other than slight oil weeping normal with hydraulic seals).

(2) Integrity.

(a) Any cracks.

(b) Movement of 1/4 inch between subframe and drawbar at point of attachment.

e. *Safety Devices.*

(1) Safety devices missing.

(2) Unattached or incapable of secure attachment.

(3) Chains and hooks.

(a) Worn to the extent of a measurable reduction in link cross section.

(b) Improper repairs including welding, wire, small bolts, rope and tape.

(4) Cable.

(a) Kinked or broken cable strands.

(b) Improper clamps or clamping.

f. *Saddle-Mounts.*

(1) Method of attachment.

(a) Any missing or ineffective fasteners.

(b) Loose mountings.

(c) Any cracks or breaks in a stress or load bearing member.

(d) Horizontal movement between upper and lower saddle-mount halves exceeds 1/4 inch.

3. *Exhaust System.*

a. Any exhaust system determined to be leaking at a point forward of or directly below the

driver/sleeper compartment.

b. A bus exhaust system leaking or discharging to the atmosphere:

(1) Gasoline powered—excess of 6 inches forward of the rearmost part of the bus.

(2) Other than gasoline powered—in excess of 15 inches forward of the rearmost part of the bus.

(3) Other than gasoline powered—forward of a door or window designed to be opened. (exception: Emergency exits).

c. No part of the exhaust system of any motor vehicle shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

#### 4. *Fuel System.*

a. A fuel system with a visible leak at any point.

b. A fuel tank filler cap missing.

c. A fuel tank not securely attached to the motor vehicle by reason of loose, broken or missing mounting bolts or brackets (some fuel tanks use springs or rubber bushings to permit movement).

5. *Lighting Devices.* All lighting devices and reflectors required by Section 393 shall be operable.

#### 6. *Safe Loading.*

a. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway.

b. Protection Against Shifting Cargo—Any vehicle without a front-end structure or equivalent device as required.

#### 7. *Steering Mechanism.*

a. *Steering Wheel Free Play (on vehicles equipped with power steering the engine must be running).*

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Steering wheel diameter	Manual steering system	Power steering system
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16[inch].....	2[inch]	4\1/2[inch]
18[inch].....	2\1/4[inch]	4\3/4[inch]
20[inch].....	4\1/2[inch]	4\1[inch]
22[inch].....	2\1/2[inch]	5\1/4[inch]
	2\3/4[inch]	5\3/4[inch]
	4\1[inch]	4\1[inch]

b. *Steering Column.*

- (1) Any absence or looseness of U-bolt(s) or positioning part(s).
- (2) Worn, faulty or obviously repair welded universal joint(s).
- (3) Steering wheel not properly secured.

c. *Front Axle Beam and All Steering Components Other Than Steering Column.*

- (1) Any crack(s).
- (2) Any obvious welded repair(s).

d. *Steering Gear Box.*

- (1) Any mounting bolt(s) loose or missing.
- (2) Any crack(s) in gear box or mounting brackets.

e. *Pitman Arm.* Any looseness of the pitman arm on the steering gear output shaft.

f. *Power Steering.* Auxiliary power assist cylinder loose.

g. *Ball and Socket Joints.*

- (1) Any movement under steering load of a stud nut.
- (2) Any motion, other than rotational, between any linkage member and its attachment point of more than 1/4 inch.

h. *Tie Rods and Drag Links.*

- (1) Loose clamp(s) or clamp bolt(s) on tie rods or drag links.
- (2) Any looseness in any threaded joint.

i. *Nuts.* Nut(s) loose or missing on tie rods, pitman arm, drag link, steering arm or tie rod arm.

j. *Steering System.* Any modification or other condition that interferes with free movement of any steering component.

#### 8. *Suspension.*

a. Any U-bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position. (After a turn, lateral axle displacement is normal with some suspensions. Forward or rearward operation in a straight line will cause the axle to return to alignment).

#### b. *Spring Assembly.*

(1) Any leaves in a leaf spring assembly broken or missing.

(2) Any broken main leaf in a leaf spring assembly. (Includes assembly with more than one main spring).

(3) Coil spring broken.

(4) Rubber spring missing.

