



2015 U.S. AND CANADA

Guide to Commercial Vehicle Covering and Cargo Control Laws



INDUSTRIAL FABRICS ASSOCIATION INTERNATIONAL

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Guide to Commercial Vehicle Covering and Cargo Control Laws

US and Canada Covering Laws
Cargo Securement Rules

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Tarp Association – Mission Statement

To identify, promote and enhance the common interests of Tarp Association members.

Tarp Association – Who we are

The IFAI Tarp Association represents manufacturers of truck tarps and covers, agricultural tarps and covers, daily waste tarps, field covers and gym floor tarps. The Division monitors state and federal covering laws and creates new business opportunities by promoting the use of tarps at trade shows throughout the year.

IFAI Expo

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- Numerous experiences showcasing the breadth and innovation of the industry

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**COMMERCIAL VEHICLE COVERING LAWS
UNITED STATES AND CANADA - 2015**

This directory lists the applicable laws of all states and provinces that require the covering of dump trucks and motor vehicles with a tarpaulin or laws to restrict the spillage of loads on highways. This directory covers information obtained through research conducted in the winter of 2015 by the Tarp Association of the Industrial Fabrics Association International (IFAI).

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ALABAMA
Applicable Sections(s) 32-5-76 & 13A-7-29

32-5-76. Spilling Loads or Litter; Penalty

- (a) Whoever willfully and knowingly operates, owns, or causes to be operated on any public highway, road, street, or public right-of-way a motor vehicle so loaded with gravel, rock, slag, bricks, in such manner or in such condition that the contents of the vehicle spill out and cause it to be deposited upon the highway, road, street, or public right-of-way is guilty of a Class C misdemeanor and upon conviction shall be fined not more than \$500.00, pursuant to Section 13A-7-29, the criminal littering statute.
- (b) No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.
- (c) Whoever willfully and knowingly operates, owns, or causes to be operated on a public highway, road, street, or public right-of-way, a motor vehicle in such manner or in such condition that litter is caused or allowed to be deposited upon the highway, road, or street or public right-of-way, is guilty of a Class C misdemeanor and upon conviction shall be fined not more than \$500.00, pursuant to Section 13A-7-29, the criminal littering statute. Any agricultural product in its natural state that is unintentionally deposited upon a highway, road, street, or public right-of-way does not constitute litter for purposes of this section or Section 13A-7-29.

(Acts 1927, No. 347, p. 348; Code 1940, T. 36, §39; Acts 1949, No. 517, p. 754, §9; Acts 1971, No. 1419, p. 2423; Acts 1989, No. 89-661, p. 1314, §1; Act 2001-469, p. 623, §1.)

13A-7-29. Criminal littering.

- (a) A person commits the crime of criminal littering if he or she engages in any of the following acts:
 - (1) Knowingly deposits in any manner litter on any public or private property or in any public or private waters, having no permission to do so. For purposes of this subdivision, items found in an accumulation of garbage, trash, or other discarded material including, but not limited to, bank statements, utility bills, bank card bills, and other financial documents, clearly bearing the name of a person shall constitute a rebuttable presumption that the person whose name appears thereon knowingly deposited the litter. Advertising, marketing, and campaign materials and literature shall not be sufficient to constitute a rebuttable presumption of criminal littering under this subsection.
 - (2) Negligently deposits in any manner glass or other dangerously pointed or edged objects on or adjacent to water to which the public has lawful access for bathing, swimming, or fishing, or on or upon a public highway, or within the right-of-way thereof.

(3) Discharges sewage, oil products, or litter from a watercraft vessel of more than 25 feet in length into a river, inland lake, or stream within the state or within three miles of the shoreline of the state.

(4) a. Drops or permits to be dropped or thrown upon any highway any destructive or injurious material and does not immediately remove the same or cause it to be removed; or

b. Removes a wrecked or damaged vehicle from a highway and does not remove glass or other injurious substance dropped upon the highway from such vehicle.

(b) "Litter" means rubbish, refuse, waste material, garbage, dead animals or fowl, offal, paper, glass, cans, bottles, trash, scrap metal, debris, or any foreign substance of whatever kind and description, and whether or not it is of value. Any agricultural product in its natural state that is unintentionally deposited on a public highway, road, street, or public right-of-way shall not be deemed litter for purposes of this section or Section 32-5-76. Any other law or ordinance to the contrary notwithstanding, the unintentional depositing of an agricultural product in its natural state on a public highway, road, street, or right-of-way shall not constitute unlawful littering or any similarly prohibited activity.

(c) It is no defense under subsections (a)(3) and (a)(4) that the actor did not intend, or was unaware of, the act charged.

(d) Criminal littering is a Class C misdemeanor. The minimum fine for the first conviction shall be two hundred fifty dollars (\$250), and the fine for the second and any subsequent conviction shall be five hundred dollars (\$500) for each conviction.

(e) The fine from such conviction shall be awarded and distributed by the court to the municipal, and/or county, and/or State General Fund, following a determination by the court of whose law enforcement agencies or departments have been a participant in the arrest resulting in the fine. Such award and distribution shall be made on the basis of the percentage as determined by the court, which the respective agency or department contributed to the police work resulting in the arrest, and shall be spent by the governing body on law enforcement purposes only.

(f) No action for criminal littering based on evidence that creates a rebuttable presumption under subsection (a)(1) shall be brought against a person by or on behalf of a county or municipal governing body unless he or she has been given written notice by a designee of the governing body that items found in an accumulation of garbage, trash, or other discarded materials contain his or her name, and that, under subsection (a)(1), there is a rebuttable presumption that he or she knowingly deposited the litter. The notice shall advise the person that criminal littering is a Class C misdemeanor, and shall provide that, unless the person can present satisfactory information or evidence to rebut the presumption to the designee of the governing body within 15 days from the date of the notice, an action for criminal littering may be filed against him or her in the appropriate court. If the person responds to the notice and presents information or evidence to the designee of the governing body, the designee shall review the information or evidence presented and make a determination as to whether or not an action should be brought against the person for criminal littering. The designee shall provide written notice to the person of its determination, and if the intent is to proceed with an action for criminal littering, the notice shall be sent before any action is filed.

(Acts 1977, No. 607, p. 812, §2725; Acts 1990, No. 90-585, p. 1020; Acts 1997, No. 97-712, p. 1475, §1; Act 98-494, p. 954, §1; Act 2001-469, p. 623, §1.)

Source: alisondb.legislature.state.al.us/acas/ACASLoginFire.asp
Date Accessed: Feb. 2015

ALASKA
Applicable Section(s) 28.35.251

28.35.251. Contained or Confined Loads

(a) A person may not drive a motor vehicle loaded with sand, gravel, rock, or similar materials on a highway unless

(1) The load is contained or confined to prevent the load from dropping, shifting, leaking, or escaping, except that sand or other substances may be dropped, sprinkled, or sprayed for the purpose of cleaning or maintaining the highway or providing traction; and

(2) The load is subjected to treatment by methods, approved by the commissioner by regulation, designed to settle the load or remove loose material before the vehicle is driven on the highway.

(b) If a cover is used to contain or confine a load being driven on a highway, the cover shall be securely fastened to prevent the cover from becoming loose or detached, or from being a hazard to other users of the highway.

ARIZONA
Applicable Section(s) 28-1098

28-1098. Vehicle loads; restrictions; civil penalties

(a) A person shall not drive or move a vehicle on a highway unless the vehicle is constructed or loaded in a manner to prevent any of its load from dropping, sifting, leaking or otherwise escaping from the vehicle, except that either:

(1) Sand may be dropped for the purpose of securing traction.

(2) Water or another substance may be sprinkled on a roadway in cleaning or maintaining the roadway.

(b) A person shall not operate a vehicle on a highway with a load unless the load and any covering on the load are securely fastened in a manner to prevent the covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

(c) If a person is found in violation of this section and the violation:

(1) Does not cause any damage or injury and is the person's:

(a) First violation in a sixty month period, the person is subject to a civil penalty of up to two hundred fifty dollars.

(b) Second or subsequent violation in a sixty month period, the person is subject to a civil penalty of up to three hundred fifty dollars.

(2) Results in an accident causing serious physical injury as defined in section 13-105 to another person, the person is subject to a civil penalty of up to five hundred dollars.

(3) Results in an accident causing the death of another person, the person is subject to a civil penalty of up to one thousand dollars.

ARKANSAS
Applicable Section(s) 27-35-110

27-35-110. Spilling loads on highways prohibited - Covers required for loads of sand, gravel, and rock - Exceptions.

(a) No vehicle shall be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking, or otherwise escaping therefrom.

(b) Sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining the roadway.

(c) For a motor vehicle or a trailer with an open bed manufactured after September 30, 2001, no sand, gravel, or rock shall be transported on the paved public streets and highways of this state in a motor vehicle or trailer with an open bed unless the open bed is securely covered with a material which will prevent the load from dropping, sifting, leaking, or otherwise escaping therefrom. The cover shall be securely fastened to prevent the covering from becoming loose, detached, or in any manner a hazard to other users of the highway.

(d) For a motor vehicle or a trailer with an open bed manufactured on or before September 30, 2001, a vehicle with an open bed transporting sand, gravel, or rock is required to be covered as prescribed in subsection (c) of this section unless six inches (6") of freeboard is maintained at the perimeter of the load within the open bed of the vehicle or trailer carrying the load. Measurements are to be taken at the perimeter of the vehicle's or trailer's bed and measured from the top edge of the bed down to the sand, gravel, or rock being transported.

CALIFORNIA
Applicable Section(s) 23114 & 23115

23114.

(a) No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, covered, or loaded as to prevent any of its contents or load other than clear water or feathers from live birds from dropping, sifting, leaking, blowing, spilling, or otherwise escaping from the vehicle.

(b) (1) Aggregate material shall only be carried in the cargo area of a vehicle. The cargo area shall not contain any holes, cracks, or openings through which that material may escape, regardless of the degree to which the vehicle is loaded, except as provided in paragraph

(2) Every vehicle used to transport aggregate materials, regardless of the degree to which the vehicle is loaded, shall be equipped with all of the following:

(A) Properly functioning seals on any openings used to empty the load, including, but not limited to, bottom dump release gates and tailgates.

(B) Splash flaps behind every tire, or set of tires, regardless of position on the truck, truck tractor, or trailer.

(C) Center flaps at a location to the rear of each bottom dump release gate as to trucks or trailers equipped with bottom dump release gates. The center flap may be positioned directly behind the bottom dump release gate and in front of the rear axle of the vehicle, or it may be positioned to the rear of the rear axle in line with the splash flaps required behind the tires. The width of the center flap shall extend not more than one inch from one sidewall to the opposite sidewall of the inside tires and shall extend to within five inches of the pavement surface, and shall be not less than 24 inches from the bottom edge to the top edge of that center flap.

(D) Fenders starting at the splash flap with the leading edge of the fenders extending forward at least six inches beyond the center of the axle which cover the tops of tires not already covered by the truck, truck tractor, or trailer body.

(E) Complete enclosures on all vertical sides of the cargo area, including, but not limited to, tailgates.

(F) Shed boards designed to prevent aggregate materials from being deposited on the vehicle body during top loading.

(c) Vehicles comprised of full rigid enclosures are exempt only from subparagraphs (C) and (F) of paragraph (2) of subdivision (b).

(d) For purposes of this section, "aggregate material" means rock fragments, pebbles, sand, dirt, gravel, cobbles, crushed base, asphalt, and other similar materials.

(e) (1) On and after September 1, 1990, in addition to subdivisions (a) and (b), no vehicle shall transport any aggregate material upon a highway unless the material is covered

(2) Vehicles transporting loads composed entirely of asphalt material are exempt only from the provisions of this section requiring that loads be covered.

(3) Vehicles transporting loads composed entirely of petroleum coke material shall not be required to cover their loads if they are loaded using safety procedures, specialized equipment, and a chemical surfactant designed to prevent materials from blowing, spilling, or otherwise escaping from the vehicle.

(4) Vehicles transporting loads of aggregate materials shall not be required to cover their loads if the load, where it contacts the sides, front, and back of the cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area.

(5) The requirements of this subdivision shall become operative on September 1, 1990.

(f) Any person who provides a location for vehicles to be loaded with any aggregate material or any other material shall provide a location for vehicle operators to comply with this section before entering a highway.

(1) A person shall be exempt from the requirements of this subdivision if the location that he or she provides for vehicles to be loaded with the materials described in this subdivision has 100 yards or less between the scale houses where the trucks carrying aggregate material are weighed and the point of egress to a public road.

(2) Drivers of vehicles loaded with aggregate material leaving locations exempted from the requirements of this subdivision are authorized to operate on public roads only until they are able to safely cover the load at a site near the location's point of egress to the public road, however, an uncovered vehicle shall not be operated more than 200 yards from the point of egress to the public road.

23115.

(a) No vehicle transporting garbage, swill, used cans or bottles, wastepapers, waste cardboard, ashes, refuse, trash, or rubbish, or any noisome, nauseous, or offensive matter, or anything being transported for disposal or recycling shall be driven or moved upon any highway unless the load is totally covered in a manner that will prevent the load or any part of the load from spilling or falling from the vehicle.

(b) Subdivision (a) does not prohibit a rubbish vehicle from being without cover while in the process of acquiring its load if no law, administrative regulation, or local ordinance requires that it be covered in those circumstances.

(c) Vehicles transporting wastepaper, waste cardboard, or used cans or bottles, are in compliance with subdivision (a) if appropriate binders including, but not limited to, bands, wires, straps, or netting are used to prevent the load, or any part of the load, from spilling or falling from the vehicle.

(d) This section does not apply to any vehicle engaged in transporting wet waste fruit or vegetable matter, or waste products to or from a food processing establishment.

COLORADO
Applicable Section(s) 42-4-1407

42-4-1407. Spilling loads on highways prohibited - prevention of spilling of aggregate, trash, or recyclables.

(1) No vehicle shall be driven or moved on any highway unless such vehicle is constructed or loaded or the load thereof securely covered to prevent any of its load from blowing, dropping, sifting, leaking, or otherwise escaping therefrom; except that material may be dropped for the purpose of securing traction or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.

(2) (Deleted by amendment, L. 99, p. 295, § 1, effective July 1, 1999.)

(2.4) (a) A vehicle shall not be driven or moved on a highway if the vehicle is transporting trash or recyclables unless at least one of the following conditions is met:

(I) The load is covered by a tarp or other cover in a manner that prevents the load from blowing, dropping, shifting, leaking, or otherwise escaping from the vehicle;

(II) The vehicle utilizes other technology that prevents the load from blowing, dropping, shifting, leaking, or otherwise escaping from the vehicle;

(III) The load is required to be secured under and complies with 49 CFR parts 392 and 393; or

(IV) The vehicle is loaded in such a manner or the load itself has physical characteristics such that the contents will not escape from the vehicle. Such a load may include, but is not limited to, heavy scrap metal or hydraulically compressed scrap recyclables.

(b) Paragraph (a) of this subsection (2.4) shall not apply to a motor vehicle in the process of collecting trash or recyclables within a one-mile radius of the motor vehicle's last collection point.

(2.5) (a) No vehicle shall be driven or moved on any highway for a distance of more than two miles if the vehicle is transporting aggregate material with a diameter of one inch or less unless:

(I) The load is covered by a tarp or other cover in a manner that prevents the aggregate material from blowing, dropping, sifting, leaking, or otherwise escaping from the vehicle; or

(II) The vehicle utilizes other technology that prevents the aggregate material from blowing, dropping, sifting, leaking, or otherwise escaping from the vehicle.

(b) Nothing in this subsection (2.5) shall apply to a vehicle:

(I) Operating entirely within a marked construction zone;

(II) Involved in maintenance of public roads during snow or ice removal operations; or

(III) Involved in emergency operations when requested by a law enforcement agency or an emergency response authority designated in or pursuant to section 29-22-102, C.R.S.

(2.7) For the purposes of this section:

(a) "Aggregate material" means any rock, clay, silts, gravel, limestone, dimension stone, marble, and shale; except that "aggregate material" does not include hot asphalt, including asphalt patching material, wet concrete, or other materials not susceptible to blowing.

(b) "Recyclables" means material or objects that can be reused, reprocessed, remanufactured, reclaimed, or recycled.

(c) "Trash" means material or objects that have been or are in the process of being discarded or transported.

(3) (a) Except as otherwise provided in paragraph (b) or (c) of this subsection (3), any person who violates any provision of this section commits a class B traffic infraction.

(b) Any person who violates any provision of this section while driving or moving a car or pickup truck without causing bodily injury to another person commits a class A traffic infraction.

(c) Any person who violates any provision of this section while driving or moving a car or pickup truck and thereby proximately causes bodily injury to another person commits a class 2 misdemeanor traffic offense.

Source: L. 94: Entire title amended with relocations, p. 2393, § 1, effective January 1, 1995. L. 98: Entire section amended, p. 1101, § 22, effective June 1; entire section amended, p. 4252, § 2, effective June 4. L. 99: Entire section amended, p. 295, § 1, effective July 1. L. 2004: (3) amended, p. 241, § 1, effective July 1; (2.4) added and (2.7) amended, p. 412, § 1, effective August 4. L. 2005: (2.4)(a) amended, p. 104, § 1, effective April 5.

CONNECTICUT
Applicable Section(s) 14-271 & 14-262

Sec. 14-271. Securing of loads.

(a) No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping there from in such manner or quantity as to constitute a hazard or nuisance to other users of the highway, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.

(b) No person shall operate on any highway any vehicle with any load unless such load and any covering thereon is securely fastened so as to prevent such covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

(c) No person shall operate on any highway any vehicle having a gross weight of five thousand pounds or more which is designed and used exclusively for the collection and transportation of refuse and which has a separable container with an open top unless the contents of such container are secured by the use of a screen or other material having perforations of a size not greater than two square inches when such container is attached to such vehicle.

(d) The provisions of this section shall not apply to motor vehicles registered as farm motor vehicles or vehicles used for farming purposes.

(e) Violation of any provision of this section shall be an infraction for each offense.

Sec. 14-262. Width and length of vehicles. Exceptions. Permits.

(a) The following vehicles shall not be operated upon any highway or bridge without a special written permit from the Commissioner of Transportation, as provided in section 14-270, specifying the conditions under which they may be so operated:

(1) A vehicle, combination of vehicle and trailer or commercial vehicle combination, including each such vehicle's load, which is wider than one hundred two inches or its approximate metric equivalent of two and six-tenths meters or one hundred two and thirty-six-hundredths inches, including its load, but not including the following safety devices: Reasonably sized rear view mirrors, turn signals, steps and handholds for entry and egress, spray and splash suppressant devices, load-induced tire bulge and any other state-approved safety device which the Commissioner of Transportation determines is necessary for the safe and efficient operation of such a vehicle or combination, provided no such state-approved safety device protrudes more than three inches from each side of the vehicle or provided no such device has by its design or use the capability to carry cargo. Such permit shall not be required in the case of (A) farm equipment, (B) a vehicle or combination of vehicle and trailer loaded with hay or straw, (C) a school bus equipped with a folding stop sign or exterior mirror, as approved by the Commissioner of Motor Vehicles, which results in a combined width of bus and sign or bus and mirror in excess of that established by this subsection, or (D) a trailer designed and used exclusively for transporting boats when the gross weight of such boats does not exceed four thousand pounds; and

(2) A combination of truck and trailer which is longer than sixty-five feet except (A) a combination of truck and trailer or tractor and semitrailer loaded with utility poles, both trailer and semitrailer having a maximum length of forty-eight feet, utility poles having a maximum length of fifty feet and the overall length not to exceed eighty feet, (B) a trailer designed and used exclusively for transporting boats when the gross weight of such boats does not exceed four thousand pounds, (C) a tractor-trailer unit, (D) a commercial vehicle combination, (E) combinations of vehicles considered as specialized equipment in 23 CFR 658.13(e), as amended, or (F) a tractor equipped with a dromedary box operated in combination with a semitrailer which tractor and semitrailer do not exceed seventy-five feet in overall length.

(b) A special written permit may not be issued by the Commissioner of Transportation for a combination of vehicles consisting of a vehicle drawing a combination of three or more trailers or semitrailers, except any such combination engaged in the transportation of an indivisible load.

(c) The maximum length of a single unit vehicle shall be forty-five feet and the maximum length of the semitrailer portion of a tractor-trailer unit shall be forty-eight feet. A trailer greater than forty-eight feet and less than or equal to fifty-three feet in length, that has a distance of no more than forty-three feet between the kingpin and the center of the rearmost axle with wheels in contact with the road surface, may be operated on (1) unless posted otherwise, United States and Connecticut routes numbered from 1 to 399, inclusive, 450, 476, 508, 693 and 695 and the national system of interstate and defense highways, and (2) state and local roads for up to one mile from the routes and system specified in subdivision (1) of this subsection for access to terminals, facilities for food, fuel, repair and rest, and points of loading and unloading. The Commissioner of Transportation shall permit additional routes upon application of carriers or shippers provided the proposed additional routes meet the permit criteria of the Department of Transportation. Such length limitation shall be exclusive of safety and energy conservation devices, such as refrigeration units, air compressors or air shields and other devices, which the Secretary of the federal Department of Transportation may interpret as necessary for the safe and efficient operation of such vehicles, provided no such device has by its design or use the capability to carry cargo.

(d) Violation of any provision of this section shall be subject to a fine of five hundred dollars.

DELAWARE
Applicable Section(s) 4371

4371. Constructions of Vehicles to Prevent Escape of Contents; Penalty

a. No vehicle shall be driven or moved on any highway unless it is so constructed or loaded as to prevent its contents from dropping, sifting, leaking, or otherwise escaping therefrom.

b. Whoever violates subsection (a) of this section shall, for the first offense be fined not less than \$10, nor more than \$28.75. For each s subsequent like offense the person shall be fined not less than \$28.75 nor more than \$100.