(5) One or more leaves displaced in a manner that could result in contact with a tire, rim, brake drum or frame.

(6) Broken torsion bar spring in a torsion bar suspension.

(7) Deflated air suspension, i.e., system failure, leak, etc.

c. *Torque, Radius or Tracking Components.* Any part of a torque, radius or tracking component assembly or any part used for attaching the same to the vehicle frame or axle that is cracked, loose, broken or missing. (Does not apply to loose bushings in torque or track rods.)

#### 9. *Frame.*

#### a. *Frame Members.*

(1) Any cracked, broken, loose, or sagging frame member.

(2) Any loose or missing fasteners including fasteners attaching functional component such as engine, transmission, steering gear, suspension, body parts, and fifth wheel.

b. *Tire and Wheel Clearance*. Any condition, including loading, that causes the body or frame to be in contact with a tire or any part of the wheel assemblies.

c. (1) *Adjustable Axle Assemblies (Sliding Subframes)*. Adjustable axle assembly with locking pins missing or not engaged.

10. *Tires*.

a. Any tire on any steering axle of a power unit.

(1) With less than 4/32 inch tread when measured at any point on a major tread groove.

(2) Has body ply or belt material exposed through the tread or sidewall.

(3) Has any tread or sidewall separation.

(4) Has a cut where the ply or belt material is exposed.

(5) Labeled “Not for Highway Use” or displaying other marking which would exclude use on steering axle.

(6) A tube-type radial tire without radial tube stem markings. These markings include a red band around the tube stem, the word “radial” embossed in metal stems, or the word “radial” molded in rubber stems.

(7) Mixing bias and radial tires on the same axle.

(8) Tire flap protrudes through valve slot in rim and touches stem.

(9) Regrooved tire except motor vehicles used solely in urban or suburban service (see exception in 393.75(e)).

(10) Boot, blowout patch or other ply repair.

(11) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.

(12) Tire is flat or has noticeable (e.g., can be heard or felt) leak.

(13) Any bus equipped with recapped or retreaded tire(s).

(14) So mounted or inflated that it comes in contact with any part of the vehicle.

b. All tires other than those found on the steering axle of a power unit:

- (1) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
- (2) Tire is flat or has noticeable (e.g., can be heard or felt) leak.
- (3) Has body ply or belt material exposed through the tread or sidewall.
- (4) Has any tread or sidewall separation.
- (5) Has a cut where ply or belt material is exposed.
- (6) So mounted or inflated that it comes in contact with any part of the vehicle. (This includes a tire that contacts its mate.)
- (7) Is marked "Not for highway use" or otherwise marked and having like meaning.
- (8) With less than 2/32 inch tread when measured at any point on a major tread groove.

#### 11. *Wheels and Rims.*

- a. *Lock or Side Ring.* Bent, broken, cracked, improperly seated, sprung or mismatched ring(s).
- b. *Wheels and rims.* Cracked or broken or has elongated bolt holes.
- c. *Fasteners (both spoke and disc wheels).* Any loose, missing, broken, cracked, stripped or otherwise ineffective fasteners.
- d. *Welds.*

- (1) Any cracks in welds attaching disc wheel disc to rim.
- (2) Any crack in welds attaching tubeless demountable rim to adapter.
- (3) Any welded repair on aluminum wheel(s) on a steering axle.
- (4) Any welded repair other than disc to rim attachment on steel disc wheel(s) mounted on the steering axle.

12. *Windshield Glazing.* (Not including a 2 inch border at the top, a 1 inch border at each side and the area below the topmost portion of the steering wheel.) Any crack, discoloration or vision reducing matter except: (1) coloring or tinting applied at time of manufacture; (2) any crack not over 1/4 inch wide, if not intersected by any other crack; (3) any damaged area not more than 3/4 inch in diameter, if not closer than 3 inches to any other such

damaged area; (4) labels, stickers, decalcomania, etc. (see 393.60 for exceptions).

13. *Windshield Wipers.* Any power unit that has an inoperative wiper, or missing or damaged parts that render it ineffective.

Comparison of Appendix G, and the new North American Uniform Driver-Vehicle Inspection Procedure (North American Commercial Vehicle Critical Safety Inspection Items and Out-Of-Service Criteria)

The vehicle portion of the FMCSA's North American Uniform Driver-Vehicle Inspection Procedure (NAUD-VIP) requirements, CVSA's North American Commercial Vehicle Critical Safety Inspection Items and Out-Of-Service Criteria and Appendix G of subchapter B are similar documents and follow the same inspection procedures. The same items are required to be inspected by each document. FMCSA's and CVSA's out-of-service criteria are intended to be used in random roadside inspections to identify critical vehicle inspection items and provide criteria for placing a vehicle(s) out-of-service. A vehicle(s) is placed out-of-service only when by reason of its mechanical condition or loading it is determined to be so imminently hazardous as to likely cause an accident or breakdown, or when such condition(s) would likely contribute to loss of control of the vehicle(s) by the driver. A certain amount of flexibility is given to the inspecting official whether to place the vehicle out-of-service at the inspection site or if it would be less hazardous to allow the vehicle to proceed to a repair facility for repair. The distance to the repair facility must not exceed 25 miles. The roadside type of inspection, however, does not necessarily mean that a vehicle has to be defect-free in order to continue in service.

In contrast, the Appendix G inspection procedure requires that all items required to be inspected are in proper adjustment, are not defective and function properly prior to the vehicle being placed in service.

Differences Between the Out-of-Service Criteria & FMCSA's Annual Inspection

#### 1. *Brake System.*

The Appendix G criteria rejects vehicles with any defective brakes, any air leaks, etc. The out-of-service criteria allows 20% defective brakes on non-steering axles and a certain latitude on air leaks before placing a vehicle out-of-service.

#### 2. *Coupling Devices.*

Appendix G rejects vehicles with any fifth wheel mounting fastener missing or ineffective. The out-of-service criteria allows up to 20% missing or ineffective fasteners on frame mountings and pivot bracket mountings and 25% on slider latching fasteners. The out-of-service criteria also allows some latitude on cracked welds.

### 3. *Exhaust System.*

Appendix G follows Section 393.83 verbatim. The CVSA out-of-service criteria allows vehicles to exhaust forward of the dimensions given in Section 393.83 as long as the exhaust does not leak or exhaust under the chassis.

### 4. *Fuel System.*

Same for Appendix G and the out-of-service criteria.

### 5. *Lighting Devices.*

Appendix G requires all lighting devices required by Section 393 to be operative at all times. The out-of-service criteria only requires one stop light and functioning turn signals on the rear most vehicle of a combination vehicle to be operative at all times. In addition one operative head lamp and tail lamp are required during the hours of darkness.

### 6. *Safe Loading.*

Same for both Appendix G and the out-of-service criteria.

### 7. *Steering Mechanism*

Steering lash requirements of Appendix G follows the new requirements of §393.209.

### 8. *Suspension*

Appendix G follows the new requirements of §393.207 which does not allow any broken leaves in a leaf spring assembly. The out-of-service criteria allows up to 25% broken or missing leaves before being placed out-of-service.

### 9. *Frame*

The out-of-service criteria allows a certain latitude in frame cracks before placing a vehicle out-of-service. Appendix G follows the new requirements of 393.201 which does not allow any frame cracks.

### 10. *Tires*

Appendix G follows the requirements of 393.75 which requires a tire tread depth of 4/32 inch on power unit steering axles and 2/32 inch on all other axles. The out-of-service criteria only requires 2/32 inch tire tread depth on power unit steering axles and 1/32 inch on all other axles.



## 11. *Wheel and Rims*

The out-of-service criteria allows a certain amount latitude for wheel and rim cracks and missing or defective fasteners. Appendix G meets the requirements of the new 393.205 which does not allow defective wheels and rims non-effective nuts and bolts.

## 12. *Windshield Glazing*

The out-of-service criteria places in a restricted service condition any vehicle that has a crack or discoloration in the windshield area lying within the sweep of the wiper on the drivers side and does not address the remaining area of the windshield. Appendix G addresses requirements for the whole windshield as specified in 393.60.

## 13. *Windshield Wipers*

Appendix G requires windshield wipers to be operative at all times. The out-of-service criteria only requires that the windshield wiper on the driver's side to be inspected during inclement weather.

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