DISTRICT OF COLUMBIA
Applicable Section(s) 50-2101

§ 50-2101. Vehicle cover requirement; penalty [Formerly § 40-499.1]

(a) No person shall operate any vehicle on the public roadways of the District of Columbia carrying loose debris or loose cargo that could be dislodged from the vehicle without covering and restraining the loose debris or loose cargo so as to render the material immobile. The provisions of this section shall not apply when loose debris or loose cargo is loaded so that the height of the cargo against the sides of the vehicle container does not extend above a point 6 inches below the top of the vehicle container and no portion of the load extends above the top of the vehicle container.

(b) The penalty for violating this section shall be a civil fine not to exceed \$500.

(c) Nothing in this section shall be construed to repeal the requirements or penalties provided in 18 DCMR 2503.2, 20 DCMR 605.1(c), and 24 DCMR 1007.

(1981 Ed., § 40-499.1; May 10, 1988, D.C. Law 7-108, § 2, 35 DCR 2179.)

FLORIDA
Applicable Section(s) 316.520 & 316.525

316.520. Loads on Vehicles

(1) A vehicle may not be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, shifting, leaking, blowing, or otherwise escaping therefrom, except that sand may be dropped only for the purpose of securing traction or water or other substance may be sprinkled on a roadway in cleaning or maintaining the roadway.

(2) It is the duty of every owner and driver, severally, of any vehicle hauling, upon any public road or highway open to the public, dirt, sand, lime rock, gravel, silica, or other similar aggregate or trash, garbage, any inanimate object or objects, or any similar material that could fall or blow from such vehicle, to prevent such materials from falling, blowing, or in any way escaping from such vehicle. Covering and securing the load with a close-fitting tarpaulin or other appropriate cover or a load securing device meeting the requirements of 49 C.F.R. s. 393.100 or a device designed to reasonably ensure that cargo will not shift upon or fall from the vehicle is required and shall constitute compliance with this section.

(3)(a) Except as provided in paragraph (b), a violation of this section is a noncriminal traffic infraction, punishable as a nonmoving violation as provided in chapter 318.

(b) Any person who willfully violates the provisions of this section which offense results in serious bodily injury or death to an individual and which offense occurs as a result of failing to comply with subsections (1) and (2) commits a criminal traffic offense and a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

(4) The provision of subsection (2) requiring covering and securing the load with a close-fitting tarpaulin or other appropriate cover does not apply to vehicles carrying agricultural products locally from a harvest site or to or from a farm on roads where the posted speed limit is 65 miles per hour or less and the distance driven on public roads is less than 20 miles.

History.—s. 1, ch. 71-135; s. 1, ch. 73-174; s. 1, ch. 74-111; s. 1, ch. 76-31; ss. 5, 235, ch. 99-248; ss. 70, 106, ch. 2002-20; s. 4, ch. 2002-235.

Note.—Former s. 316.198.

316.525 Requirements for vehicles hauling loads.

(1) It is the duty of every owner, licensee, and driver, severally, of any truck, trailer, semitrailer, or pole trailer to use such stanchions, standards, stays, supports, or other equipment, appliances, or contrivances, together with one or more lock chains, when lock chains are the most suitable means of fastening the load, or together with nylon strapping, when nylon strapping is the most suitable means of securing the load, so as to fasten the load securely to the vehicle.

(2) The Department of Transportation shall promulgate rules with respect to the type and suitability of nylon strapping to be used in compliance with this section.

(3) A violation of this section is a noncriminal traffic infraction, punishable as a nonmoving violation as provided in chapter 318.

History.—s. 1, ch. 71-135; s. 1, ch. 76-31; ss. 1, 2, ch. 80-229; s. 190, ch. 81-259; s. 236, ch. 99-248.

Note.—Former s. 316.280.

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Date Accessed: Feb. 2015

GEORGIA
Applicable Section(s) 40-6-248.1 & 40-6-254

40-6-248.1. Securing loads on vehicles

(a) As used in this Code section, the term "litter" has the meaning provided by paragraph (1) of Code Section 16-7-42.

(a.1) No vehicle shall be driven or moved on any public road unless such vehicle is constructed or loaded or covered so as to prevent any of its load from dropping, escaping, or shifting in such a manner as to:

- (1) Create a safety hazard; or
- (2) Deposit litter on public or private property while such vehicle is on a public road.

However, this Code section shall not prohibit the necessary spreading of any substance in public road maintenance or construction operations.

(b) No person shall operate or load for operation, on any public road, any vehicle with any load unless such load and any covering thereon is securely fastened so as to prevent such covering or load from:

- (1) Becoming loose, detached, or in any manner becoming a hazard to other users of the public road; or
- (2) Depositing litter on public or private property while such vehicle is on a public road.

(c) No motor carrier shall allow a commercial motor vehicle to be driven and no person shall operate a commercial motor vehicle with a load that is not secure. Loads shall be secured as required by state and federal law, rule, and regulation. As used in this subsection, the term "load" shall include loads consisting of liquids and gases as well as solid materials.

(d) Nothing in this Code section nor any regulations based thereon shall conflict with federal, Department of Public Safety, or Board of Public Safety regulations applying to the securing of loads on motor vehicles.

(e) The provisions of paragraph (2) of subsection (a) and paragraph (2) of subsection (b) of this Code section and regulations based thereon shall not apply to organic debris that escapes during the transportation of silage from field or farm to storage and storage to feedlot or during the transportation of agricultural or farm products or silvicultural products from farm or forest to a processing plant or point of sale or use.

HISTORY: Code 1933, § 95A-955, enacted by Ga. L. 1973, p. 947, § 1; Ga. L. 1981, p. 705, § 1; Ga. L. 2002, p. 1270, § 1; Code 1981, § 32-6-21; Code 1981, § 40-6-248.1, as redesignated by Ga. L. 2006, p. 275, § 3-9/HB 1320; Ga. L. 2012, p. 580, § 10/HB 865; Ga. L. 2013, p. 141, §

40/HB 79; Ga. L. 2013, p. 838, § 18/HB 323.

40-6-254. Operating vehicle without adequately securing load

No person shall operate any motor vehicle with a load on or in such vehicle unless the load on or in such vehicle is adequately secured to prevent the dropping or shifting of such load onto the roadway in such a manner as to create a safety hazard. Any person who operates a vehicle in violation of this Code section shall be guilty of a misdemeanor.

HISTORY: Code 1981, § 40-6-254, enacted by Ga. L. 1992, p. 1967, § 2; Ga. L. 2002, p. 1270, § 2.

HAWAII
Applicable Section(s) 291C-131

§291C-131. Spilling Loads on Highways, penalties.

(a) No vehicle shall be moved on any highway, unless the vehicle is so constructed, covered, or loaded as to prevent any of its load other than clear water or feathers from live birds from dropping, sifting, leaking, blowing, spilling, or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substances may be sprinkled on a highway in cleaning or maintaining the highway.

(b) No vehicle shall be driven or moved on any highway when any load thereon is not entirely within the body of the vehicle; provided that this prohibition shall not apply if the load is securely fastened by means of clamps, ropes, straps, cargo nets, or other suitable mechanical device to prevent such load from dropping onto the highway or from shifting in any manner and, further, no vehicle shall be operated on any highway with any load thereon projecting beyond the extreme width of the vehicle.

(c) Vehicles carrying agricultural produce from fields during harvesting shall be exempt from the requirements of this section but the owner of the vehicle must provide for the reasonable removal of all such produce spilled or dropped on the highway.

(d) No vehicle shall be driven or moved on any highway with any load if the load is not entirely covered by a cargo net, tarpaulin, canopy, or other material designed to cover the load to prevent the load from escaping from the vehicle, where the load consists partially or entirely of loose paper, loose rubbish, plastics, empty cartons, dirt, sand or gravel.

(e) Vehicles transporting a granular load consisting of dirt, sand or gravel on any highway shall not be required to cover their granular load if the granular load does not extend, at its peak, above any point on a horizontal plane equal in height to the top of the side, front, or rear part of the cargo container area that is the least in height.

(f) No vehicle shall be driven or moved on any highway with a load consisting of rocks, stones or boulders if the load, at its peak, extends above any point on a horizontal plane equal in height to the top of the side, front, or rear part of the cargo container area that is the least in height.

(g) Violation of this section shall be considered an offense as defined in section 701-107 (5), shall not be subject to the provisions of chapter 291D, and shall subject the owner or driver of the vehicle, or both, to the following penalties without possibility of probation or suspension of sentence:

(1) For a first violation, by a fine of not less than \$250 and not more than \$500.

(2) For a second violation involving a vehicle or driver previously cited under this section within one year:

(A) Suspension of the vehicle registration or suspension of the license of the driver, or both, for not less than five working days but not more than ten working days; and

(B) A fine of not less than \$500 and not more than \$750.

(3) For a third or subsequent violation involving a vehicle or driver previously cited under this section within one year:

(A) Suspension of the vehicle registration or suspension of the license of the driver, or both, for a period of thirty calendar days; and

(B) A fine of not less than \$750 and not more than \$1,000.

In imposing a fine under this subsection, the court, in this discretion, may apportion payment of the fine between the driver of the vehicle and the owner of the vehicle according to the court's determination of the degree of fault for the violation.

For the purposes of this subsection, a truck-trailer combination and tractor-semi trailer combination, as they are defined in section 286-2, shall be considered as one vehicle. [L 1976, c 137, §1; am L 1986, c 175, §1; am L 189, c 301, §1; am L 1990, c 121, §1; am L 2000, c 100, §1]

IDAHO
Applicable Section(s) 393.100 -114

393.100 Which types of commercial motor vehicles are subject to the cargo securement standards of this subpart, and what general requirements apply?

(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?

(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).

© **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?

(a) **General.** All devices and systems used to secure cargo to or within a vehicle must be capable of meeting the requirements of § 393.102.

(b) **Prohibition on the use of damaged securement devices.** All tiedowns, cargo securement systems, parts and components used to secure cargo must be in proper working order when used to perform that function with no damaged or weakened components, such as, but not limited to, cracks or cuts that will adversely affect their performance for cargo securement purposes, including reducing the working load limit.

(c) **Vehicle structures and anchor points.** Vehicle structures, floors, walls, decks, tiedown anchor points, headerboards, bulkheads, stakes, posts, and associated mounting pockets used to contain or secure articles of cargo must be strong enough to meet the performance criteria of § 393.102, with no damaged or weakened components, such as, but not limited to, cracks or cuts that will adversely affect their performance for cargo securement purposes, including reducing the working load limit.

(d) **Material for dunnage, chocks, cradles, shoring bars, blocking and bracing.** Material used as dunnage or dunnage bags, chocks, cradles, shoring bars, or used for blocking and bracing, must not have damage or defects which would compromise the effectiveness of the securement system.

(e) **Manufacturing standards for tiedown assemblies.** 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 conform to the following applicable standards:

An assembly component of . . .	Must conform to . . .
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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

An assembly component of . . . Must conform to . . .

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.

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|------------------------------------|--|
| (1) Steel strapping ^{1,2} | Standard Specification for Strapping, Flat Steel and Seals, American Society for Testing and Materials (ASTM) D3953-97, February 1998. ⁴ |
| (2) Chain | National Association of Chain Manufacturers' Welded Steel Chain Specifications, dated September 28, 2005. ⁴ |
| (3) Webbing | Web Sling and Tiedown Association's Recommended Standard Specification for Synthetic Web Tiedowns, WSTDA-T1, 1998. ⁴ |
| (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) PETERS-2, Polyester Fiber Rope, three-Strand and eight-Strand Constructions, January 1993; ⁴
(ii) PPRS-2, Polypropylene Fiber Rope, three-Strand and eight-Strand Constructions, August 1992; ⁴
(iii) CRS-1, Polyester/Polypropylene Composite Rope Specifications, three-Strand and eight-Strand Standard Construction, May 1979; ⁴
(iv) NRS-1, Nylon Rope Specifications, three-Strand and eight-Strand Standard Construction, May 1979; ⁴ and
(v) C-1, Double Braided Nylon Rope Specifications DBN, January 1984. ⁴ |

(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?

(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?

(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.

Tables to § 393.108

[Working Load Limits (WLL), Chain]

Size mm (inches)	WLL in kg (pounds)				
	Grade 30 proof coil	Grade 43 high test	Grade 70 transport	Grade 80 alloy	Grade 100 alloy
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

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 × 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)

Polyester Fiber Rope WLL (3-Strand and 8-Strand Constructions)

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)

Nylon Rope

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)

Double Braided Nylon Rope

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)

Steel Strapping

Width × thickness mm (inches)WLL kg (pounds)

31.7 × .74 (1 ¹ / ₄ × 0.029)	540 (1,190)
31.7 × .79 (1 ¹ / ₄ × 0.031)	540 (1,190)
31.7 × .89 (1 ¹ / ₄ × 0.035)	540 (1,190)
31.7 × 1.12 (1 ¹ / ₄ × 0.044)	770 (1,690)
31.7 × 1.27 (1 ¹ / ₄ × 0.05)	770 (1,690)
31.7 × 1.5 (1 ¹ / ₄ × 0.057)	870 (1,925)
50.8 × 1.12 (2 × 0.044)	1,200 (2,650)
50.8 × 1.27 (2 × 0.05)	1,200 (2,650)

393.110 What else do I have to do to determine the minimum number of tiedowns?

(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?

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?

(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]

393.114 What are the requirements for front end structures used as part of a cargo securement system?

(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]

ILLINOIS
Applicable Section(s) 15-109.1

15-109.1. Covers or Tarpaulins Required for Certain Loads

(a) No person shall operate or cause to be operated, on a highway, any second division vehicle loaded with dirt, aggregate, garbage, refuse, or other similar material, when any portion of the load is falling, sifting, blowing, dropping or in any way escaping from the vehicle.

(b) No person shall operate or cause to be operated, on a highway, any second division vehicle having a gross vehicle weight rating of 8,000 pounds or more loaded with dirt, aggregate, garbage, refuse, or other similar material in or on any part of the vehicle other than in the cargo area. In addition, no person shall operate on any highway, such vehicle unless the tailgate on the vehicle is in good repair and operating condition and closes securely so as to prevent any load, residue, or other material from escaping.

(c) This Section shall not apply to the operation of highway maintenance vehicles engaged in removing snow and ice from the roadway, nor to implements of husbandry or other farm vehicles while transporting agricultural products to or from the original place of production.

(d) For the purpose of this Section "aggregate" shall include all ores, minerals, sand, gravel, shale, coal, clay, limestone or any other ore or mineral which may be mined.

(e) Notwithstanding any other penalty, whenever a police officer determines that the operator of a vehicle is in violation of this Section, as evidenced by the issuance of a citation for a violation of Section 15-109.1 of this Code, or where a police officer determines that a dangerous condition exists whereby any portion of the load may fall, sift, blow, drop, or in any way escape or fall from the vehicle, the police officer shall require the operator to stop the vehicle in a suitable place and keep such vehicle stationary until the load has either been reduced, secured, or covered with a cover or tarpaulin of sufficient size to prevent any further violation of this Section.

(f) Any violation of the provisions of this Section shall be a petty offense punishable by a fine not to exceed \$250.

(Source: P.A. 91-858, eff. 1-1-01.)

INDIANA
Applicable Section(s) IC 8-2.1-24-18 & IC 9-21-8-48

IC 8-2.1-24-18

Compliance with federal motor carrier safety regulations

Sec. 18. (a) 49 CFR Parts 40, 375, 380, 382 through 387, 390 through 393, and 395 through 398 are incorporated into Indiana law by reference, and, except as provided in subsections (d), (e), (f), (g), (j), (k), and (l), must be complied with by an interstate and intrastate motor carrier of persons or property throughout Indiana. Intrastate motor carriers subject to compliance reviews under 49 CFR 385 shall be selected according to criteria determined by the superintendent which must include but are not limited to factors such as previous history of violations found in roadside compliance checks and other recorded violations. However, the provisions of 49 CFR 395 that regulate the hours of service of drivers, including requirements for the maintenance of logs, do not apply to a driver of a truck that is registered by the bureau of motor vehicles and used as a farm truck under IC 9-18, or a vehicle operated in intrastate construction or construction related service, or the restoration of public utility services interrupted by an emergency. Except as provided in subsection (i) and (j):

- (1) intrastate motor carriers not operating under authority issued by the United States Department of Transportation shall comply with the requirements of 49 CFR 390.21(b)(3) by registering with the department of state revenue as an intrastate motor carrier and displaying the certification number issued by the department of state revenue preceded by the letters "IN"; and
- (2) all other requirements of 49 CFR 390.21 apply equally to interstate and intrastate motor carriers.

(b) 49 CFR 107 subpart (F) and subpart (G), 171 through 173, 177 through 178, and 180, are incorporated into Indiana law by reference, and every:

- (1) private carrier;
- (2) common carrier;
- (3) contract carrier;
- (4) motor carrier of property, intrastate;
- (5) hazardous material shipper; and
- (6) carrier otherwise exempt under section 3 of this chapter; must comply with the federal regulations incorporated under this subsection, whether engaged in interstate or intrastate commerce.

(c) Notwithstanding subsection (b), nonspecification bulk and

nonbulk packaging, including cargo tank motor vehicles, may be used only if all the following conditions exist:

- (1) The maximum capacity of the vehicle is less than three thousand five hundred (3,500) gallons.
- (2) The shipment of goods is limited to intrastate commerce.
- (3) The vehicle is used only for the purpose of transporting fuel oil, kerosene, diesel fuel, gasoline, gasohol, or any combination of these substances.

Maintenance, inspection, and marking requirements of 49 CFR 173.8 and Part 180 are applicable. In accordance with federal hazardous materials regulations, new or additional nonspecification cargo tank motor vehicles may not be placed in service under this subsection.

(d) For the purpose of enforcing this section, only:

(1) a state police officer or state police motor carrier inspector who:

- (A) has successfully completed a course of instruction approved by the United States Department of Transportation; and
- (B) maintains an acceptable competency level as established by the state police department; or

(2) an employee of a law enforcement agency who:

- (A) before January 1, 1991, has successfully completed a course of instruction approved by the United States Department of Transportation; and
- (B) maintains an acceptable competency level as established by the state police department; on the enforcement of 49 CFR, may, upon demand, inspect the books, accounts, papers, records, memoranda, equipment, and premises of any carrier, including a carrier exempt under section 3 of this chapter.

(e) A person hired before September 1, 1985, who operates a motor vehicle intrastate incidentally to the person's normal employment duties and who is not employed as a chauffeur (as defined in IC 9-13-2-21(a)) is exempt from 49 CFR 391 as incorporated by this section.

(f) Notwithstanding any provision of 49 CFR 391 to the contrary, a person at least eighteen (18) years of age and less than twenty-one (21) years of age may be employed as a driver to operate a commercial motor vehicle intrastate. However, a person employed under this subsection is not exempt from any other provision of 49 CFR 391.

(g) Notwithstanding subsection (a) or (b), the following provisions of 49 CFR do not apply to private carriers of property operated only in intrastate commerce or any carriers of property operated only in intrastate commerce while employed in construction or construction related service:

- (1) Subpart 391.41(b)(3) as it applies to physical qualifications

of a driver who has been diagnosed as an insulin dependent diabetic, if the driver has applied for and been granted an intrastate medical waiver by the bureau of motor vehicles pursuant to this subsection. The same standards and the following procedures shall apply for this waiver whether or not the driver is required to hold a commercial driver's license. An application for the waiver shall be submitted by the driver and completed and signed by a certified endocrinologist or the driver's treating physician attesting that the driver:

- (A) is not otherwise physically disqualified under Subpart 391.41 to operate a motor vehicle, whether or not any additional disqualifying condition results from the diabetic condition, and is not likely to suffer any diminution in driving ability due to the driver's diabetic condition;
- (B) is free of severe hypoglycemia or hypoglycemia unawareness and has had less than one (1) documented, symptomatic hypoglycemic reaction per month;
- (C) has demonstrated the ability and willingness to properly monitor and manage the driver's diabetic condition;
- (D) has agreed to and, to the endocrinologist's or treating physician's knowledge, has carried a source of rapidly absorbable glucose at all times while driving a motor vehicle, has self monitored blood glucose levels one (1) hour before driving and at least once every four (4) hours while driving or on duty before driving using a portable glucose monitoring device equipped with a computerized memory;

IC 9-21-8-48 Vehicles with contents escaping; prohibition from operation; exceptions

Sec. 48. A vehicle, except:

- (1) a vehicle containing poultry or livestock being transported to market; or
- (2) a highway maintenance vehicle engaged in spreading sand or deicing chemicals; may not be driven or moved on a highway if the vehicle's contents are dripping, sifting, leaking, or otherwise escaping from the vehicle.

As added by P.L.2-1991, SEC.9. Amended by P.L.79-1991, SEC.4.

IOWA
Applicable Section(s) 321.460

321.460. Spilling Loads on Highways.

A vehicle shall not be driven or moved on any highway by any person unless such vehicle is so constructed or loaded or the load securely covered as to prevent any of its load from dropping, sifting, leaking, or otherwise escaping or its load covering from dropping from the vehicle, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway. The provisions of this section shall not apply to vehicles loaded with hay or stover or the products listed in section 321.466, subsections 5 and 6.

[C39, §5035.09; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §321.460]
For applicable scheduled fine, see §805.8A, subsection 13, paragraph c.

KANSAS
Applicable Section(s) 8-1906

8-1906. Securing Loads on Vehicles; Requirements for Hauling Livestock

(a) No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that:

(1) This section shall not prohibit the necessary spreading of any substance in highway maintenance or construction operations; and

(2) Subsections (a) and (c) shall not apply to trailers or semi-trailers when hauling livestock if such trailers or semi-trailers are properly equipped with a cleanout trap and such trap is operated in a closed position unless material is intentionally spilled when the trap is in a closed position. Paragraph (2) shall not apply to trailers or semi-trailers used for hauling livestock when livestock are not being hauled in such trailers or semi-trailers.

(b) All trailers or semi-trailers used for hauling livestock shall be cleaned out periodically.

(c) No person shall operate on any highway any vehicle with any load unless such load and any covering thereon is securely fastened so as to prevent the covering of load from becoming loose, detached or in any manner a hazard to other users of the highway.

History: L. 1974, ch 33, &8-1906; L. 1984, ch. 41, & 1; 1989, ch.45, &1; July 1

Source:

http://www.kslegislature.org/li/b2015_16/statute/008_000_0000_chapter/008_019_0000_article/

Date Accessed: Feb 2015

KENTUCKY
Applicable Section(s) 177.305 & 189.150

177.305 Prevention of spillage from trucks hauling coal.

All trucks hauling coal on a fully controlled limited access highway shall be covered by a tarp or equivalent cover to prevent spillage.

Effective: July 15, 1988 History: Created 1988 Ky. Acts ch. 415, sec. 3, effective July 15, 1988.

189.150 Escaping Contents - Shifting or Spilling Loads

(1) No vehicle shall be operated upon any highway unless it is so constructed as to prevent its contents from escaping.

(2) No vehicle shall be operated upon any public highway for a distance of over one (1) mile whose load is susceptible to shifting or spillage unless said load is covered with a device suitable for prevention of spillage.

Effective: July 15, 1982 History: Amended 1982 Ky. Acts ch. 203, sec. 14, effective July 15, 1982. -- Recodified 1942 Ky. Acts ch. 208, sec. 1, effective October 1, 1942, from Ky. Stat. sec. 2739g-49.

LOUISIANA
Applicable Section(s) 32:383-383.1

§383. Loads on vehicles; care required thereto; penalties; definition

A.

(1) The load on a vehicle shall not drop, sift, leak, or otherwise escape therefrom, except that sand may be dropped on a highway to secure traction or a liquid substance may be dropped on a highway to clean or maintain such highway.

(2) Any load of garbage, refuse, sludge, and other discarded material being transported by a commercial hauler shall be covered while being transported in such a manner as to prevent the load from spilling or dropping from the vehicle.

(3) Any violation of Paragraph (2) of this Subsection for failure to cover any load of garbage, refuse, sludge, and other discarded material shall be punishable by a fine of not more than five hundred dollars or by imprisonment for not more than six months, or both.

(4) The penalty provisions of Paragraph (3) of this Subsection shall not apply when the load was properly covered and subsequently became uncovered as the result of an accident or circumstances beyond the control of the operator of the vehicle.

B.

(1) The load on any vehicle shall be securely fastened so as to prevent the covering or load from becoming loose, detached, or in any manner a hazard to other users of the highway.

(2) Freight containers, as defined in 49 CFR 171.8, used in both the waterborne transport of cargo and in the overland transport of cargo shall be properly secured so as to prevent the container from becoming loose, detached, or in any manner a hazard to other users of the highway.

(3) Any violation of Paragraph (2) of this Subsection shall be punishable by a fine of not more than five hundred dollars or by imprisonment for not more than six months, or both.

(4) The penalty provisions of R.S. 32:383(B)(3) shall not apply when the freight container was properly secured and subsequently became loose or detached as the result of an accident or circumstances beyond the control of the operator of the vehicle.

C. "Loose material" means dirt, sand, gravel, or other material that is capable of blowing or spilling from a vehicle as a result of movement or exposure to air, wind currents, or weather, but shall not include agricultural products in their natural state or wood chips.

Acts 1977, No. 113, §1, eff. June 22, 1977. Amended by Acts 1982, No. 257, §1; Acts 1985, No. 936, §1; Acts 1990, No. 928, §1; Acts 2006, No. 302, §1.

§383.1. Loads of loose materials on vehicles; care required thereto; penalties

A. Any load of loose material as defined in R.S. 32:383(C) being transported by a commercial hauler, or in a vehicle purchased by the state or any political subdivision of this state after August 15, 1999, shall be covered in such a manner as to prevent the load from blowing, spilling, or dropping from the vehicle. However, a load of dirt or sand shall be exempt from the provisions of this Section if the load is being transported within a municipality with a population of not less than ten thousand five hundred nor more than eleven thousand two hundred in a parish with a population of no less than thirty-one thousand two hundred fifty nor no more than thirty-two thousand five hundred all according to the latest decennial census, and the speed of the vehicle transporting the load does not exceed twenty-five miles per hour.

B. Any violation of this Section for failure to cover a load of loose material while being transported shall be punishable by a fine of not less than one hundred dollars or more than two hundred dollars.

Acts 1991, No. 555, §1; Acts 1995, No. 544, §1; Acts 1999, No. 258, §1; Acts 2001, No. 787, §1; Acts 2001, No. 1205, §1.

MAINE
Applicable Section(s) §2396 & 2397

§2396. Certain substances on public ways

1. Injurious substances. A person may not place on a way a tack, nail, wire, scrap metal, glass, crockery or other substance that may injure feet, tires or wheels. If a person accidentally places such substance on a way, that person shall immediately make all reasonable efforts to clear the way of that substance.

2. Unsecured load. A person may not operate on a public way a vehicle with a load that is not fastened, secured, confined or loaded to reasonably prevent a portion from falling off.

For the purposes of this section “load” includes, but is not limited to, firewood, pulpwood, logs, bolts or other material, but does not include loose hay, pea vines, straw, grain or cornstalks.

When the load consists of sawdust, shavings or wood chips, and a reasonable effort has been made to completely cover the load, minor amounts blown from the vehicle while in transit do not constitute a violation.

A violation of this section is a traffic infraction subject to a forfeiture of not less than \$150 nor more than \$500.

3. Gravel. A load of gravel, sand, crushed stone, rubbish, building debris or trash must be covered or otherwise secured or confined to prevent any portion of the load from falling from or spilling out of the vehicle.

4. Snow. A person may not place and allow to remain on a public way snow or slush that has not accumulated there naturally.

SECTION HISTORY

1993, c. 683, §A2 (NEW). 1993, c. 683, §B5 (AFF). 2001, c. 144, §2 (AMD). 2001, c. 360, §16 (AMD). 2003, c. 452, §§Q75,76 (AMD). 2003, c. 452, §X2 (AFF)

§2397 Menacing or damaging vehicles

The Secretary of State may revoke or suspend the certificate of registration of a vehicle that is:

1. Menace. So constructed that when in operation the vehicle is a menace to the safety of its occupants or to the public; or

2. Damage. So constructed or operated as to cause unreasonable damage to public ways or bridges.

[1993, c. 683, Pt. A, §2 (NEW); 1993, c. 683, Pt. B, §5 (AFF) .]

SECTION HISTORY

1993, c. 683, §A2 (NEW). 1993, c. 683, §B5 (AFF).

Source: <http://www.mainelegislature.org/legis/statutes/search.htm>
Date Accessed: Feb. 2015

MARYLAND
Applicable Section(s) 24-106 - 24-106.2

§ 24-106.

(a) This section and § 24-106.1 of this subtitle do not prohibit:

- (1) Dropping sand, abrasives, chemicals, or other materials to improve traction;
- (2) Spreading water or other substance to construct, clean or maintain a highway;

or

(3) Dropping asphalt or other materials for highway, bridge, storm drain, or utility construction or repair.

(b) A vehicle with any load may not be driven on any highway unless the vehicle is constructed or loaded to prevent any of its load from dropping, sifting, leaking, or otherwise escaping.

(c) A vehicle with any load may not be driven on any highway unless the load and any covering on the load are fastened securely to prevent the load or covering from becoming loose or detached or from in any way endangering other users of the highway.

(d) This section does not apply to agricultural products in their natural state or residue developed from processing vegetable agricultural products that can be used as feed for animals and that are being transported to a farm. This provision, however, does not prevent the enforcement of any rule or regulation promulgated by the Department of the Environment for the control of air pollution.

(e) The owner of a vehicle from which dirt, debris, or agricultural products has fallen on any highway is responsible for removing that dirt, debris, or agricultural products within a reasonable time.

§ 24-106.1.

(a) In this section:

(1) "Loose material" includes:

(i) Dirt, sand, gravel, wood chips, or other material that can blow, fall, or spill from a vehicle as a result of movement or of exposure to air, wind, or weather; and

(ii) Any other kind of material that can blow, fall, or spill, as specified in rules and regulations adopted by the Administrator; and

(2) "Loose material" does not include agricultural products, including sod, in their natural state.

(b) A person may not, in violation of this section, carry any loose material in any vehicle on or across any highway in this State.

(c) A person may not, in violation of this section, load any loose material for carrying in any vehicle on or across any highway in this State.

(d) (1) Subject to the provisions of subsection (e) of this section, the bed of the vehicle carrying a load of loose material shall be fully enclosed:

(i) On both sides, by sideboards or sidepanels;

(ii) On the front, by a board or panel or by the cab of the vehicle; and

(iii) On the rear, by a tailgate, board, or panel.

(2) (i) The enclosures required by paragraph (1) of this subsection shall be constructed so as to prevent any part of the load from blowing, falling, or spilling out of the vehicle.

(ii) No part of the load touching any of these enclosures may be within 6 inches of the top of the part of the enclosure that it touches, unless the load is covered with a firmly secured canvas or similar type covering.

(iii) If the vehicle manufacturer's original design specifications for bed enclosures have been altered to increase the vehicle's load capacity, no part of the load touching any of these enclosures may be within 6 inches of the top of the part of the enclosure that it touches and the highest point of the load may not be higher than any of these enclosures, unless the load is covered with a canvas or other type cover approved by the Administration that is secured as provided in subsection (e)(3) of this section.

(3) This subsection does not apply to:

(i) Any load-carrying vehicle with a compartment that fully encloses the load; or

(ii) A vehicle in which the load is suitably covered or secured by other means that prevent the escape of the loose material.

(e) (1) The provisions of this subsection do not apply to:

(i) Any Class K (farm area) vehicle as defined in § 13-935 of this article;

(ii) Any Class E (truck) vehicle registered or capable of being registered under § 13-917 of this article if the vehicle manufacturer's original design specifications for bed enclosures have not been altered to increase the vehicle's load capacity;

(iii) Any construction vehicle working within the confines of a public works construction project site as outlined in the construction project's plans and specifications, provided the distance traveled does not exceed 1 mile or the distance specified in an extension granted under subsection (g) of this section;

(iv) Any construction vehicle or mining equipment while crossing a highway between construction or mining sites;

(v) Any Class G (trailer) vehicle registered or capable of being registered under § 13-927 of this article, provided no part of the load is higher than 6 inches below the top of any of the enclosures required under subsection (d)(1) of this section; or

(vi) Within the Port of Baltimore for a distance not to exceed 1 mile, any vehicle carrying a load of loose material between a stockpile or storage facility and a vessel docked at the port.

(2) A vehicle carrying a load of loose material shall have its bed fully enclosed on the top by a canvas or other type cover approved by the Administration.

(3) Any cover required under this section shall be secured in a manner to prevent:

(i) Any part of the load from blowing, falling, or spilling out of the vehicle; and

(ii) The cover from blowing off the vehicle.

(f) (1) This subsection does not apply to any construction vehicle or mining equipment that:

(i) Is moving between construction barricades on a public works project; or

(ii) Only is crossing a highway.

(2) A vehicle used for carrying loose material may not be operated on any highway unless:

(i) All spillage from loading loose material is removed from the nonload-carrying parts of the vehicle;

(ii) Whether the vehicle is loaded or empty, the tailgate is closed securely to prevent spillage of a load or of any residue;

(iii) The bed does not have any holes, cracks, or openings through which loose material can escape; and

(iv) After unloading loose material, all residue is removed from the nonload-carrying parts of the vehicle.

(g) (1) Upon application by the supervisor of a construction project of the Department, the Department may grant a reasonable extension of the 1-mile limitation established in subsection (e)(1)(iii) of this section if the Department determines that the extension request meets the criteria developed under paragraph (2) of this subsection and the provisions of paragraph (3) of this subsection.

(2) (i) The Department shall adopt regulations establishing criteria for granting an extension under this subsection.

(ii) In adopting regulations under this subsection, the Administration shall consider:

1. The size of the construction project;

2. The likely adverse impact that granting the extension will have on surrounding highways and motorist safety; and

3. The likely adverse impact of the cover requirement on construction costs and timely completion of the project.

(3) An extension granted under this subsection may not exceed the confines of the Department's construction project.

§ 24-106.2.

(a) A vehicle or combination of vehicles used to carry piling, poles, mill logs, unfinished or unfabricated lumber, pipe, steel, or other materials of a similar kind, size, shape, or characteristic may not be driven on any highway unless its load is fastened securely to both the front and rear of the vehicle at both the front and rear of the load, as provided in this section.

(b) The fastening of a load to a vehicle shall be:

(1) By two separate common coil B.B. chains, the links of which may not be less than:

(i) 3/8 of an inch in diameter for loads of 3 tons or less; or

(ii) 1/2 of an inch in diameter for loads over 3 tons;

(2) If they have at least as much tensile strength as the chains, by:

(i) Wire rope not less than 5/16 of an inch in diameter;

(ii) Steel strapping; or

(iii) Logistic webbing of synthetic fibers; or

(3) As specified in Part 393 of the federal Motor Carrier Safety Regulations and adopted jointly by the Administration and the Department of State Police.

MASSACHUSETTS
Applicable Section(s) C.85 Sec. 36 & C. 265 Sec. 35

C. 85 Section 36. Construction and loading of vehicles to prevent dropping of load on way; penalty

"No person shall drive or move a motor vehicle on any way, as defined in section one of chapter ninety, nor shall the owner or bailee of any vehicle require or permit the same to be driven or moved on any such way, unless such vehicle is constructed or loaded so as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, and, if it is loaded with sand, gravel, loam, dirt, stone, rubbish or debris that could fall on other vehicles or on the highway and create litter or potential hazards to other vehicles, unless its load is fully and adequately covered. This section shall not prohibit the dropping of sand for the purpose of securing traction, or the sprinkling of water or other substance on such a way in cleaning or maintaining the same. Whoever violates the provisions of this section shall be punished by a fine of not less than fifty nor more than two hundred dollars."

C. 265, Sec. 35. Throwing or dropping objects onto public way; punishment

Whoever willfully or negligently drops, throws or otherwise releases any object, missile or other article onto any way as defined in section one of chapter ninety, the turnpike as defined in clause (b) of section four of chapter three hundred and fifty-four of the acts of nineteen hundred and fifty-two or the tunnels as defined in clause (d) of section one of chapter five hundred and ninety-eight of the acts of nineteen hundred and fifty-eight so that the lives or safety of the public might be endangered shall be punished by a fine of not more than one hundred dollars, or by imprisonment for not more than one year, or both.

Added by St.1968, c. 139. Amended by St. 1973, c. 432.

MICHIGAN
Applicable Section(s) 257-720

257.720 Construction or loading of vehicles to prevent contents from escaping; exception; closing tailgates, faucets, and taps; exemption; proof of violation; loading of vehicles not completely enclosed; prima facie liability; exceptions; front end loading device; violation; penalty; "logs" defined.

Sec. 720.

(1) A person shall not drive or move a vehicle on a highway unless the vehicle is so constructed or loaded as to prevent its contents from dropping, sifting, leaking, blowing off, or otherwise escaping from the vehicle. This requirement does not apply to a vehicle transporting agricultural or horticultural products when hay, straw, silage, or residue from a product, but not including the product itself, or when materials such as water used to preserve and handle agricultural or horticultural products while in transportation, escape from the vehicle in an amount that does not interfere with other traffic on the highway. The tailgate, faucets, and taps on a vehicle shall be securely closed to prevent spillage during transportation whether the vehicle is loaded or empty, and the vehicle shall not have any holes or cracks through which material can escape. Any highway maintenance vehicle engaged in either ice or snow removal shall be exempt from this section.

(2) Actual spillage of material on the highway or proof of that spillage is not necessary to prove a violation of this section.

(3) Except as provided in this section, a vehicle carrying a load, other than logs or tubular products, which is not completely enclosed shall meet either of the following requirements:

(a) Have the load covered with firmly secured canvas or a similar type of covering. A device used to comply with the requirement of this subdivision shall not exceed a width of 108 inches nor by design or use have the capability to carry cargo by itself.

(b) Have the load securely fastened to the body or the frame of the vehicle with binders of adequate number and of adequate breaking strength to prevent the dropping off or shifting of the load.

(4) A company or individual who loads or unloads a vehicle or causes it to be loaded or unloaded, with knowledge that it is to be driven on a public highway, in a manner so as to cause a violation of subsection (1) shall be prima facie liable for a violation of this section.

(5) Subsection (3) does not apply to a person operating a vehicle to transport agricultural commodities or to a person operating a farm truck or implement of husbandry transporting sand, gravel, and dirt necessary in the normal operation of a farm. However, a person operating a vehicle to transport agricultural commodities or sand, gravel, and dirt in the normal operation of the farm who violates subsection (1) or (4) is guilty of a misdemeanor and is subject to the penalties prescribed in subsection (9).

(6) Subsection (3)(a) does not apply to a motor vehicle transporting items of a load that because of their weight will not fall off the moving vehicle and that have their centers of gravity located at least

6 inches below the top of the enclosure nor to a motor vehicle carrying metal that because of its weight and density is so loaded as to prevent it from dropping or falling off the moving vehicle.

(7) Subsection (3)(a) does not apply to motor vehicles and other equipment engaged in work upon the surface of a highway or street in a designated work area.

(8) A person shall not drive or move on a highway a vehicle equipped with a front end loading device with a tine protruding parallel to the highway beyond the front bumper of the vehicle unless the tine is carrying a load designed to be carried by the front end loading device. This subsection does not apply to a vehicle designed to be used or being used to transport agricultural commodities, to a vehicle en route to a repair facility, or to a vehicle engaged in construction activity. As used in this subsection, "agricultural commodities" means that term as defined in section 722.

(9) A person who violates this section is guilty of a misdemeanor punishable by a fine of not more than \$500.00 or imprisonment for not more than 90 days, or both.

(10) As used in this section, "logs" means sawlogs, pulpwood, or tree length poles.

History: 1949, Act 300, Eff. Sept. 23, 1949 ;-- Am. 1959, Act 215, Imd. Eff. July 30, 1959 ;-- Am. 1976, Act 301, Eff. Mar. 31, 1977 ;-- Am. 1977, Act 111, Imd. Eff. Oct. 6, 1977 ;-- Am. 1987, Act 41, Eff. July 1, 1987 ;-- Am. 1988, Act 354, Eff. Apr. 1, 1989 ;-- Am. 1989, Act 37, Imd. Eff. June 5, 1989 ;-- Am. 1990, Act 67, Imd. Eff. Apr. 27, 1990 ;-- Am. 1994, Act 50, Imd. Eff. Mar. 25, 1994 ;-- Am. 1996, Act 136, Imd. Eff. Mar. 21, 1996 ;-- Am. 2002, Act 535, Imd. Eff. July 26, 2002 ;-- Am. 2003, Act 142, Imd. Eff. Aug. 5, 2003 ;-- Am. 2008, Act 131, Imd. Eff. May 21, 2008

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Date Accessed: Feb. 2015

MINNESOTA
Applicable Section(s) 169.81 Subd. 5

169.81, Subd. 5. Manner of Loading.

No vehicle shall be driven or moved on any highway unless such vehicle is so constructed, loaded, or the load securely covered as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substances may be sprinkled on a roadway in cleaning or maintaining such roadway. This subdivision shall not apply to motor vehicles operated by a farmer or the farmer's agent when transporting produce such as small grains, shelled corn, soybeans, or other farm produce of a size and density not likely to cause injury to persons or damage to property on escaping in small amounts from a vehicle. Violation of this subdivision by a vehicle that is carrying farm produce and that is not exempted by the preceding sentence is a petty misdemeanor.

Subd. 5b. Securing load; exceptions.

(a) The driver of a vehicle transporting sand, gravel, aggregate, dirt, lime rock, silica, or similar material shall ensure that the cargo compartment of the vehicle is securely covered if:

- (1) the vertical distance from the top of an exterior wall of the cargo compartment to the load, when measured downward along the inside surface of the wall, is less than six inches; or
- (2) the horizontal distance from the top of an exterior wall of the cargo compartment to the load is less than two feet.

(b) The driver shall not operate a vehicle to transport sand, gravel, aggregate, dirt, lime rock, silica, or similar material in or on any part of the vehicle other than in the cargo container. The driver shall clean the vehicle of loose sand, gravel, aggregate, dirt, lime rock, silica, or similar material before the vehicle is moved on a road, street, or highway following loading or unloading.

(c) A driver of a vehicle used to transport garbage, rubbish, trash, debris, or similar material is not required to cover the transported material as long as

- (1) the vehicle is being operated at a speed less than 30 miles per hour,
- (2) the vehicle is not being operated on an interstate highway, and
- (3) no part of the load escapes from the vehicle. A driver shall immediately retrieve material that escapes from the vehicle, when safe to do so. A driver shall immediately retrieve material that escapes from the vehicle, when safe to do so.

MISSISSIPPI

Applicable Section(s) 63-5-55, 63-7-83, 63-7-85, 63-7-87 & 63-7-89

63-5-55. Spilling loads on highways prohibited.

No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction or, water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.

63-7-83. Cover required for open top vehicles carrying sand, dirt, gravel or rock.

Every truck, trailer or other carrier with an open top, while traveling upon any state, United States or interstate highway in the State of Mississippi and while carrying any load of sand, dirt, gravel or rock shall be equipped with a tarpaulin, canvas or other such top and same to be secured over the top of any load of sand, dirt, gravel or rock.

63-7-85. Use of sideboards on open top vehicles carrying sand, dirt, gravel or rock.

In lieu of the tarpaulin provided in section 63-7-83, a truck, trailer or other carrier with an open top while traveling upon any state, United States or interstate highway in the State of Mississippi and while carrying any load of sand, dirt, gravel or rock shall be in full compliance with sections 63-7-83 through 63-7-89 provided same is not loaded within six (6) inches of the top of the bed or is equipped with four (4) six-inch (6") sideboards, which sideboards shall be attached one (1) each to the front, back and two (2) sides of the carrier body, and shall remain lowered while the body is being loaded, provided that no part of the load shall extend above the body of the carrier. After loading, the sideboards shall be raised and secured to remain raised during travel, and the space between the top of the sideboards and the top of the load making contact with the sideboards shall not be less than six (6) inches.

Enforcement of Secs. 63-7-83 and 63-7-85.

The State Tax Commission, Mississippi Highway Patrol and other law enforcement agencies are hereby charged with enforcement of Sections 63-7-83 through 63-7-89.

Sources: Laws, 1974, ch. 521, § 3; Laws, 2001, ch. 596, § 64, SB 2699, eff from and after July 1, 2001.

63-7-89. Penalties

Any person, firm or corporation operating a truck, trailer or other carrier on any state, United States or interstate highway not properly covered as set forth in section 63-7-83 or without sideboards as set forth in section 63-7-85 or in violation of any of the other provisions of said section 63-7-85 shall be guilty of a misdemeanor and upon conviction shall be fined not less than twenty-five dollars (\$25) nor more than one hundred dollars (\$100) for each separate and distinct violation.

MISSOURI
Applicable Section(s) 307.010

Section 307.010. Loads which might become dislodged to be secured--failure, penalty.

1. All motor vehicles, and every trailer and semitrailer operating upon the public highways of this state and carrying goods or material or farm products which may reasonably be expected to become dislodged and fall from the vehicle, trailer or semitrailer as a result of wind pressure or air pressure and/or by the movement of the vehicle, trailer or semitrailer shall have a protective cover or be sufficiently secured so that no portion of such goods or material can become dislodged and fall from the vehicle, trailer or semitrailer while being transported or carried.

2. Operation of a motor vehicle, trailer or semitrailer in violation of this section shall be a class C misdemeanor, and any person convicted thereof shall be punished as provided by law.

(L. 1967 p. 417 §§ 1, 2, A.L. 1996 H.B. 1047, A.L. 2009 H.B. 683, A.L. 2010 H.B. 1540)

MONTANA
Applicable Section(s) 61-8-370
Securing Loads

61-8-370 Securing of load – requirement -- exemptions

(1) A person operating a loaded vehicle on a public highway shall load the vehicle or secure the load sufficiently to prevent littering or creating an obstruction dangerous to the public traveling on the highway.

(2) The following vehicles are exempt from the provisions in subsection (1):

- (a) a commercial motor vehicle that is operating in compliance with state and federal laws and requirements governing the securing of loads;
- (b) a vehicle transporting processed or unprocessed agricultural products or inputs, including but not limited to fertilizer, manure, and pesticides;
- (c) a vehicle performing road maintenance; and
- (d) a vehicle in a marked construction zone.

History: En. Sec. 1, Ch. 374, L. 1991; amd. Sec. 1, Ch. 428, L. 2009.

Local ordinances:

Each city or county may impose and enforce regulations concerning the tarping of a load.

NEBRASKA
Applicable Section(s) 60-6.304

60-6,304. Load; contents; requirements; vehicle that contained livestock; spill prohibited; violation; penalty.

(1)(a) Except as provided in subsection (2) of this section for a vehicle that contained livestock, but still contains the manure or urine of such livestock, no vehicle shall be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent its contents from dropping, sifting, leaking, or otherwise escaping from the vehicle.

(b) Except as provided in subsection (2) of this section for a vehicle that contained livestock, but still contains the manure or urine of such livestock, no person shall transport any sand, gravel, rock less than two inches in diameter, or refuse in any vehicle on any hard-surfaced state highway if such material protrudes above the sides of that part of the vehicle in which it is being transported unless such material is enclosed or completely covered with canvas or similar covering.

(c) No person shall drive or move a motor vehicle, trailer, or semitrailer upon any highway unless the cargo or contents carried by the motor vehicle, trailer, or semitrailer are properly distributed and adequately secured to prevent the falling of cargo or contents from the vehicle. The tailgate, doors, tarpaulins, and any other equipment used in the operation of the motor vehicle, trailer, or semitrailer or in the distributing or securing of the cargo or contents carried by the motor vehicle, trailer, or semitrailer shall be secured to prevent cargo or contents falling from the vehicle. The means of securement to the motor vehicle, trailer, or semitrailer must be either tiedowns and tiedown assemblies of adequate strength or sides, sideboards, or stakes and a rear endgate, endboard, or stakes strong enough and high enough to assure that cargo or contents will not fall from the vehicle.

(d) Any person who violates any provision of this subsection is guilty of a Class IV misdemeanor.

(2)(a) No person operating any vehicle that contained livestock, but still contains the manure or urine of livestock, on any highway located within the corporate limits of a city of the metropolitan class, shall spill manure or urine from the vehicle.

(b) Any person who violates this subsection is guilty of a Class IV misdemeanor and shall be assessed a minimum fine of at least two hundred fifty dollars.

Laws 1969, c. 304, § 1, p. 1095; C.S.Supp.,1972, § 39-735.02; Laws 1974, LB 593, § 7; Laws 1977, LB 41, § 21; R.S.1943, (1988), § 39-6,129; Laws 1993, LB 370, § 400; Laws 1993, LB 575, § 28; Laws 2002, LB 1105, § 463; Laws 2007, LB147, § 1; Laws 2014, LB174, § 2. Effective Date: July 18, 2014

NEVADA
Applicable Section(s) 484D.850

NRS 484D.850 Load on vehicle.

1. No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.

2. No person shall operate on any highway any vehicle with any load unless the load and any covering thereon is securely fastened so as to prevent the covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

[20.1:166:1925; added 1955, 186]—(Substituted in revision for NRS 484.771)

NEW HAMPSHIRE
Applicable Section(s) 266:72, 266:72-a

266:72 Spillage of Material. –

I. No vehicle shall be driven or moved on any way unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a way in cleaning or maintaining such way.

II. No person shall operate on any way any vehicle with any load unless said load and any covering thereon is securely fastened so as to prevent said covering or load from becoming loose, detached, or in any manner a hazard to other users of the way. Without limiting the foregoing provision, no person shall drive on any way any open vehicle loaded with earth, sand, asphalt, stone, gravel, or other particulate substance unless said vehicle is equipped with and said load is entirely covered and secured by a tarpaulin or similar covering which prevents the escape of any substance from said load onto the way.

II-a. No person shall operate on any way any open vehicle loaded with light scrap metal, unless the load is covered with and secured by a close-fitting tarpaulin which prevents the escape of any light scrap metal from the load onto the way. For the purposes of this paragraph "light scrap metal" means any fragments less than 8 inches wide and no more than 1/8 inch thick of manufactured metal articles or shredded metal parts rejected or discarded and useful only as material for reprocessing. The provisions of this paragraph shall not apply to truck operators transporting crushed vehicles to shredding facilities or to transporters of heavy scrap metals to or from metal scrap dealers or remelting facilities.

III. Any person who violates the provisions of this section shall be guilty of a violation if a natural person, or guilty of a misdemeanor if any other person. Any person shall be liable to the state or town for any damage done to the way by spillage.

IV. The provisions of paragraphs I, II, II-a, and III of this section shall not apply to a local farmer transporting his or her own farm products or materials incidental to a local farming operation where such transporting requires incidental use of a way, provided that such farmer shall not thereby be relieved of his or her duty to exercise reasonable care to prevent hazardous spillage.

V. The provisions of paragraphs II and II-a shall not apply to:

(a) The operation of construction equipment as defined in RSA 259:42 and motor vehicles used in the construction of highways provided that such equipment or motor vehicle is used within a highway construction zone as prescribed by the commissioner of transportation, provided that the driver of any such vehicle shall not thereby be relieved of the duty to exercise reasonable care;

(b) The operation of municipal and state highway maintenance equipment;

(c) The driving of any vehicle on a way at speeds of less than 30 miles per hour.

Source. RSA 249:51. 1965, 178:1. 1973, 530:32; 573:1, 2. 1981, 146:1. 1994, 373:1-3. 1995, 232:1. 2004, 257:33. 2006, 317:7. 2010, 251:5, eff. Sept. 4, 2010.

266:72-a Motor Carriers; Equipment; Roadside Inspections. –

I. The commissioner may adopt as rules, under RSA 541-A, the current version of the federal motor carrier safety regulations promulgated by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration and Federal Motor Carrier Safety Administration, contained in 49 C.F.R. parts 107, 382, and 385-397. Notwithstanding the provisions of RSA 541-A, any amendments or additions by the respective federal agencies or their successor agencies shall also amend or supplement the rules adopted by the commissioner of safety without further action

on the part of the commissioner. The commissioner shall be authorized to exempt vehicles and drivers operating exclusively in intrastate commerce from such rules which the commissioner determines impose an unnecessary regulatory burden without providing a corresponding safety benefit.

II. Whenever the commissioner finds that a motor carrier safety regulation in 49 C.F.R. sections 390-397, provides an equal or greater degree of safety the commissioner may, pursuant to RSA 260:5, adopt the federal regulation as a rule, and the rule shall take precedence over the conflicting provisions of this title. No person who is in compliance with the corresponding rule adopted by the commissioner shall be convicted of violating a conflicting provision of this title. The commissioner shall request the introduction, at the next annual session of the legislature following adoption of such a rule, of legislation amending or repealing the conflicting provision of this title and, if the legislation is not enacted, any rule so adopted shall be automatically repealed 60 days after the last day of the legislative session.

III. The drivers of all vehicles subject to the motor carrier rules who operate exclusively in intrastate commerce shall be subject to the medical examination, written tests, and road tests required by 49 C.F.R. sections 391.31-391.49, as amended, provided, however, that the commissioner may waive specific requirements or standards of the medical examination for any such driver who has a valid commercial driver's license issued by this state on or after January 1, 1990, if it would not jeopardize public safety to grant such a waiver. The commissioner may adopt rules pursuant to RSA 541-A relative to standards for the granting of such waivers. The department shall make interested parties aware of the provisions of this paragraph. Once a waiver is granted under this paragraph, the waiver shall be placed on the medical examination card required by federal regulation.

III-a. Paragraph III shall not apply to intrastate transportation performed by the state, or any political subdivision of the state. However, nothing in this section shall prevent or inhibit any public employer from establishing internal policies making the motor carrier safety rules applicable to its vehicles and drivers.

IV. Utility service vehicle drivers providing intrastate service shall be exempt from the provisions of 49 C.F.R. 395 as adopted pursuant to this section.

V. (a) A driver of a motor carrier shall stop the vehicle on the request of any enforcement officer of the department of safety or other law enforcement agent certified to conduct truck inspections or by command of roadside signs so that the officer may:

(1) Examine:

- (A) Vehicle components.
- (B) Driver's physical condition.
- (C) Cargo condition.
- (D) Documents.

(2) Enter the cab or cargo area as necessary to determine that:

- (A) The vehicle is in safe operating condition.
- (B) The cargo is properly secured.

(b) Every owner/operator of a motor carrier, or his or her authorized agent, shall submit accounts, books, records, memoranda, correspondence, and other documents for inspection, upon demand by any enforcement officer of the department of safety or other law enforcement agent certified to conduct truck inspections who in the course of enforcing the motor carrier rules is acting within the scope of his or her duties and authority, at the motor carrier's principal place of business during regular business hours.

(c) Any operator who fails to stop or allow inspection as described in subparagraph (a) shall be guilty of a misdemeanor. A second violation of subparagraph (a) shall result in suspension of the person's license or privilege to drive in New Hampshire and notification of such suspension to national motor vehicle license databases.

VI. The driver of any vehicle operating intrastate and registered with New Hampshire farm or agricultural plates and with a gross vehicle weight, gross vehicle weight rating, or gross combination weight rating of 26,000 pounds or less; designed or used to transport fewer than 16 passengers, including the driver; and which does not transport materials required to be placarded pursuant to 49 C.F.R. part 172, subpart F, shall be exempt from the provisions of 49 C.F.R. parts 391, 392, 393, 395, and 396, as adopted as rules pursuant to this section, except that such exemption shall not apply to the requirements of 49 C.F.R. section 392.3, operating while fatigued or ill, 49 C.F.R. section 392.4, use of illegal drugs or substances, 49 C.F.R. section 392.5, driver use of alcohol, 49 C.F.R. part 393, subpart C, brakes, and 49 C.F.R. section 396.7, unsafe operations forbidden.

Source. 1985, 213:24. 1989, 139:1. 1997, 252:2, 3. 2008, 187:1, 2. 2012, 172:2. 2013, 180:9, eff. Jan. 1, 2014; 185:1, eff. July 2, 2013.

NEW JERSEY
Applicable Section(s) 39:4-77

Section 39:4-77. Loading so as to spill prohibited; minimum safety standards; penalty.

No person shall cause or permit a vehicle to be so loaded or operate a vehicle so loaded that the contents or any part thereof may be scattered in any street. Whenever the load of any vehicle is of material other than farm products susceptible to scattering on a street and such load extends above the height of the sides or tailgate or rear of the body of the vehicle, such load shall be securely covered by a tarpaulin or other cover. The director, where public safety so warrants, shall, after a public hearing, prescribe by rule or regulation minimum safety standards for fastening loads on and fix loading procedures for any commercial type flatbed motor vehicle or motor-drawn vehicle. Any rule or regulation so promulgated by the director shall be filed in the Secretary of State's office and copies thereof shall be available, upon request, in the director's office.

The owner, lessee, bailee, or operator of any vehicle described above found on a highway in violation of any such safety standard or procedure that may be prescribed by the director shall be fined not more than \$500 for each violation.

Amended by L.1951, c. 23, p. 80, ' 38; L. 1966, c. 251, ' 1; L.1968, c. 272, ' 1, eff. Sept. 4, 1968.

NEW MEXICO
Applicable Section(s) 66-7-407

Section 66-7-407. Loads on vehicles.

a. No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, loaded secured or covered as to prevent any of its load from dropping, sifting, leaking or otherwise escaping, except that sand may be dropped for the purpose of securing traction or water or other substance may be sprinkled on a roadway in cleaning or maintaining the roadway.

b. No person shall operate on any highway any vehicle or combination of vehicles with any load unless the load and any covering thereon is securely fastened so as to prevent the covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.
(Amendment effective July 1, 1989.)

NEW YORK
Applicable Section(s) 380-a

S 380-a. Certain vehicles engaged in the transportation of loose cargo.

1. It shall be unlawful to operate on any public highway any open truck or trailer being utilized for the transportation of any loose substances, unless said truck or trailer has a cover, tarpaulin or other device of a type and specification approved by the commissioner of transportation which completely closes in the opening on the said truck or trailer while said truck or trailer shall be so operated, so as to prevent the falling of any such substances therefrom. However, if the load is arranged so that no loose substance can fall from or blow out of such truck, the covering is not necessary.
2. The commissioner of transportation is authorized to make necessary rules and regulations to carry into effect the provisions of this section, applying such provisions to specific conditions and loads and prescribing means, methods and practices to effectuate such provisions.
3. The provisions of this section shall not apply to motor vehicles, trailers and semi trailers conveying "farm products" as defined in section two of the agriculture and markets law.

STATUTORY AUTHORITY AND REGULATIONS

Sections 14f, 140(2), 211 and 212(a) of the State Transportation Law and Article 19-B of the State Vehicle and Traffic Law provides the statutory authority for the Commissioner of the Department of Transportation to promulgate regulations that apply to the operation of commercial vehicles on the public highways of the state. In general, these regulations have adopted the Federal Motor Carrier Safety Regulations found in Title 49 of the Code of Federal Regulations (49 CFR), Parts 390, 391, 392, 393, 396, and 397 and the Hazardous Materials Transportation Regulations found in 49 CFR, Parts 100 through 199 as they apply to interstate highway transportation.

There are specific exceptions to some of these regulations for vehicles operated strictly in intrastate commerce. Some of those exceptions are discussed in the following pages. Refer to the Title 17, New York State Code of Rules and Regulations (NYCRR17) Parts 819, 820, 821, 822, 824 and 507 for specific requirements.

SAFETY INSPECTIONS ARE CONDUCTED BY NYSDOT AND THE NEW YORK STATE POLICE AT ROADSIDE SITES

The New York State Department of Transportation (NYSDOT) is the Motor Carrier Safety Assistance Program (MCSAP) lead agency. The New York State Police is the primary participating police agency. A number of local police agencies also participate on a periodic basis.

When a vehicle has been selected for a safety inspection, the driver must help by staying behind the wheel and following the inspector's instructions. Inspectors will follow an inspection procedure established by the Commercial Vehicle Safety Alliance (CVSA) to inspect the driver and vehicle. These procedures are used throughout North America. Please follow the instructions of the inspector so that no unnecessary delays will be experienced. After the inspection, the inspector will explain the defects, if any, and provide the driver with a copy of the safety inspection report.

NORTH CAROLINA
Applicable Section(s) 20-116

§ 20-116. Size of vehicles and loads.

(a) The total outside width of any vehicle or the load thereon shall not exceed 102 inches, except as otherwise provided in this section. When hogsheads of tobacco are being transported, a tolerance of six inches is allowed. When sheet or bale tobacco is being transported the load must not exceed a width of 114 inches at the top of the load and the bottom of the load at the truck bed must not exceed the width of 102 inches inclusive of allowance for load shifting or settling. Vehicles (other than passenger buses) that do not exceed the overall width of 102 inches and otherwise provided in this section may be operated in accordance with G.S. 20-115.1(c), (f), and (g).

(b) No passenger-type vehicle or recreational vehicle shall be operated on any highway with any load carried thereon extending beyond the line of the fenders on the left side of such vehicle nor extending more than six inches beyond the line of the fenders on the right side thereof.

(c) No vehicle, unladen or with load, shall exceed a height of 13 feet, six inches. Provided, however, that neither the State of North Carolina nor any agency or subdivision thereof, nor any person, firm or corporation, shall be required to raise, alter, construct or reconstruct any underpass, wire, pole, trestle, or other structure to permit the passage of any vehicle having a height, unladen or with load, in excess of 12 feet, six inches. Provided further, that the operator or owner of any vehicle having an overall height, whether unladen or with load, in excess of 12 feet, six inches, shall be liable for damage to any structure caused by such vehicle having a height in excess of 12 feet, six inches.

(d) Maximum Length. - The following maximum lengths apply to vehicles. A truck-tractor and semitrailer shall be regarded as two vehicles for the purpose of determining lawful length and license taxes.

- (1) Except as otherwise provided in this subsection, a single vehicle having two or more axles shall not exceed 40 feet in length overall of dimensions inclusive of front and rear bumpers.
- (2) Trucks transporting unprocessed cotton from farm to gin, or unprocessed sage from farm to market shall not exceed 50 feet in length overall of dimensions inclusive of front and rear bumpers.
- (3) Recreational vehicles shall not exceed 45 feet in length overall, excluding bumpers and mirrors.
- (4) Vehicles owned or leased by State, local, or federal government, when used for official law enforcement or emergency management purposes, shall not exceed 45 feet in length overall, excluding bumpers and mirrors.

(e) Except as provided by G.S. 20-115.1, no combination of vehicles coupled together shall consist of more than two units and no such combination of vehicles shall exceed a total length of 60 feet inclusive of front and rear bumpers, subject to the following exceptions: Motor vehicle combinations of one semitrailer of not more than 53 feet in length and a truck tractor (power unit) may exceed the 60-foot maximum length. Said maximum overall length limitation shall not apply to vehicles operated in the daytime when transporting poles, pipe, machinery or other objects of a structural nature which cannot readily be dismembered, nor to such vehicles transporting such objects operated at nighttime by a public utility when required for emergency repair of public service facilities or properties, provided the trailer length does not exceed 53 feet in length, but in respect to such night transportation every such vehicle and the load thereon shall be equipped with a sufficient number of clearance lamps on both sides and marker lamps upon the extreme ends of said projecting load to clearly mark the dimensions of such load: Provided that vehicles designed

and used exclusively for the transportation of motor vehicles shall be permitted an overhang tolerance front or rear not to exceed five feet. Provided, that wreckers may tow a truck, combination tractor and trailer, trailer, or any other disabled vehicle or combination of vehicles to a place for repair, parking, or storage within 50 miles of the point where the vehicle was disabled and may tow a truck, tractor, or other replacement vehicle to the site of the disabled vehicle. Provided further, that the said limitation that no combination of vehicles coupled together shall consist of more than two units shall not apply to trailers not exceeding three in number drawn by a motor vehicle used by municipalities for the removal of domestic and commercial refuse and street rubbish, but such combination of vehicles shall not exceed a total length of 50 feet inclusive of front and rear bumpers. Provided further, that the said limitation that no combination of vehicles coupled together shall consist of more than two units shall not apply to a combination of vehicles coupled together by a saddle mount device used to transport motor vehicles in a driveway service when no more than three saddle mounts are used and provided further, that equipment used in said combination is approved by the safety regulations of the Federal Highway Administration and the safety rules of the Department of Public Safety.

(f) The load upon any vehicle operated alone, or the load upon the front vehicle of a combination of vehicles, shall not extend more than three feet beyond the foremost part of the vehicle. Under this subsection "load" shall include the boom on a self-propelled vehicle.

A utility pole carried by a self-propelled pole carrier may extend beyond the front overhang limit set in this subsection if the pole cannot be dismembered, the pole is less than 80 feet in length and does not extend more than 10 feet beyond the front bumper of the vehicle, and either of the following circumstances apply:

- (1) It is daytime and the front of the extending load of poles is marked by a flag of the type required by G.S. 20-117 for certain rear overhangs.
- (2) It is nighttime, operation of the vehicle is required to make emergency repairs to utility service, and the front of the extending load of poles is marked by a light of the type required by G.S. 20-117 for certain rear overhangs.

As used in this subsection, a "self-propelled pole carrier" is a vehicle designed to carry a pole on the side of the vehicle at a height of at least five feet when measured from the bottom of the brace used to carry the pole. A self-propelled pole carrier may not tow another vehicle when carrying a pole that extends beyond the front overhang limit set in this subsection.

- (g) (1) No vehicle shall be driven or moved on any highway unless the vehicle is constructed and loaded to prevent any of its load from falling, blowing, dropping, sifting, leaking, or otherwise escaping therefrom, and the vehicle shall not contain any holes, cracks, or openings through which any of its load may escape. However, sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled, dumped, or spread on a roadway in cleaning or maintaining the roadway. For purposes of this subsection, the terms "load" and "leaking" do not include water accumulated from precipitation.
- (2) A truck, trailer, or other vehicle licensed for more than 7,500 pounds gross vehicle weight that is loaded with rock, gravel, stone, or any other similar substance, other than sand, that could fall, blow, leak, sift, or drop shall not be driven or moved on any highway unless:
- a. The height of the load against all four walls does not extend above a horizontal line six inches below their tops when loaded at the loading point; and
 - b. The load is securely covered by tarpaulin or some other suitable covering to prevent any of its load from falling, dropping, sifting, leaking, blowing, or otherwise escaping therefrom.
- (3) A truck, trailer, or other vehicle:

- a. Licensed for any gross vehicle weight and loaded with sand; or
- b. Licensed for 7,500 pounds or less gross vehicle weight and loaded with rock, gravel, stone, or any other similar substance that could fall, blow, leak, sift, or drop;

shall not be driven or moved on any highway unless:

- a. The height of the load against all four walls does not extend above a horizontal line six inches below the top when loaded at the loading point;
- b. The load is securely covered by tarpaulin or some other suitable covering; or
- c. The vehicle is constructed to prevent any of its load from falling, dropping, sifting, leaking, blowing, or otherwise escaping therefrom.

- (4) This section shall not be applicable to or in any manner restrict the transportation of seed cotton, poultry or livestock, or silage or other feed grain used in the feeding of poultry or livestock.

(h) Whenever there exist two highways of the State highway system of approximately the same distance between two or more points, the Department of Transportation may, when in the opinion of the Department of Transportation, based upon engineering and traffic investigation, safety will be promoted or the public interest will be served, designate one of the highways the "truck route" between those points, and to prohibit the use of the other highway by heavy trucks or other vehicles of a gross vehicle weight or axle load limit in excess of a designated maximum. In such instances the highways selected for heavy vehicle traffic shall be designated as "truck routes" by signs conspicuously posted, and the highways upon which heavy vehicle traffic is prohibited shall likewise be designated by signs conspicuously posted showing the maximum gross vehicle weight or axle load limits authorized for those highways. The operation of any vehicle whose gross vehicle weight or axle load exceeds the maximum limits shown on signs over the posted highway shall constitute a Class 2 misdemeanor: Provided, that nothing in this subsection shall prohibit a truck or other motor vehicle whose gross vehicle weight or axle load exceeds that prescribed for those highways from using them when its destination is located solely upon that highway, road or street: Provided, further, that nothing in this subsection shall prohibit passenger vehicles or other light vehicles from using any highways designated for heavy truck traffic.

(i) Repealed by Session Laws 1973, c. 1330, s. 39.

(j) Nothing in this section shall be construed to prevent the operation of self-propelled grain combines or other self-propelled farm equipment with or without implements, not exceeding 25 feet in width on any highway, unless the operation violates a provision of this subsection. Farm equipment includes a vehicle that is designed exclusively to transport compressed seed cotton from a farm to a gin and has a self-loading bed. Combines or equipment which exceed 10 feet in width may be operated only if they meet all of the conditions listed in this subsection. A violation of one or more of these conditions does not constitute negligence per se.

- (1) The equipment may only be operated during daylight hours.
- (2) The equipment must display a red flag on front and rear ends or a flashing warning light. The flags or lights shall be attached to the equipment as to be visible from both directions at all times while being operated on the public highway for not less than 300 feet.
- (3) Equipment covered by this section, which by necessity must travel more than 10 miles or where by nature of the terrain or obstacles the flags or lights referred to in subdivision (2) of this subsection are not visible from both directions for 300 feet at any point along the proposed route, must be preceded at a distance of 300 feet and followed at a distance of 300 feet by a flagman in a vehicle having mounted thereon an appropriate warning light or flag. No flagman in a vehicle

shall be required pursuant to this subdivision if the equipment is being moved under its own power or on a trailer from any field to another field, or from the normal place of storage of the vehicle to any field, for no more than ten miles and if visible from both directions for 300 feet at any point along the proposed route.

- (4) Every piece of equipment so operated shall operate to the right of the center line when meeting traffic coming from the opposite direction and at all other times when possible and practical.
- (5) Repealed by Session Laws 2008-221, s. 6, effective September 1, 2008.
- (6) When the equipment is causing a delay in traffic, the operator of the equipment shall move the equipment off the paved portion of the highway at the nearest practical location until the vehicles following the equipment have passed.
- (7) The equipment shall be operated in the designed transport position that minimizes equipment width. No removal of equipment or appurtenances is required under this subdivision.
- (8) Equipment covered by this subsection shall not be operated on a highway or section of highway that is a fully controlled access highway or is a part of the National System of Interstate and Defense Highways without authorization from the North Carolina Department of Transportation. The Department shall develop an authorization process and approve routes under the following conditions:
 - a. Persons shall submit an application to the Department requesting authorization to operate equipment covered by this subsection on a particular route that is part of a highway or section of highway that is a fully controlled access highway or is a part of the National System of Interstate and Defense Highways.
 - b. The Department shall have a period of 30 days from receipt of a complete application to approve or reject the application. A complete application shall be deemed approved if the Department does not take action within 30 days of receipt by the Department; such a route may then be used by the original applicant.
 - c. The Department shall approve an application upon a showing that the route is necessary to accomplish one or more of the following:
 1. Prevent farming operations from traveling more than five miles longer than the requested route during the normal course of business.
 2. Prevent excess traffic delays on local or secondary roads.
 3. Allow farm equipment access due to dimension restrictions on local or secondary roads.
 - d. For applications that do not meet the requirements of sub-subdivision c. of this subdivision, the Department may also approve an application upon review of relevant safety factors.
 - e. The Department may consult with the North Carolina State Highway Patrol, the North Carolina Department of Agriculture and Consumer Services, or other parties concerning an application.
 - f. Any approved route may be subject to any of the following additional conditions:
 1. A requirement that the subject equipment be followed by a flag vehicle with flashing lights that shall be operated at all times on the route so as to be visible from a distance of at least 300 feet.

2. Restrictions on maximum and minimum speeds of the equipment.
 3. Restrictions on the maximum dimensions of the equipment.
 4. Restrictions on the time of day that the equipment may be operated on the approved route.
- g. The Department shall publish all approved routes, including any conditions on the routes' use, and shall notify appropriate State and local law enforcement officers of any approved route.
 - h. Once approved for use and published by the Department, a route may be used by any person who adheres to the route, including any conditions on the route's use imposed by the Department.
 - i. The Department may revise published routes as road conditions on the routes change.

(k) Nothing in this section shall be construed to prevent the operation of passenger buses having an overall width of 102 inches, exclusive of safety equipment, upon the highways of this State which are 20 feet or wider and that are designated as the State primary system, or as municipal streets, when, and not until, the federal law and regulations thereunder permit the operation of passenger buses having a width of 102 inches or wider on the National System of Interstate and Defense Highways.

(l) Nothing in this section shall be construed to prevent the operation of passenger buses that are owned and operated by units of local government, operated as a single vehicle only and having an overall length of 45 feet or less, on public streets or highways. The Department of Transportation may prevent the operation of buses that are authorized under this subsection if the operation of such buses on a street or highway presents a hazard to passengers of the buses or to the motoring public.

(m) Notwithstanding subsection (a) of this section, a boat or boat trailer with an outside width of less than 120 inches may be towed without a permit. The towing of a boat or boat trailer 102 inches to 114 inches in width may take place on any day of the week, including weekends and holidays, and may take place at night. The towing of a boat or boat trailer 114 inches to 120 inches in width may take place on any day of the week, including weekends and holidays from sun up to sun down. A boat or boat trailer in excess of 102 inches but less than 120 inches must be equipped with a minimum of two operable amber lamps on the widest point of the boat and the boat trailer such that the dimensions of the boat and the boat trailer are clearly marked and visible.

(n) Vehicle combinations used in connection with motorsports competition events that include a cab or other motorized vehicle unit with living quarters, and an attached enclosed specialty trailer, the combination of which does not exceed 90 feet in length, may be operated on the highways of this State, provided that such operation takes place for one or more of the following purposes:

- (1) Driving to or from a motorsports competition event.
- (2) For trips conducted for the purpose of purchasing fuel or conducting repairs or other maintenance on the competition vehicle.
- (3) For other activities related to motorsports purposes, including, but not limited to, performance testing of the competition vehicle.

The Department of Transportation may prohibit combinations authorized by this subsection from specific routes, pursuant to G.S. 20-115.1(b). (1937, c. 246; c. 407, s. 80; 1943, c. 213, s. 1; 1945, c. 242, s. 1; 1947, c. 844; 1951, c. 495, s. 1; c. 733; 1953, cc. 682, 1107; 1955, c. 296, s. 2; c. 729; 1957, c. 65, s. 11; cc. 493, 1183, 1190; 1959, c. 559; 1963, c. 356, s. 1; c. 610, ss. 1, 2; c. 702, s. 4; c. 1027, s. 1; 1965, c. 471; 1967, c. 24, s. 4; c. 710; 1969, cc. 128, 880; 1971, cc. 128, 680, 688, 1079; 1973, c. 507, s. 5; c. 546; c. 1330, s. 39; 1975, c. 148, ss. 1-5; c. 716, s. 5; 1977, c. 464, s. 34; 1979, cc. 21, 218; 1981, c. 169, s. 1; 1983, c. 724, s. 2; 1985, c. 587; 1987, c. 272; 1989, c. 277, s. 1; c. 790, s. 2; 1991, c. 112, s. 1; c. 449, ss. 1, 2.1; 1993, c. 539, s. 355; 1994, Ex. Sess., c. 24, s. 14(c); 1995 (Reg.

Sess., 1996), c. 573, s. 1; c. 756, s. 14; 1998-149, s. 7; 1999-438, s. 28; 2000-185, s. 2; 2001-341, ss. 3, 4; 2001-512, s. 2; 2002-72, s. 19(c); 2002-159, s. 31.5(b); 2002-190, s. 2; 2003-383, s. 8; 2005-248, s. 2; 2007-77, s. 1; 2007-194, ss. 2, 3; 2007-484, s. 5; 2007-499, s. 1; 2008-221, ss. 5, 6; 2008-229, s. 1; 2009-7, s. 1; 2009-127, s. 1; 2009-128, s. 1; 2011-145, s. 19.1(g); 2012-33, s. 1; 2012-78, s. 5; 2013-413, s. 59.2(f).)

NORTH DAKOTA
Applicable Section(s) 39-21-44.1

39-21-44.1. Vehicle to be constructed to prevent sifting or leaking loads.

No vehicle *may* be driven or moved on any highway unless it is so constructed or loaded as to prevent its contents from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining the roadway. No person *may* operate on any highway any vehicle with any load unless the load and any covering thereon is securely fastened so as to prevent said covering of load from becoming loose, detached or in any manner a hazard to other users of the highway.

OHIO
Applicable Section(s) 4513.31, 4513.99

§4513.31 All loads to be properly secured.

No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, loaded, or covered as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand or other substances may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining the roadway.

Except for a farm vehicle used to transport agricultural produce or agricultural production materials or a rubbish vehicle in the process of acquiring its load, no vehicle loaded with garbage, swill, cans, bottles, waste paper, ashes, refuse, trash, rubbish, waste, wire, paper, cartons, boxes, glass, solid waste or any other material of an unsanitary nature that is susceptible to blowing or bouncing from a moving vehicle shall be driven or moved on any highway unless the load is covered with a sufficient cover to prevent the load or any part of the load from spilling onto the highway.

Whoever violates this section shall be punished as provided in section 4513.99 of the Revised Code.

§ 4513.99. Penalties.

(A) Any violation of section 4513.03, 4513.04, 4513.05, 4513.06, 4513.07, 4513.071, 4513.09, 4513.10, 4513.11, 4513.111, 4513.12, 4513.13, 4513.14, 4513.15, 4513.16, 4513.17, 4513.171, 4513.18, 4513.182, 4513.19, 4513.20, 4513.201, 4513.202, 4513.21, 4513.22, 4513.23, 4513.24, 4513.242, 4513.25, 4513.26, 4513.27, 4513.28, 4513.29, 4513.30, 4513.31, 4513.32, or 4513.34 of the Revised Code shall be punished under division (B) of this section.

(B) Whoever violates the sections of this chapter that are specifically required to be punished under this division, or any provision of sections 4513.03 to 4513.262 or 4513.27 to 4513.37 of the Revised Code for which violation no penalty is otherwise provided, is guilty of a minor misdemeanor on a first offense; on a second offense within one year after the first offense, the person is guilty of a misdemeanor of the fourth degree; on each subsequent offense within one year after the first offense, the person is guilty of a misdemeanor of the third degree.

OKLAHOMA
Applicable Section(s) 47-14-105

47-14-105

(a) No vehicle shall be driven or moved on any highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking, blowing or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substances may be sprinkled on a roadway in cleaning or maintaining such roadway.

(b) No person shall operate on any highway any vehicle with any load unless said load and any covering thereon is securely fastened so as to prevent said covering or load from becoming loose, detached or in any manner a hazard to other users of the highway. Any vehicle loaded with sand, cinders, or other loose material susceptible to blowing or otherwise escaping shall have such load covered so as to prevent the blowing or escaping of said load from the vehicle.

(c) This section shall not apply to trucks loaded with livestock, poultry or agricultural products only except baled agricultural products, provided that any such truck shall be so constructed or loaded as to prevent such livestock or poultry from escaping therefrom.

OREGON
Applicable Section(s) 818.300 & 818.310

Section 818.300. Operating with sifting or leaking load; civil liability; penalty.

(1) A person commits the offense of operating with a sifting or leaking load if the person does any of the following:

(a) Drives or moves on a highway any vehicle or combination of vehicles that is so constructed or loaded so as to allow its contents to drop, sift, leak or otherwise escape therefrom.

(b) Owns a vehicle or combination of vehicles and causes or permits the vehicle or combination of vehicles to be driven or moved on a highway when the vehicle or combination of vehicles is so constructed or loaded so as to allow its contents to drop, sift, leak or otherwise escape therefrom.

(2) The application of this section is subject to the exemptions from this section established under ORS 818.310 (Exemptions from prohibition on sifting and leaking load).

(3) Violation of the offense described in this section is subject to civil liability under ORS 818.410 (Civil liability for certain violations).

(4) The offense described in this section, operating with a sifting or leaking load, is a Class B traffic violation. [1983 c.338 §524; 1985 c.393 §31]

Section 818.310 Exemptions from prohibition on sifting and leaking load.

This section establishes exemptions from ORS 818.300 (Operating with sifting or leaking load). The exemptions under this section are in addition to any exemptions under ORS 801.026 (General exemptions). Exemptions are partial or complete as described in the following:

(1) ORS 818.300 (Operating with sifting or leaking load) does not apply on any way, thoroughfare or place owned by a district formed under ORS chapters 545, 547, 551 or a corporation formed under ORS chapter 554.

(2) ORS 818.300 (Operating with sifting or leaking load) does not apply on any road or thoroughfare or property in private ownership or any road or thoroughfare, other than a state highway or county road, used pursuant to any agreement with any agency of the United States or with a licensee of such agency or both.

(3) Operations authorized under the terms of a permit issued under ORS 818.230 (Sifting or leaking load permit) are subject to the terms of the permit. It is a defense to any charge of violation of ORS 818.300 (Operating with sifting or leaking load) if the person so charged produces a permit issued under ORS 818.230 (Sifting or leaking load permit) authorizing the operation of the vehicle or combination of vehicles issued prior to and valid at the time of the offense. [1983 c.338 §525; 1985 c.16 §270; 1987 c.158 §173]

PENNSYLVANIA
Applicable Section(s) 4903, 3716

§ 4903. Securing loads in vehicles.

(a) General rule.--No vehicle shall be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping.

(b) Fastening load.--Every load on a vehicle shall be fastened so as to prevent the load or covering from becoming loose, detached or in any manner a hazard to other users of the highway.

(c) Load of logs.--

(1) Every load of logs on a vehicle shall be securely fastened with binders, chains or straps and, in the case of an open-body or stake-body vehicle, trailer or semitrailer there shall be a sufficient number of vertical metal stakes or posts securely attached on each side of the vehicle, trailer or semitrailer at least as high as the top of the load to secure such load in the event of a failure of the binders, chains or straps.

(2) A load of logs which are greater than six feet in length must be secured by three binders for each stack of logs, except that, if the stacks are tiered so that one stack rests upon the bottom stack or stacks, a total of three binders is necessary for that tiered combination.

(3) A load of logs which are six feet or less in length must be secured by two binders for each stack of logs, except that, if the stacks are tiered so that one stack rests upon the bottom stack or stacks, a total of three binders is necessary for that tiered combination.

(4) A tiered combination which includes logs which are greater than six feet and logs which are six feet or less shall be governed by paragraph (2).

(c.1) Load of loose garbage.--Every load of loose, nonbaled garbage, waste, refuse or rubbish being transported through or within this Commonwealth shall be transported in a vehicle with four solid sides and with a cover or top of a type to prevent any of the load from escaping. The cover or top shall remain tightly in place going to a disposal site. The load shall be no higher than the solid sides of the vehicle. It is imperative that all garbage, waste, refuse or rubbish be removed from the vehicle at the disposal site to prevent any scattering of litter on the highway during the return trip. No truck, trailer or semitrailer with an open body or stake body shall be used for such purposes. This subsection shall not apply to vehicles engaged in the systematic collection of garbage or refuse and which are designed to be open in the rear for the loading of garbage or refuse.

(c.2) Load of baled garbage.--Garbage, waste, refuse or rubbish in a tightly compacted and baled form being transported through or within this Commonwealth shall be securely fastened to the vehicle and covered over all exposed areas with a canvas cover or cover of a comparable type which shall be securely attached to the underside of all sides of the truck, trailer or semitrailer to prevent any of the material from the bales from escaping. No part of any bale shall be uncovered, except for inspection, at any time during transportation within or through this Commonwealth until arrival at the disposal site.

(d) Establishment of standards for fastening devices.--The department may promulgate regulations establishing minimum standards governing types and numbers of devices to be used in securing loads to prevent spillage and leakage of a load while in transit.

(e) Exceptions.--This section does not prohibit:

(1) the necessary spreading of any substance in highway maintenance or construction operations; or

(2) the shedding or dropping of feathers or other matter from vehicles hauling live or slaughtered birds or animals.

(f) Penalty for violation of subsection (a), (b) or (c).--A person who owns or who operates a vehicle

in violation of subsection (a), (b) or (c) and, as a result of the violation, any item, piece, fragment or part of the load escapes and causes injury to a person or damage to another vehicle or other property commits a summary offense and shall, upon conviction, be sentenced to pay a fine of not less than \$300 nor more than \$1,000. A violation of subsection (a), (b) or (c) which does not result in injury to a person or damage to another vehicle or other property constitutes a summary offense, punishable by a fine of not less than \$100 nor more than \$300.

(g) Penalty for violation of subsection (c.1) or (c.2).--A person who owns or who operates a vehicle in violation of subsection (c.1) or (c.2) commits a summary offense and shall, upon conviction, be sentenced to pay a fine of not less than \$300 nor more than \$1,000. Notwithstanding the provisions of 42 Pa.C.S. §§ 3571 (relating to Commonwealth portion of fines, etc.) and 3573 (relating to municipal corporation portion of fines, etc.), disposition of any fine collected for a violation of subsection (c.1) or (c.2) shall be as follows:

(1) Unless paragraph (2) applies, the fine collected shall be paid to the Commonwealth for deposit into the Motor License Fund.

(2) If the county where the offense was committed has a litter control program approved by the department, 50% of the fine collected shall be paid to the county for expenditure in the approved litter control program; and 50% of the fine collected shall be paid to the Commonwealth for deposit into the Motor License Fund.

(Mar. 13, 1990, P.L.69, No.14, eff. imd.; July 11, 1996, P.L.660, No.115, eff. 60 days)

2008 Amendment. Act 133 added subsec. (c.3).

1996 Amendment. Act 115 amended subsec. (c).

1990 Amendment. Act 14 added subsecs. (c.1), (c.2), (f) and (g). See section 6 of Act 14 in the appendix to this title for special provisions relating to construction of Act 14.

Cross References. Section 4903 is referred to in section 3716 of this title.

§ 3716. Costs.

In addition to any fines, fees or other penalties levied or imposed under this chapter or any other statute, a cost of \$50 shall be imposed upon conviction for any violation of 18 Pa.C.S. § 5511 (relating to cruelty to animals) other than a summary offense. Costs collected under this section shall be disposed of in accordance with section 3717 (relating to disposition of moneys).

RHODE ISLAND
Applicable Section(s) 31-25-9 & 31-25-10

§ 31-25-9 Prevention of leakage of load.

No vehicles shall be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking, or otherwise escaping from it. However, sand may be dropped for the purpose of securing traction, or water or another substance may be sprinkled on a roadway in cleaning or maintaining the roadway. Violations of this section are subject to fines enumerated in § 31-41.1-4.

History of Section.

(P.L. 1950, ch. 2595, art. 35, § 5; G.L. 1956, § 31-25-9; P.L. 2002, ch. 292, § 122.)

§ 31-25-10 Fastening of load and covering.

(a) No person shall operate on any highway any vehicle with any load unless the load and any covering on it is securely fastened so as to prevent the covering or load from becoming loose, detached, or in any manner a hazard to other users of the highway.

(b) No motor truck trailer or semitrailer which is used for the purpose of hauling logs, pulpwood, lumber, or other materials which by their very nature may shift or roll so as to be likely to fall from the vehicle, shall be operated or moved over any highway unless its load is securely fastened to the vehicle by chains, cables, or other approved devices as will effectively prevent the shifting of the load or any part of it falling from the vehicle. The ends of the chains, cables, or other devices and any tire chains shall be tied securely, whether the vehicle is loaded or unloaded, so that loose ends shall not endanger pedestrians or other vehicles encountered on the highway.

(c) This section shall not be construed to include a truck transporting lumber, wood, or sawmill wastes, when transported in a box type body with solid sides, provided that the truck is not loaded higher than its side-boards.

(d) A person who violates the provisions of this section shall be fined:

(1) Not more than one hundred dollars (\$100) for the first violation; and

(2) Not less than one hundred dollars (\$100) nor more than five hundred dollars (\$500) for any subsequent violations.

(e) No person shall operate a motor truck or other vehicle carrying or transporting any rubbish, refuse, or other debris on any highway without first securely fastening a covering on it to prevent the contents from falling to the highway. No person shall operate on any highway any vehicle with any load unless the load and any covering on it is securely fastened so as to prevent that covering or load from becoming loose, detached, or in any manner a hazard to other users of the highway.

(f) No person shall operate an open motor truck or other similar vehicle while carrying or transporting any child under sixteen (16) years of age without securely fastening the child to prevent them from becoming loose or detached in any manner.

History of Section.(P.L. 1950, ch. 2595, art. 35, § 5; G.L. 1956, § 31-25-10; P.L. 1966, ch. 270, § 1; P.L. 1973, ch. 119, § 1; P.L. 1974, ch. 31, § 1; P.L. 1975, ch. 17, § 1; P.L. 1986, ch. 271, § 1; P.L. 1988, ch. 410, § 1.)

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SOUTH CAROLINA
Applicable Section(s) 56-5-4100

SECTION 56-5-4100. Preventing escape of materials loaded on vehicles; cleaning the highways of escaped substances or cargo.

(A) No vehicle may be driven or moved on any public highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking, or otherwise escaping from the vehicle, except that sand, salt, or other chemicals may be dropped for the purpose of securing traction, and water or other substance may be sprinkled on a roadway in the cleaning or maintaining of the roadway by the public authority having jurisdiction.

(B) Trucks, trailers, or other vehicles when loaded with rock, gravel, stone, or other similar substances which could blow, leak, sift, or drop must not be driven or moved on any highway unless the height of the load against all four walls does not extend above a horizontal line six inches below their tops when loaded at the loading point; or, if the load is not level, unless the height of the sides of the load against all four walls does not extend above a horizontal line six inches below their tops, and the highest point of the load does not extend above their tops, when loaded at the loading point; or, if not so loaded, unless the load is securely covered by tarpaulin or some other suitable covering; or unless it is otherwise constructed so as to prevent any of its load from dropping, sifting, leaking, blowing, or otherwise escaping from the vehicle. This subsection also includes the transportation of garbage or waste materials to locations for refuse in this State.

(C) The loader of the vehicle and the driver of the vehicle, in addition to complying with the other provisions of this section, shall sweep or otherwise remove any loose gravel or similar material from the running boards, fenders, bumpers, or other similar exterior portions of the vehicle before it is moved on a public highway.

(D) Any person operating a vehicle from which any substances or cargo, excluding water, have fallen or escaped, which would constitute an obstruction or injure a vehicle or otherwise endanger travel upon the public highway, shall make every reasonable effort to immediately cause the public highway to be cleaned of all substances and shall pay any costs for the cleaning.

If the person does not make every reasonable effort to clean the public highway promptly, the Department of Transportation or any law enforcement officer may, without the consent of the owner or carrier of the substance or cargo, remove or have removed the substance from the public highway if the substance or cargo is blocking the public highway or endangering public safety. The State, its political subdivisions, and their officers and employees are not liable for any damages to the substance or cargo that may result from the removal or the disposal of the substance or cargo unless the removal or disposal was carried out recklessly or in a grossly negligent manner. The State, its political subdivisions, and their officers and employees are not liable for any damages or claims of damages that may result from the failure to exercise any authority granted under this section. The owner, driver of the vehicle, or motor carrier of the substance or cargo removed under this subsection shall bear all reasonable costs of its removal and subsequent storage or disposition.

Nothing in this section bars a claim for damages.

(E) Any person who violates the provisions of subsections (B), (C), or (D), is guilty of a misdemeanor and, upon conviction, must be fined one hundred dollars.

(F) The provisions contained in subsections (A), (B), and (C) are not applicable to and do not restrict the transportation of seed cotton, soybeans, tobacco, poultry, livestock or silage, or other feed grain used in the feeding of poultry or livestock or of paper, wastepaper utilized for the manufacture of industrial products, paper products, forest products, or textile products.

HISTORY: 1962 Code Section 46-660; 1952 Code Section 46-660; 1949 (46) 466; 1978 Act No. 496 Section 18; 1988 Act No. 532, Section 10; 2004 Act No. 286, Section 3.

SECTION 56-5-4110. Loads and covers thereon shall be firmly attached.

No person shall operate on any highway any vehicle with any load unless such load and any covering thereon is securely fastened so as to prevent such covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

SOUTH DAKOTA
Applicable Section(s) SDCL 32-15-18

32-15-18. Improperly loaded vehicle unlawful--Violation as misdemeanor. No person may drive or move any vehicle on any highway unless such vehicle is so constructed or loaded as to prevent its contents from dropping, sifting, leaking, or otherwise escaping therefrom. A violation of this section is a Class 2 misdemeanor.

Source: SDC 1939, § 44.0350; SL 1989, ch 255, § 34.

TENNESSEE
Applicable Section(s)
39-14-501, 39-14-502 & 39-14-503

Section 39-14-501. As used in this part, unless the context otherwise requires:

- (1) "Commercial Purpose" means litter discarded by a business, corporation, association, partnership, sole proprietorship, or any other entity conducting business for economic gain, or by an employee or agent of the entity;
- (2) "Garbage" includes putrescible animal and vegetable waste resulting from the handling, preparation, cooking and consumption of food;
- (3) "Litter" includes garbage, refuse, rubbish and all other waste material, including a tobacco product as defined in § 39-17- 1503(9) and any other item primarily designed to hold or filter a tobacco product while the tobacco is being smoked;
- (4) "Refuse" includes all putrescible and nonputrescible solid waste; and
- (5) "Rubbish" includes nonputrescible solid waste consisting of both combustible and non-combustible waste.

Section 39-14-502. (a) A person commits littering who:

- (1) Knowingly places, drops or throws litter on any public or private property without permission and does not immediately remove it;
- (2) Negligently places or throws glass or other dangerous substances on or adjacent to water to which the public has access for swimming or wading, or on or within fifty feet (50') of a public highway; or
- (3) Negligently discharges sewage, minerals, oil products or litter into any public waters or lakes within this state.

(b) Whenever litter is placed, dropped, or thrown from any motor vehicle, boat, airplane, or other conveyance in violation of this section, the trier of fact may, in its discretion and in consideration of the totality of the circumstances, infer that the operator of the conveyance has committed littering.

(c) Whenever litter discovered on public or private property is found to contain any article or articles, including, but not limited to, letters, bills, publications, or other writings that display the name of a person thereon in such a manner as to indicate that the article belongs or belonged to such person, the trier of fact may, in its discretion and in consideration of the totality of the circumstances, infer that such person has committed littering.

Section 39-14-503.

(a) Mitigated criminal littering is littering in an amount less than or equal to five pounds (5 lbs.) in weight or seven and one-half (7.5) cubic feet in volume.

(b) Mitigated criminal littering is a Class C misdemeanor punishable by a fine of fifty dollars (\$50.00) and as provided in subsections (c) and (d).

(c) A person charged with a violation of this section may, in lieu of appearance in court, submit the applicable fifty dollar (\$50.00) fine to the clerk of the court that has jurisdiction of such offense within the county in which the offense charged is alleged to have been committed. A person paying in this manner is not subject to the provisions of subsection (d), and, in the discretion of the judge, may be excused from paying court costs for the offense.

(d) In addition to the penalties established in this section, the court shall require a person convicted under this part to remove litter from the state or local highway system, public playgrounds, public parks or other appropriate public locations for not more than forty (40) hours. The court, in its discretion, may also require a person convicted under this section to work in a recycling center or other appropriate location for any stated period of time not to exceed eight (8) hours.

TEXAS
Applicable Section(s) 725.001-725.003 & 725.021-725.22

Sec. 725.001. DEFINITIONS. In this chapter:

- (1) "Load" means a load of loose material.
 - (2) "Loose material" means material that can be blown or spilled from a vehicle because of movement or exposure to air, wind currents, or other weather. The term includes dirt, sand, gravel, and wood chips but excludes an agricultural product in its natural state.
 - (3) "Motor vehicle" has the meaning assigned by Section 621.001.
 - (4) "Public highway" includes a public road or street.
 - (5) "Semitrailer" has the meaning assigned by Section 621.001.
 - (6) "Trailer" has the meaning assigned by Section 621.001.
 - (7) "Vehicle" has the meaning assigned by Section 621.001.
- Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

Sec. 725.002. APPLICABILITY. This chapter applies to any motor vehicle, trailer, or semitrailer operated on a public highway except:

- (1) a vehicle or construction or mining equipment that is:
 - (A) moving between construction barricades on a public works project; or
 - (B) crossing a public highway; or
 - (2) a vehicle that is operated at a speed less than 30 miles per hour.
- Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

Sec. 725.003. OFFENSE; PENALTY.

- (a) A person or the person's agent or employee may not load or transport loose material in violation of this chapter.
 - (b) A person, excluding this state or a political subdivision of this state but including an agent or employee of this state or a political subdivision of this state, commits an offense if the person violates Subsection (a).
 - (c) An offense under this section is a misdemeanor punishable by a fine of:
 - (1) not less than \$25 or more than \$200 for a first conviction; and
 - (2) not less than \$200 or more than \$500 for a second or subsequent conviction.
- Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

SUBCHAPTER B. REQUIREMENTS FOR TRANSPORTING LOOSE MATERIALS

Sec. 725.021. CONTAINING LOOSE MATERIALS.

- (a) A vehicle subject to this chapter shall be equipped and maintained as required by this section to prevent loose material from escaping by blowing or spilling.
- (b) A vehicle bed carrying a load:
 - (1) may not have a hole, crack, or other opening through which loose material can escape;and
 - (2) shall be enclosed:
 - (A) on both sides by side panels;
 - (B) on the front by a panel or the vehicle cab; and
 - (C) on the rear by a tailgate or panel.
- (c) The load shall be covered and the covering firmly secured at the front and back, unless the load:
 - (1) is completely enclosed by the load-carrying compartment; or
 - (2) does not blow or spill over the top of the load-carrying compartment.

(d) The tailgate of the vehicle shall be securely closed to prevent spillage during transportation.
Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

Sec. 725.022. MAINTAINING NON-LOAD-CARRYING VEHICLE PARTS.

(a) Loose material that is spilled because of loading on a vehicle part that does not carry the load shall be removed before the vehicle is operated on a public highway.

(b) After the vehicle is unloaded and before the vehicle is operated on a public highway, residue of transported loose material on a vehicle part that does not carry the load shall be removed from the vehicle part.

Acts 1995, 74th Leg., ch. 165, Sec. 1, eff. Sept. 1, 1995.

UTAH
Applicable Section(s) 72-7-409

72-7-409. Loads on vehicles -- Limitations -- Confining, securing, and fastening load required -- Penalty.

- (1) As used in this section:
 - (a) "Agricultural product" means any raw product which is derived from agriculture, including silage, hay, straw, grain, manure, and other similar product.
 - (b) "Vehicle" has the same meaning set forth in Section 41-1a-102.
- (2) A vehicle may not be operated or moved on any highway unless the vehicle is constructed or loaded to prevent its contents from dropping, sifting, leaking, or otherwise escaping.
- (3)
 - (a) In addition to the requirements under Subsection (2), a vehicle carrying dirt, sand, gravel, rock fragments, pebbles, crushed base, aggregate, any other similar material, or scrap metal shall have a covering over the entire load unless:
 - (i) the highest point of the load does not extend above the top of any exterior wall or sideboard of the cargo compartment of the vehicle; and
 - (ii) the outer edges of the load are at least six inches below the top inside edges of the exterior walls or sideboards of the cargo compartment of the vehicle.
 - (b) In addition to the requirements under Subsection (2), a vehicle carrying trash or garbage shall have a covering over the entire load.
 - (c) The following material is exempt from the provisions of Subsection (3)(a):
 - (i) hot mix asphalt;
 - (ii) construction debris or scrap metal if the debris or scrap metal is a size and in a form not susceptible to being blown out of the vehicle;
 - (iii) material being transported across a highway between two parcels of property that would be contiguous but for the highway that is being crossed; and
 - (iv) material listed under Subsection (3)(a) that is enclosed on all sides by containers, bags, or packaging.
 - (d) A chemical substance capable of coating or bonding a load so that the load is confined on a vehicle, may be considered a covering for purposes of Subsection (3)(a) so long as the chemical substance remains effective at confining the load.
- (4) Subsections (2) and (3) do not apply to a vehicle or implement of husbandry carrying an agricultural product, if the agricultural product is:
 - (a) being transported in a manner which is not a hazard or a potential hazard to the safe operation of the vehicle or to other highway users; and
 - (b) loaded in a manner that only allows minimal spillage.
- (5)
 - (a) An authorized vehicle performing snow removal services on a highway is exempt from the requirements of this section.
 - (b) This section does not prohibit the necessary spreading of any substance connected with highway maintenance, construction, securing traction, or snow removal.
- (6) A person may not operate a vehicle with a load on any highway unless the load and any load covering is fastened, secured, and confined to prevent the covering or load from becoming loose, detached, or in any manner a hazard to the safe operation of the vehicle, or to other highway users.
- (7) Before entering a highway, the operator of a vehicle carrying any material listed under Subsection (3), shall remove all loose material on any portion of the vehicle not designed to carry the material.
- (8)

- (a) Any person who violates this section is guilty of a class B misdemeanor.
- (b) A person who violates a provision of this section shall be fined not less than:
 - (i) \$200 for a violation; or
 - (ii) \$500 for a second or subsequent violation within three years of a previous violation of this section.
- (c) A person who violates a provision of this section while operating a commercial vehicle as defined in Section 72-9-102 shall be fined:
 - (i) not less than \$500 for a violation; or
 - (ii) \$1,000 for a second or subsequent violation within three years of a previous violation of this section.

Amended by Chapter 365, 2013 General Session

VERMONT
Applicable Section(s) T. 23, Sec. 1454

§ 1454. Securing loads

(a) A person shall not operate a motor vehicle nor draw a trailer, or semi-trailer on a highway unless the motor vehicle, trailer or semi-trailer is so constructed and loaded that it will create no hazard to other users of the highway.

(b) The commissioner may, by rule, impose design and load security requirements, consistent with nationally recognized safety standards, upon motor vehicles, trailers, and semi-trailers in order to provide for the safe and secure transport of any loads. (1961, No. 62, §§ 1, 2; amended 1971, No. 228 (Adj. Sess.), § 32; 1997, No. 46, § 7.)

Version: 2013-07-01 - 2099-12-31

VIRGINIA
Applicable Section(s) 46.2-1156

§ 46.2-1156. Construction, maintenance and loading must prevent escape of contents; load covers; exemptions.

A. No vehicle shall be operated or moved on any highway unless it is so constructed, maintained, and loaded as to prevent its contents from dropping, sifting, leaking, or otherwise escaping. No provision of this section, however, shall apply to any (i) motor vehicle that is used exclusively for agricultural purposes as provided in § 46.2-698 and is not licensed in any other state; (ii) agricultural vehicle, tractor, or other vehicle exempted from registration and licensing requirements pursuant to Article 6 (§ 46.2-662 et seq.) of Chapter 6 of this title; or (iii) motor vehicle transporting forest products, poultry, or livestock.

B. The loads of all trucks, trailers and semitrailers carrying gravel, sand, coal or other nonagricultural and nonforestry products on interstate, primary, or secondary highways or roads maintained by cities, counties or incorporated towns shall be either (i) secured to the vehicle in which they are being transported or (ii) covered. Covers used to prevent the escape of material from commercial vehicles used to transport solid waste shall be of such design, installation, and construction as to contain the vehicle's cargo within the vehicle, regardless of the vehicle's speed or weather conditions. Public service company vehicles, pickup trucks, and emergency snow removal equipment while engaged in snow removal operations shall be excluded from the provisions of this subsection.

(Code 1950, § 46-307; 1958, c. 541, §§ 46.1-303, 46.1-401; 1975, c. 553; 1979, c. 213; 1980, c. 21; 1986, c. 639; 1988, cc. 662, 897; 1989, cc. 526, 727; 1992, c. 149; 1997, c. 283; 2001, c. 180.)

WASHINGTON
Applicable Section(s) 46.61.665

RCW 46.61.655 Dropping load, other materials — Covering.

(1) No vehicle shall be driven or moved on any public highway unless such vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking, or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction.

(2) No person may operate on any public highway any vehicle with any load unless the load and such covering as required thereon by subsection (3) of this section is securely fastened to prevent the covering or load from becoming loose, detached, or in any manner a hazard to other users of the highway.

(3) Any vehicle operating on a paved public highway with a load of dirt, sand, or gravel susceptible to being dropped, spilled, leaked, or otherwise escaping therefrom shall be covered so as to prevent spillage. Covering of such loads is not required if six inches of freeboard is maintained within the bed.

(4)(a) Any person operating a vehicle from which any glass or objects have fallen or escaped, which would constitute an obstruction or injure a vehicle or otherwise endanger travel upon such public highway shall immediately cause the public highway to be cleaned of all such glass or objects and shall pay any costs therefor.

(b) Any vehicle with deposits of mud, rocks, or other debris on the vehicle's body, fenders, frame, undercarriage, wheels, or tires shall be cleaned of such material before the operation of the vehicle on a paved public highway.

(5) The state patrol may make necessary rules to carry into effect the provisions of this section, applying such provisions to specific conditions and loads and prescribing means, methods, and practices to effectuate such provisions.

(6) Nothing in this section may be construed to prohibit a public maintenance vehicle from dropping sand on a highway to enhance traction, or sprinkling water or other substances to clean or maintain a highway.

(7)(a)(i) A person is guilty of failure to secure a load in the first degree if he or she, with criminal negligence, fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1), (2), or (3) of this section and causes substantial bodily harm to another.

(ii) Failure to secure a load in the first degree is a gross misdemeanor.

(b)(i) A person is guilty of failure to secure a load in the second degree if he or she, with criminal negligence, fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1) or (2) of this section and causes damage to property of another.

(ii) Failure to secure a load in the second degree is a misdemeanor.

(c) A person who fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1), (2), or (3) of this section is guilty of an infraction if such failure does not amount to a violation of (a) or (b) of this subsection.

[2005 c 431 § 1; 1990 c 250 § 56; 1986 c 89 § 1; 1971 ex.s. c 307 § 22; 1965 ex.s. c 52 § 1; 1961 c 12 § 46.56.135. Prior: 1947 c 200 § 3, part; 1937 c 189 § 44, part; Rem. Supp. 1947 § 6360-44, part. Formerly RCW 46.56.135.]

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Date Accessed: Feb. 2015

WEST VIRGINIA
Applicable Section(s) 17C-17-6

§17C-17-6. Loads to be securely fastened and not allowed to leak, escape, etc.

a. No vehicle or combination of vehicles shall be operated on any highway unless such vehicle or combination of vehicles is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom, except that sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in cleaning or maintaining such roadway.

b. It shall be unlawful to operate on any highway any vehicle or combination of vehicles with any load unless said load and any covering thereon is securely fastened so as to prevent said covering or load from becoming loose, detached or in any manner a hazard to other users of the highway.

§17C-17A-5(i)

(i) Any vehicle or combination of vehicles transporting coal pursuant to the provisions of this article shall be securely covered to prevent the escape of the load on any trip exceeding a total distance of one mile on any public highway.

Note: WV Code updated with legislation passed through the 2014 1st Special Session

WISCONSIN
Applicable Section(s) 348.10, Section 2 & 346.94, Section 7

348.10 Special limitations on load.

(1) No person, without a permit therefor, may operate on a highway any vehicle or combination of vehicles with any load thereon extending more than 3 feet beyond the front of the foremost vehicle, except as provided in s. 348.07 (2) (j) and (k), and except that a vehicle carrying another vehicle equipped with a crane or boom which extends more than 3 feet beyond the front of the foremost vehicle may be operated without permit if the total length of the vehicle or combination of vehicles, measuring from the end of the foremost projection of the load to the rear of the rearmost vehicle, does not exceed statutory length limitations.

(2) No person shall operate a vehicle on a highway unless such vehicle is so constructed and loaded as to prevent its contents from dropping, sifting, leaking or otherwise escaping therefrom.

(3) No person may operate on a highway any motor vehicle, trailer or semitrailer carrying logs unless the logs are transported within a cargo body or are securely fastened to the vehicle by chains, steel cables or other attachment devices of equivalent strength whose safety is approved by the department.

(3m) No person may operate on a highway any motor vehicle, trailer or semitrailer carrying junk or scrapped vehicles unless one of the following conditions is satisfied:

(a) Each junk or scrapped vehicle is securely fastened to the vehicle carrying the load by chains, steel cables or other attachment devices of equivalent strength whose safety is approved by the department. In this paragraph, "securely fastened" means that each tier of junk or scrapped vehicles is secured by at least 2 chains, steel cables or other attachment devices across the axis of its width.

(b) The vehicle carrying the load is equipped with stakes which are securely fastened by chains, steel cables or other attachment devices of equivalent strength whose safety is approved by the department and the top of the load is lower than the top of the stakes.

(c) The vehicle carrying the load is equipped with sides, sideboards or side stakes and with a rear endgate, endboard or rear stakes. These devices shall be of sufficient strength and height to prevent the cargo from shifting upon or falling from the vehicle. No device may have any aperture large enough to permit cargo in contact with one or more of the devices to pass through the aperture.

(4) All other provisions notwithstanding, no person shall operate on a highway any trailer or semitrailer when the gross weight of the trailer or semitrailer exceeds the empty weight of the towing vehicle, unless the trailer or semitrailer is equipped with brakes as provided in s. 347.35 (3) (a) and (b).

(5) The load imposed upon trailers, semitrailers, recreational vehicles, or mobile homes shall be distributed in a manner that will prevent side sway under all conditions of operation:

(a) All items of load carried by any trailer, semitrailer, recreational vehicle, or mobile home, except bulk material such as sand, gravel, dirt not in containers, shall be secured to, on or in the trailer, semitrailer, recreational vehicle, or mobile home in such manner as to prevent shifting of the load while the trailer, semitrailer, recreational vehicle, or mobile home is being drawn by a towing vehicle.

(b) Boats of any type transported on a trailer or semitrailer being drawn by a towing vehicle shall be secured in position at bow and stern by attachments of such strength and design as to prevent the boat from shifting its position on the trailer or becoming separated from the trailer while being transported thereon.

(c) The load carried by any trailer, semitrailer, recreational vehicle, or mobile home shall be so positioned that a weight of not less than 35 pounds is imposed at the center of the point of attachment to the towing vehicle when parked on a level surface.

History: 1983 a. 78; 1983 a. 192 s. 304; 1985 a. 161; 1991 a. 249; 1993 a. 401; 2007 a. 11; 2013 a. 369.

346.94, Section 7.

(7) Spilling loads of waste or foreign matter. The operator of every vehicle transporting waste or foreign matter on the highways of this state shall provide adequate facilities to prevent such waste or foreign matter from spilling on or along the highways.

WYOMING
Applicable Section(s) 31-5-228

31-5-228. Loads on Vehicles.

No vehicle shall be driven or moved on any highway unless the vehicle is so constructed or loaded as to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom. This section does not prohibit the necessary spreading of any substance in highway maintenance or construction operations.

PUERTO RICO
Applicable Section(s) 15.02 (a) (10)

When a truck's cargo consists of sand, cement trash or any other product similar to this, a cover or tarp is mandatory. It must cover the complete cargo area so that it does not spill through the air in prejudice to public and health safety.

Penalties arising from violations to Section 15.02 (a)(10) are specified in Section 15.05, which states a \$250.00 fine. This amendment is pursuant to Law 132 of June 3, 2004.

ALBERTA
Applicable Section(s) 17

Cargo securement requirements

17(1) In this section,

(a) “commercial vehicle” means a commercial vehicle or a combination of commercial vehicles that is registered for a gross weight of more than, or that weighs more than, 4500 kilograms and that is not a bus;

(b) “NSC Standard 10” means NSC Standard 10 adopted under section 2.

(2) The vehicles referred to in NSC Standard 10 are deemed to be commercial vehicles as defined in subsection (1)(a).

(3) A carrier or an owner of a commercial vehicle shall not permit a driver to operate, and a driver shall not operate, a commercial vehicle where the cargo transported in or on the commercial vehicle is not contained, immobilized or secured in accordance with NSC Standard 10 as it relates to the particular type of commercial vehicle.

(4) A driver, a carrier or an owner of a commercial vehicle shall ensure that cargo transported by a commercial vehicle is contained, immobilized or secured so that it cannot

(a) leak, spill, blow off, fall from, fall through or otherwise be dislodged from the commercial vehicle, or

(b) shift upon or within the commercial vehicle to such an extent that the commercial vehicle’s stability or manoeuvrability is adversely affected.

(5) The provisions of sections 10 and 22 of NSC Standard 10 do not apply to a commercial vehicle that is registered as a Class 2 commercial vehicle under section 77(1)(b) and (2)(g) of the Operator Licensing and Vehicle Control Regulation (AR 320/2002), or a commercial vehicle that is operated under contract with a farmer for the purpose of hauling hay, used either singly or in combination with one or more trailers, when it is transporting stacks or round or rectangular bales of hay or straw within a 50-kilometre radius of the load’s place of origin if

(a) the vehicle while transporting the load does not exceed

(i) the posted speed limit, where the posted speed limit is lower than 80 kilometres per hour, or

(ii) 80 kilometres per hour, where the posted speed limit is 80 kilometres per hour or higher,

and

(b) the vehicle is not operated on any highway or portion of a highway listed in Schedule 7 except to cross the highway.

BRITISH COLUMBIA
Applicable Section(s) 35

Division 35 — Cargo Securement

Application

35.01 (1) This Division does not apply to

- (a) a commercial vehicle engaged in highway construction, other than a paving project operating within the limits of a highway construction project, as established or as posted by the Ministry of Transportation and Infrastructure, or
- (b) an implement of husbandry as defined in the Act.

(2) Nothing in this Division prohibits the dropping from a vehicle of

- (a) sand to secure traction, or
- (b) water or another substance to clean or maintain a roadway.

[en. B.C. Reg. 113/2005, Sch. 1.]

Standard adopted

35.02 (1) In this Division, "Standard" means National Safety Code Standard 10, "Cargo Securement", recommended by the Canadian Council of Motor Transport Administrators on September 8, 2004 and approved by the Council of Ministers on September 23, 2004, as amended from time to time.

(2) For the purpose of promoting and securing road safety, but subject to the Act and this regulation, the Standard is

- (a) adopted under section 212 (4) (a) of the Act, and
- (b) deemed to be a regulation made under section 212 (3) of the Act.

(3) Despite section 2 (1) of the Standard, the Standard only applies to a vehicle

- (a) transporting cargo on a highway, and
- (b) exceeding a licensed gross vehicle weight of 5 000 kg.

[en. B.C. Reg. 113/2005, Sch. 1; am. B.C. Reg. 160/2011.]

Prohibitions respecting equipment and cargo

35.03 (1) In this section:

"business vehicle" has the same meaning as in section 237 of the Act;

"carrier" has the same meaning, in relation to both business vehicles and commercial vehicles, as in section 237 of the Act.

(2) A carrier must not permit a person to drive or operate on a highway a commercial vehicle or business vehicle carrying cargo if the manner in which the vehicle is equipped or its cargo secured contravenes any of sections 35.04 to 35.07.

(3) A person must not drive or operate on a highway a commercial vehicle or business vehicle carrying cargo if the manner in which the vehicle is equipped or its cargo secured contravenes any of sections 35.04 to 35.07.

(4) A person must not drive or operate on a highway a vehicle, other than a commercial vehicle or business vehicle, carrying cargo if the manner in which the vehicle is equipped or its cargo secured contravenes any of sections 35.04 to 35.07.

[en. B.C. Reg. 113/2005, Sch. 1.]

Cargo securement

35.04 Vehicles must be equipped and cargo must be contained, immobilized or secured in accordance with the applicable requirements of this Division and the Standard and so that it cannot

- (a) leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle, or
- (b) shift on or within the vehicle in a manner that affects the stability or manoeuvrability of the vehicle.

[en. B.C. Reg. 113/2005, Sch. 1.]

Transporting logs or poles

35.05 (1) In this section:

"spring lash" means the amount of free play in leaf type suspensions caused by the vertical gap between the main spring leaf and the rebound constraints or slippers;

"bunk lash" means the amount of free play caused by the vertical gap between the slipper supports and the bunk rub shoes, measured when the log bunk is perpendicular to the longitudinal axis of the pole trailer and the trailer is fully loaded.

(2) A person must not drive or operate on a highway a logging truck, a truck or a truck tractor and trailer combination with a flat load deck while the vehicle is transporting a load of logs or poles or both that are longer than 2.6 m placed in the longitudinal axis with the vehicle or vehicle combination unless the vehicle is

(a) equipped with the same bunk and stake assembly, unmodified, that it was equipped with at the time it was sold as a new vehicle and bears the National Safety Mark under the Motor Vehicle Safety Act (Canada) and the regulations made under it, or

(b) not equipped and marked as described in paragraph (a) but is equipped with bunks and stake assemblies that meet the requirements of subsection (3) and are of adequate design and construction to contain the load.

(3) For the purpose of subsection (2) (b),

(a) stake extensions must be securely attached to the stakes,

(b) stakes, together with their stake extensions, must form an angle of 90° or less with the bunk cross member,

(c) stakes must be secured to the bunk cross member or to the trailer's side flanges or rub rails

(i) by a method approved by a professional engineer,

(ii) by a pin and closed loop stake lines consisting of wire rope at least 22 mm in diameter, or

(iii) with properly welded gussets of adequate strength,

(d) bunk lash must not exceed 5 mm when the pole trailer is fully loaded, and

(e) log bunks carrying logs or poles must be securely attached to the structurally adequate integral part of the frame of the truck or trailer by nuts and bolts, retaining pins, chains or by welding.

(4) If the logging truck includes a tridem pole trailer,

(a) the trailer bunk centreline must be located at a point forward of the longitudinal centre of the tridem axle group, and

(b) the trailer, if equipped with spring suspension, must not have any spring lash in excess of 5 mm when in a loaded state.

(5) Pole trailers manufactured after January 1, 1993 and equipped with adjustable reaches must have welds, bolts, stops or some other positive means other than a friction clamp to prevent separation between any reach sections.

[en. B.C. Reg. 113/2005, Sch. 1; am. B.C. Reg. 103/2006, s. 6.]

Covering of aggregate loads

35.06 A person must not drive or operate a vehicle on a highway while the vehicle is carrying aggregate material if any of the material is likely, if not covered, to bounce, blow or drop from the vehicle in transit, unless

(a) the material is covered in a way that prevents any of it from blowing, bouncing or dropping from the vehicle, and

(b) the cover is securely and tightly fastened so that it is not, and cannot become, a hazard.

[en. B.C. Reg. 113/2005, Sch. 1.]

Front end structures

35.07 In addition to the requirements of Division 5 of Part 1 of the Standard, a person must not drive or operate on a highway a vehicle transporting cargo that is in contact with the front end

structure of the vehicle unless the front end structure has been affixed in accordance with the manufacturer's recommendations and is

(a) permanently marked with the name and address of its manufacturer, the model number or serial number of the front end structure and its rated capacity in terms of the cargo weight that may be transported in compliance with the Standard, or

(b) identified by carrying in the vehicle a copy of a letter that has been signed by the manufacturer or a professional engineer certifying the model number or serial number of the front end structure and its rated capacity in terms of the cargo weight that may be transported in compliance with the Standard.

[en. B.C. Reg. 113/2005, Sch. 1.]

Operating vehicles with insecure cargo prohibited

35.08 (1) If a peace officer has reasonable and probable grounds to believe that a vehicle carrying cargo is unsafe for use on a highway because of the method of cargo securement, the peace officer may order the driver of the vehicle to stop the vehicle and secure the cargo before proceeding.

(2) A person must comply with an order given under subsection (1).

[en. B.C. Reg. 113/2005, Sch. 1.]

Carrying luggage in bus passenger compartments

35.09 (1) A person must not drive or operate on a highway a bus or school bus that is transporting passengers and carrying luggage or other equipment in the passenger compartment unless the luggage and other equipment

(a) do not block or intrude on any aisle or exit,

(b) are carried in overhead racks which

(i) are designed and adequately constructed for the purpose of carrying luggage and equipment,

(ii) are equipped with

(A) elastic rope or cord,

(B) doors which secure in the closed position by a positive latching mechanism, or

(C) a rigid vertical edge or side of a height equal to 1/2 of the remaining opening,

(iii) extend from the side of the bus to no further than the centreline of the aisle row of forward facing seats, and

(iv) are free of any projections,

(c) are stowed under a seat against a barrier that is constructed and placed so that it prevents the luggage and other equipment from sliding forward in the event of an emergency stop,

(d) are carried on a passenger's lap, or

- (e) are carried in a luggage compartment enclosed on all sides.
 - (2) For the purpose of subsection (1) (b) (iii), the centreline of the aisle row of seats on a school bus is 20 cm outboard from the inboard edge of each bench seat.
 - (3) A person must not load a vehicle so as to
 - (a) obscure the driver's view ahead or to the right or left side,
 - (b) interfere with the free movement of the driver's arms or legs,
 - (c) obstruct access to emergency equipment, or
 - (d) interfere with the safe operation of the vehicle in any other manner.
- [en. B.C. Reg. 113/2005, Sch. 1.]Division 36 — Child Seating and Restraint Systems

MANITOBA
Applicable Section(s) Regulation 37/2005

**THE HIGHWAY TRAFFIC ACT
(C.C.S.M. c. H60)
Cargo Securement Regulation**

Regulation 37/2005 Registered March 14, 2005

3(2) A driver must not drive a vehicle if

- (a) the vehicle does not comply with this regulation;
- (b) the cargo transported by the vehicle is not contained, covered, immobilized or secured in accordance with this regulation; or
- (c) the driver does not take any action that this regulation requires the driver to take.

Cargo securement generally

4 Without limiting the application of any provision adopted by section 2 or the application of section 3, cargo transported by a vehicle must be contained, covered, immobilized or secured so that it cannot

- (a) leak from, spill from, blow off, fall from, fall through or otherwise be dislodged from the vehicle; or
- (b) shift in or on the vehicle to such an extent that the vehicle's stability or manoeuvrability is adversely affected.

Cargo securement — certain cargo

5(1) Any portion of a load of

- (a) sand, gravel, crushed stone, ore, slag or salt, or any mixture of them, consisting in whole or part of particles 40 mm in diameter or smaller;
- (b) waste; or
- (c) shredded scrap metal; that is carried by a vehicle on a highway and not enclosed by the vehicle or a load container must be covered with a covering that meets the requirements of subsection (2).

5(2) The covering must (a) be made of tarpaulin, canvas, wire mesh, netting or another material capable of containing the load within the vehicle or load container; and (b) be secured to the vehicle or load container in such a manner that it cannot separate from the vehicle or load container.

5(3) Subsections (1) and (2) do not apply to a vehicle used (a) to collect waste for a municipality while the vehicle is being loaded or being moved during loading; (b) to carry sand, gravel, crushed stone, slag, salt or a mixture of them to a location where the load will be applied to the road surface in winter highway maintenance by or on behalf of a traffic authority; (c) to apply sand, gravel, crushed stone, slag, salt or a mixture of them to the road surface in winter highway maintenance by or on behalf of a traffic authority; or (d) for construction work within a construction site on a highway

Non-application to emergency vehicles

6 This regulation does not apply to emergency vehicles.

Repeal

7 The Securement of Vehicle Loads Regulation, Manitoba Regulation 157/91, is repealed.
Abrogation

Coming in force

8 This regulation comes into force on April 1, 2005, or on the day it is registered under The Regulations Act, whichever is later.

NEW BRUNSWICK
Applicable Section(s) Regulation 2005-103

NEW BRUNSWICK
REGULATION 2005-103
under the MOTOR VEHICLE ACT
(O.C. 2005-304)
Filed August 26, 2005

6 Cargo securement - certain cargo

Cargo securement - certain cargo

6 In addition to the specific securement requirements for the cargo types described in Part 2 of Standard 10, as adopted under section 4,

- (a) a load consisting of sawdust, shavings, wood chips or salt shall be covered entirely by a tarpaulin or other covering in a manner sufficient to prevent the escape from the vehicle of any portion of the load,
- (b) where a vehicle or combination of vehicles carries a load consisting of gravel, sand, asphalt, coal or other similar bulk materials

(i) the load shall be covered entirely by a tarpaulin or other covering in a manner sufficient to prevent the escape from the vehicle of any portion of the load, or

(ii) the vehicle shall be loaded in a manner sufficient to prevent the escape from the vehicle of any portion of the load without covering the load with a tarpaulin or other covering.

Repeal

7 New Brunswick Regulation 85-25 under the Motor Vehicle Act is repealed.

Commencement

8 This Regulation comes into force on September 1, 2005.

NEWFOUNDLAND
Applicable Section(s) REG 152/04 s.31

Sand, gravel and crushed stone

31. (1) Where a vehicle that is operating on a highway in the province is carrying a load of sand, gravel, crushed stone, slag, salt or a mixture of them in the form of particles of up to 40 millimetres in diameter or is carrying waste or scrap metal, the

(a) portion of the load that is not enclosed by the vehicle or load container shall be covered with a covering made of tarpaulin, canvas, net or other material capable of confining the load within the vehicle or load container; and

(b) container shall be designed to prevent a leakage of liquids or other material or, where the load is not enclosed in a container, the vehicle shall be equipped in a manner that prevents a leakage of liquids or other material.

(2) Paragraph (1)(a) does not apply to a vehicle being operated in the course of

(a) applying brine, sand, salt, mixture of sand and salt or a similar substance on the highway for the purpose of Winter highway maintenance;

(b) carrying sand, gravel, crushed stone or slag, of which not less than 90% shall be clear aggregate, where the highest point of the load does not extend above the top of the vehicle or load container and the perimeters of the load are not less than 30 centimetres beneath the top of the vehicle or load container; and

(c) carrying materials to highways to increase driving traction during the months of December, January, February and March, including sand, gravel, crushed stone, slag or salt where the highest point of the load does not extend above the top of the vehicle or load container and the perimeters of the load are not less than 30 centimetres beneath the top of the vehicle or load container.

(3) Paragraph 1(b) does not apply where a vehicle is being operated in the course of applying brine, sand, salt, a mixture of sand and salt or a similar substance to a highway for the purpose of winter highway maintenance.

(4) In subsection (2), "clear aggregate" means gravel, crushed stone or slag in the form of particles that are no less than 10 millimetres in diameter and not more than 40 millimetres in diameter.

152/04 s31

NOVA SCOTIA
Applicable Section(s) Regulation 226/2006

**Securing Loads on Vehicles Regulations made under subsection 199(3) of the
Motor Vehicle Act R.S.N.S. 1989, c. 293 O.I.C. 2006-546 (December 14, 2006),
N.S. Reg. 226/2006**

Interpretation Citation

- 1 These regulations may be cited as the *Securing Loads on Vehicles Regulations*.

Definitions

- 2 (1) In these regulations,
- (a) "Act" means the *Motor Vehicle Act*;
 - (b) "carrier" means a carrier as defined in clause 303A(a) of the Act;
 - (c) "Department" means the Department of Transportation and Public Works;
 - (d) "driver" means a driver as defined in clause 2(l) of the Act;
 - (e) "load", except in the term "working load limit", has the same meaning as "cargo" in the National Standard;
 - (f) "National Standard" means the National Safety Code Standard 10: Cargo Securement, as amended from time to time, published by the Canadian Council of Motor Transport Administrators and assigned ISBN number 0-921795-71-8;
 - (g) "sealed load" means a load that is placed within a means of containment so that the driver of the vehicle carrying it does not have access to the load.
- (2) Unless otherwise defined in the Act, terms defined in the National Standard have the same meanings when used in these regulations.

Application of regulations

- 3 These regulations apply to every vehicle that carries a load on a highway.

Responsibilities of Carriers, Drivers and Shippers

Compliance with regulations

- 4 (1) A carrier and each agent and employee of the carrier must comply with these regulations in connection with any vehicle that is owned, leased or otherwise the responsibility of the carrier and that carries a load on a highway.
- (2) A driver must comply with these regulations in connection with any vehicle that is driven, operated or otherwise under the charge of the driver and that carries a load on a highway.

If load secured in carrier's or driver's absence

- 5 (1) If a shipper of goods or the shipper's agent or employee loads a vehicle in the absence of the carrier, the carrier's agent or employee, or the driver, the shipper must ensure that the load is secured in compliance with these regulations.
- (2) If a carrier or the carrier's agent or employee loads a vehicle in the absence of the driver, the carrier must ensure that the load is secured in compliance with these regulations.

Owner must provide devices and post regulations

- 6 An owner or lessee of a vehicle engaged in carrying a load on a highway for commercial purposes must
 - (a) provide the load-securing devices required by these regulations; and
 - (b) post the requirements of these regulations in a conspicuous location so that they are readily accessible to all drivers, or otherwise take steps to ensure that all drivers are made aware of the requirements of these regulations.

Covering Loads

Light-weight or fine particles

- 7 (1) Except as provided in subsection (2), a load consisting in whole or in part of light-weight or fine particles that are loosely packed, including any of the following, must be covered entirely by a tarpaulin or other covering so that none of the load can escape from the vehicle:
 - (a) sawdust, shavings or wood chips;
 - (b) sand;
 - (c) salt;
 - (d) paper;
 - (e) shredded metal;
 - (f) waste.
- (2) Subsection (1) does not apply to either of the following:
 - (a) a vehicle while it is being operated to apply sand, salt, a mixture of sand and salt, or any similar substance to a highway for the purpose of winter highway maintenance;
 - (b) a vehicle while it is being operated to collect waste.

Bulk, liquid or semi-liquid materials

- 8 (1)** Except as provided in subsection (2), a load consisting of bulk, liquid or semi-liquid materials, including any of the following, must be covered entirely by a tarpaulin or other covering so that none of the load can escape from the vehicle:
- (a) firewood, Christmas trees or tree branches;
 - (b) moss or seaweed;
 - (c) gravel, crushed stone or rock;
 - (d) coal.
- (2)** Subsection (1) does not apply if the vehicle carrying the load is adequately constructed or loaded to prevent any portion of the load from escaping from the vehicle.

Vehicles Weighing 4500 kg or Less

Application of Sections 10 to 13

- 9** Sections 10 to 13 apply to a vehicle that has a registered gross vehicle weight of 4500 kg or less and that carries a load on a highway.

Means of securing load

- 10 (1)** A load carried on a vehicle must be secured by one of the following means to prevent the load from shifting on or falling from the vehicle:
- (a) sides, sideboards or stakes, and a rear endgate, endboard or stakes, each of which
 - (i) is securely attached to the vehicle,
 - (ii) has sufficient strength and height, and
 - (iii) has no opening large enough to permit any of the load to pass through;
 - (b) at least 1 tiedown that meets the requirements of Section 11 for each 3.04 linear metres of the load or fraction of 3.04 linear metres, and as many additional tiedowns that meet the requirements of Section 11 as are necessary to secure each part of the load, either by direct contact between the tiedown and the load or contact between the tiedown and dunnage that is in contact with the load;
 - (c) any other means that prevents a load from shifting or falling that is similar to, and at least as effective as, the means specified in clauses (a) and (b).
- (2)** A tiedown is deemed to comply with the requirements for contact in clause (1)(b) if it meets both of the following criteria:

- (a) it is in contact with the exterior topmost items of the load, or with dunnage that is in contact with the exterior topmost items of the load;
 - (b) it securely holds each interior and lower item of the load.
- (3)** A means of securing a load on a vehicle required by subsection (1) must be strong enough to prevent the load from shifting in a forward direction when the vehicle decelerates at a rate of 6 m per second or faster.
- (4)** This Section does not apply to either of the following:
- (a) a vehicle carrying a load that, because of its size, shape or weight, must be carried on a special-purpose vehicle or must be fastened by special methods, if the load is securely and adequately fastened to the vehicle;
 - (b) a vehicle being operated by or on behalf of an authority having jurisdiction and control over a highway to apply materials used in constructing, maintaining or marking lines on the highway.

Tiedowns

- 11 (1)** The working load limit of a tiedown or tiedown component that is marked by its manufacturer with a numeric working load limit is deemed to be the marked working load limit.
- (2)** The working load limit of a tiedown or tiedown component that is not marked by its manufacturer with a numeric working load limit is deemed to be the working load limit of the lowest grade or classification for that type and size of tiedown or tiedown component, as set out in Part 3 of the National Standard.
- (3)** The working load limit of a tiedown is the working load limit of the weakest component of that tiedown.
- (4)** Each anchor point of a tiedown must be strong enough to sustain the force exerted by the tiedown regardless of the direction of that force.
- (5)** A tiedown must not be used in any of the following circumstances:
- (a) the portion of the tiedown that would be used to secure a load has a knot in it;
 - (b) any of the tiedown's components exhibit stretch, deformation, wear or damage beyond the limits specified by the manufacturer;
 - (c) the tiedown has been repaired or shortened other than in accordance with the manufacturer's specifications.
- (6)** If a lever-type tensioning device is used on a tiedown, the handle must be locked in place and secured by an adequate secondary means to prevent its inadvertent release.

- (7) Except in the case of steel, fibre or synthetic strapping that is permanently crimped, tiedowns used on a vehicle to secure a load against movement in any direction must be designed, constructed and maintained so that the driver of the vehicle can tighten the tiedowns while in transit.

Timber used in securing loads

- 12 Timber used on or in a vehicle as dunnage, chocks or cradles or for blocking or bracing must be strong enough so that it will not be split or crushed by the load or the tiedowns.

Inspecting load while in transit

- 13 (1) Except as provided in this Section, a driver of a vehicle carrying a load on a highway must periodically and adequately inspect the load and its load-securing devices while in transit, and adjust the load and its load-securing devices as necessary to maintain the security of the load.
 - (2) A driver of a vehicle carrying a sealed load is not required to inspect or adjust the sealed load or its load-securing devices if the driver has been ordered not to open the sealed load for inspection or adjustment.
 - (3) A driver of a vehicle carrying a sealed load with the means of containment of the load secured or required to be secured to the vehicle must periodically and adequately inspect the means of containment and its load-securing devices while in transit, and adjust the means of containment and its load-securing devices as necessary to maintain the security of the means of containment.
 - (4) A driver of a vehicle carrying a load that has been loaded in a manner that makes any portion of the load or its load-securing devices inaccessible is not required to inspect or adjust the portion of the load or load-securing devices that is inaccessible.
 - (5) A driver of a vehicle carrying a load that has been loaded in a manner that makes any portion of the load or its load-securing devices inaccessible must periodically and adequately inspect the portions of the load and load-securing devices that are accessible as necessary to maintain the security of the load.

Vehicles Weighing Over 4500 kg

Application of Sections 15 and 16

- 14 Sections 15 and 16 apply to a vehicle that has a registered gross vehicle weight of more than 4500 kg and that carries a load on a highway.

National Standard adopted by reference

- 15 The National Standard is adopted with respect to every vehicle that has a registered gross vehicle weight of more than 4500 kg and that carries a load on a highway.

Exemption from National Standard

16 Subsections 5(1) and (2) and Section 9 of the National Standard do not apply to either of the following:

- (a) a vehicle carrying a load that, because of its size, shape or weight, must be carried on a special-purpose vehicle or must be fastened by special methods, if the load is securely and adequately fastened to the vehicle;
- (b) a vehicle being operated by or on behalf of an authority having jurisdiction and control over a highway to apply materials used in constructing, maintaining or marking lines on the highway.

ONTARIO
Applicable Section(s) Regulation 284-86, s. 10-12

Regulation respecting standards for the securing of loads

Replaced, O.C. 583-2005, 2005 G.O. 2, 2061; eff. 2005-07-14; see C-24.2, r. 1.01.2

**DIVISION 4
SPECIFIC RULES FOR SECURING LOADS**

10. Where the load of a road vehicle has been placed in containers intended for intermodal or multimodal goods transport, each container must be secured to the vehicle in such a way that it cannot come loose or shift.

O.C. 284-86, s. 10.

11. Where the load of a road vehicle is transported in bulk in the dumper of the vehicle, it must be held in place in the dumper by a tarpaulin corresponding to the length and width of the dumper of the vehicle or by a canvas or other type of covering of the same size.

The first paragraph does not apply in any of the following circumstances:

- (1) where the total loaded mass of the vehicle does not exceed 4 500 kilograms;
- (2) where the vehicle is spreading salt, sand, a mixture of sand and salt or any other substance used for winter road maintenance;
- (3) where the vehicle is transporting aggregates more than 40 millimetres in diameter;
- (4) where the vehicle crosses a public highway from a private highway.

O.C. 284-86, s. 11.

12. Where the load of a road vehicle is comprised of sod rolls, it must be held in place by a tarpaulin, a canvas, netting or any other covering, or by straps individually securing the rows of rolls stacked on pallets, unless such load is held in place in accordance with subparagraph *a* or *b* of paragraph 1 of section 8.

O.C. 284-86, s. 12.

General Cargo Securement Standards

§7. Bulk cargo

16. Subject to the third paragraph, bulk cargo in a dump truck, container or other type of container whose upper part is totally or partially open must be restrained by a covering system consisting of a tarpaulin, canvas or other type of equivalent covering.

The covering system must cover at least any portion of the load that extends beyond a reference point 15 cm below the top of the lowest wall. It must remain in direct contact with any portion of the load that extends beyond the nearest wall, unless the covering system is maintained above the load by bows secured to the vehicle. It must be exempt from tears or other damage in the section used for securement.

The first and second paragraphs do not apply if

- (1) the vehicle is proceeding across a public highway from a private road;
- (2) the top of the load does not extend beyond the reference point referred to in the second paragraph;
- (3) the load extending beyond the reference point referred to in the second paragraph consists only of elements exceeding 40 mm in 3 dimensions and the 3 perimeters of the load do not extend beyond the top of the lowest wall;
- (4) the vehicle is applying salt, sand, a mixture of salt and sand or other similar substance in connection with winter road maintenance;
- (5) the vehicle is applying dust suppressants on a road; or
- (6) the vehicle is transporting snow, ice or other similar substance collected during a snow removal operation.

O.C. 583-2005, s. 16.

SASKATCHEWAN
Applicable Section(s) 40 (1-5)

HIGHWAYS AND TRANSPORTATION, 1997 c. H-3.01

Vehicle loads

40(1) In this section, “dangerous good” means a dangerous good within the meaning of The Dangerous Goods Transportation Act and any regulations pursuant to that Act.

(2) No person shall cause or allow a vehicle to be loaded or drive a vehicle so that when the vehicle is driven on a public highway all or any part of the load drops or is likely to drop onto the public highway.

(3) No person shall cause or allow a vehicle to be loaded or drive a vehicle so that when the vehicle is driven on a public highway there is a discharge, emission or escape of a dangerous good or evidence that a discharge, emission or escape of a dangerous good loaded on the vehicle is imminent.

(4) No person shall operate on a public highway a vehicle transporting cargo where the load is not transported and secured in accordance with the regulations.

(5) Every person who contravenes any of the provisions of this section is guilty of an offence and liable on summary conviction to a fine as set forth in Category D in Schedule A.

1997, c.H-3.01, s.40.

YUKON
Applicable Section(s) 193.1(1)

Section 193.1

(1) No person shall drive a vehicle with a load in, on, or attached to the vehicle on a highway unless the person has done what is reasonable to secure that type of load in the prevailing highway and weather conditions, so that the load or any part of the load remains in, on, or attached to the vehicle.

(2) No person shall drive a vehicle on a highway which carries a load in, on or attached to the vehicle in such a manner that the load or part of the load falls off or out of the vehicle, or is a hazard to, or harms, any other highway user.

(3) A person who

(a) fails to do what is reasonable be with regard to a load contrary to subsection (1),
or

(b) allows a load or part of a load to fall off or out of a loaded vehicle or allows a load or part of a load to harm, or be a hazard to, any other highway user, contrary to subsection (2) commits an offence.

Federal Motor Carrier Safety Administration's Cargo Securement Rules

Background

On September 27, 2002, the Federal Motor Carrier Safety Administration (FMCSA) published new cargo securement rules. Motor carriers operating in interstate commerce must comply with the new requirements beginning January 1, 2004. The new rules are based on the North American Cargo Securement Standard Model Regulations, reflecting the results of a multi-year research program to evaluate U.S. and Canadian cargo securement regulations; the motor carrier industry's best practices; and recommendations presented during a series of public meetings involving U.S. and Canadian industry experts, Federal, State and Provincial enforcement officials, and other interested parties. The new rules require motor carriers to change the way they use cargo securement devices to prevent articles from shifting on or within, or falling from commercial motor vehicles. The changes may require motor carriers to increase the number of tiedowns used to secure certain types of cargo. However, the rule generally does not prohibit the use of tiedowns or cargo securement devices currently in use. Therefore, motor carriers are not required to purchase new cargo securement equipment or vehicles to comply with the rule. The intent of the new requirements is to reduce the number of accidents caused by cargo shifting on or within, or falling from, commercial motor vehicles operating in interstate commerce, and to harmonize to the greatest extent practicable U.S., Canadian, and Mexican cargo securement regulations.

Applicability of the New Rules

The new cargo securement rules apply to the same types of vehicles and cargo as the old rules, covering all cargo-carrying commercial motor vehicles (as defined in 49 CFR 390.5) operated in interstate commerce. This includes 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.

Performance Criteria

FMCSA has adopted new performance requirements concerning deceleration in the forward direction, and acceleration in the rearward and lateral directions, that cargo securement systems must withstand. Deceleration is the rate at which the speed of the vehicle decreases when the brakes are applied, and acceleration is the rate at which the speed of the vehicle increases in the lateral direction or sideways (while the vehicle is turning), or in the rearward direction (when the vehicle is being driven in reverse and makes contact with a loading dock). Acceleration and deceleration values are commonly reported as a proportion of the acceleration due to gravity (g). This acceleration is about 9.8 meters/second/second (32.2 feet/second/second), which means that the velocity of an object dropped from a high elevation increases by approximately 9.8 meters/second (32.2 feet/second) each second it falls. FMCSA requires that cargo securement systems be capable of withstanding the forces associated with following three deceleration/accelerations, applied separately:

- 0.8 g deceleration in the forward direction;
- 0.5 g acceleration in the rearward direction; and
- 0.5 g acceleration in a lateral direction.

These values were chosen based on researchers' analysis of studies concerning commercial motor vehicle performance. The analysis indicated that the highest deceleration likely for an empty or lightly loaded vehicle with an antilock brake system, all brakes properly adjusted, and warmed to provide optimal braking performance, is in the range of 0.8-0.85 g. However, a typical loaded vehicle would not be expected to achieve a deceleration greater than 0.6 g on a dry road. The typical lateral acceleration while driving in a curve or on a ramp at the posted advisory speed is in the range 0.05-0.17 g. Loaded vehicles with a high center of gravity roll over at a lateral acceleration above 0.35 g. Lightly loaded vehicles, or heavily loaded vehicles with a lower center of gravity, may withstand lateral acceleration forces greater than 0.5 g.

Generally, motor carriers are not required to conduct testing of cargo securement systems to determine compliance with the performance requirements. The new rules explicitly state that cargo immobilized or secured in accordance with the general securement rules, or the commodity-specific rules, are considered to meet the performance criteria.

Requirements for Securement Devices

The new rules require that all devices and systems used to secure cargo to or within a vehicle must be capable of meeting the performance criteria. All vehicle structures, systems, parts and components used to secure cargo must be in proper working order when used to perform that function with no damaged or weakened components that could adversely affect their performance. The cargo securement rules incorporate by reference manufacturing standards for certain types of tiedowns including steel strapping, chain, synthetic webbing, wire rope, and cordage. FMCSA has updated the rules to reference the November 15, 1999, version of the National Association of Chain Manufacturers (NACM) Welded Steel Chain Specifications. The agency notes that some of the working load limit values in the 1999 version differ slightly from the previous edition of this publication. Also, the 1999 version includes working load limits for a new grade of alloy chain, grade 100. The agency also changed its reference for synthetic webbing from the 1991 edition to the 1998 edition of the Web Sling and Tiedown Association's publication. Generally, the working load limits are the same as those in the 1991 publication. Changes in the references do not necessarily mean the older securement devices need to be replaced. Motor carriers are not required to replace tiedown devices purchased prior to January 1, 2004. If the tiedowns satisfied the old rules, the devices should also satisfy the new rules.

Proper Use of Tiedowns

The new regulations require each tiedown to be attached and secured in a manner that prevents it from becoming loose, unfastening, opening or releasing while the vehicle is in transit. All tiedowns and other components of a cargo securement system used to secure loads on a trailer equipped with rub rails must be located inboard of the rub rails whenever practicable. Also, 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.

Use of Unmarked Tiedowns

The new rules do not prohibit the use of unmarked tiedown devices. Although many of the participants in the public meetings and numerous commenters to the rulemaking proposal argued the rules should include such a prohibition, FMCSA believes it is inappropriate to prohibit unmarked tiedowns at this time. However, in view of the potential safety hazards of motor carriers misidentifying unmarked tiedowns, there is a provision that unmarked

welded steel chain be considered to have a working load limit equal to that of grade 30 proof coil, and other types of unmarked tiedowns be considered to have a working load limit equal to the lowest rating for that type in the table of working load limits.

Unrated and Unmarked Anchor Points

FMCSAs cargo securement rules do not require rating and marking of anchor points. While the agency encourages manufacturers to rate and mark anchor points, the new rules do not include a requirement for ratings and markings.

Front End Structures on CMVs

FMCSA revised its rules concerning front-end structures or headerboards by changing the applicability of the requirements to cover CMVs transporting cargo that is in contact with the front-end structure of the vehicle. By contrast, the old rules required certain vehicles to be equipped with front-end structures regardless of whether the devices were used as part of a cargo securement system.

Summary of the General Cargo Securement Rules

The new cargo securement rules include general securement rules applicable to all types of articles of cargo, with certain exceptions, and commodity-specific rules covering commodities that are considered the most difficult to determine the most appropriate means of securement. Requirements concerning securement, working load limits, blocking and bracing are applicable to all commodities being transported. The commodity-specific requirements take precedence over the general rules when additional requirements are given for a commodity listed in those sections. This means all cargo securement systems must meet the general requirements, except to the extent a commodity-specific rule imposes additional requirements that prescribe in more detail the securement method to be used.

General Rule

Cargo must be firmly immobilized or secured on or within a vehicle by structures of adequate strength, dunnage (loose materials used to support and protect cargo) or dunnage bags (inflatable bags intended to fill space between articles of cargo or between cargo and the wall of the vehicle), shoring bars, tiedowns or a combination of these.

Cargo Placement and Restraint

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. Articles of cargo placed beside each other and secured by transverse tiedowns must be:

1. Placed in direct contact with each other, or
2. Prevented from shifting towards each other while in transit.

Minimum Working Load Limit for Cargo Securement Devices and Systems

The aggregate working load limit of any securement system used to secure an article or group of articles against movement must be at least one-half the weight of the article or group of articles. The aggregate working load limit is the sum of: One-half the working load limit of each tiedown that goes from an anchor point on the vehicle to an attachment point on an article of cargo; and The working load limit for each tiedown that goes from an anchor

point on the vehicle, through, over or around the cargo and then attaches to another anchor point on the vehicle.

Minimum Number of Tiedowns

The cargo securement system used to restrain articles against movement must meet requirements concerning the minimum number of tiedowns. This requirement is in addition to complying with rules concerning the minimum working load limit.

When an article of cargo is not blocked or positioned to prevent movement in the forward direction, the number of tiedowns needed depends on the length and weight of the articles. There must be - one tiedown for articles 5 ft or less in length, and 1,100 lbs or less in weight; two tiedowns if the article is -

1. 5 ft or less in length and more than 1,100 lbs in weight; or
2. greater than 5 ft but less than 10 ft, regardless of weight.

In the following example, one tiedown is required because the article of cargo is 5 ft in length and does not exceed 1,100 lbs. If the article of cargo were greater than 5 ft in length but less than 10 ft, two tiedowns would be needed regardless of the weight. When an article of cargo is not blocked or positioned to prevent movement in the forward direction, and the item is longer than 10 ft in length, then it must be secured by two tiedowns for the first 10 ft of length, and one additional tiedown for every 10 ft of length, or fraction thereof, beyond the first 10 ft. An example of this is provided below.

If an article is blocked, braced or immobilized to prevent movement in the forward direction by a headerboard, bulkhead, other articles that are adequately secured, or other appropriate means, it must be secured by at least one tiedown for every 10 ft of article length, or fraction thereof.

Special Rule for Special Purpose Vehicles

Generally, the basic rules concerning the minimum number of tiedowns 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 secured adequately to the vehicle by devices that are capable of meeting the performance requirements and the working load limit requirements.

Commodity-Specific Securement Requirements

FMCSA has adopted detailed requirements for the securement of the following commodities: logs; dressed lumber; metal coils; paper rolls; concrete pipe; intermodal containers; automobiles, light trucks and vans; heavy vehicles, equipment and machinery; flattened or crushed vehicles; roll-on/roll-off containers; and large boulders. During public meetings concerning the development of the model regulations, participants said that these commodities cause the most disagreement between industry and enforcement agencies as to what is required for proper securement.

393.116 - Logs

The rules for the transportation of logs are applicable to the transportation of almost all 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.
2. Loads that consist of no more than four processed logs may be transported in accordance with the general cargo securement rules.
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 transported in an enclosed vehicle or container.

393.118 - Dressed Lumber and Similar Building Products

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 that are not bundled or packaged must be treated as loose items and transported in accordance with the general cargo securement rules. For the purpose of this section, the term " bundle " refers to packages of lumber, building materials or similar products which are unitized for securement as a single article of cargo.

393.120 - Metal Coils

The rules in this section apply to the transportation of one or more metal coils which, individually or grouped together, weigh 2,268 kg (5,000 lbs) or more. Shipments of metal coils that weigh less than 2,268 kg (5,000 lbs) may be secured in accordance with the general cargo securement rules.

393.122 - Paper Rolls

The rules for securing paper rolls are applicable to shipments of paper rolls which, individually or together, weigh 2,268 kg (5,000 lbs) or more. Shipments of paper rolls that weigh less than 2,268 kg (5,000 lbs), and paper rolls that are unitized on a pallet, may either be secured in accordance with the rules in this section or the general cargo securement rules.

393.124 - Concrete Pipe

The rules in this section apply to the transportation of concrete pipe on flatbed trailers and vehicles and lowboy trailers. Concrete pipe that is bundled tightly together into a single rigid article with no tendency to roll, and concrete pipe loaded in a sided vehicle or container must be secured in accordance with the general rules.

393.126 - Intermodal Containers

The requirements for intermodal containers cover the transportation of these containers on container chassis and other types of vehicles. Intermodal containers are freight containers designed and constructed to permit them to be used interchangeably in two or more modes of transportation. Cargo contained within intermodal containers must be secured in accordance with the general cargo securement rules or, if applicable, the commodity-specific rules.

393.128 - Automobiles, Light Trucks and Vans

This portion of the new standards applies to the transportation of automobiles, light trucks, and vans which individually weight 4,536 kg (10,000 lbs) or less. Vehicles which individually are heavier than 4,536 kg (10,000 lbs) must be secured in the same manner as heavy vehicles, equipment and machinery (see the rules under /393.126).

393.130 Heavy Vehicles, Equipment and Machinery

These requirements are applicable 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 lbs) or more. Vehicles, equipment and machinery which is lighter than 4,536 kg (10,000 lbs) may be secured in accordance with these rules, the rules for automobiles, light trucks and vans, or the general freight requirements.

393.132 - Flattened or Crushed Vehicles

The transportation of vehicles such as automobiles, light trucks and vans that have been flattened or crushed is covered by these requirements. The transportation of automobiles that are flattened or crushed in a crash or accident, as opposed to being intentionally flattened or crushed in preparation for transportation to recycling facilities, is not subject to these requirements. However, vehicles damaged in a crash or accident are subject to the general cargo securement requirements.

393.134 Roll-on/Roll-Off or Hook-lift Containers

These rules apply to the transportation of roll-on/roll-off or hook lift containers. A hook-lift container is defined in 49 CFR 393.5 as 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.

Section 393.134 is not, however, applicable to the operation of hoist-type equipment (or hoist equipment) as described in American National Standards Institute (ANSI) publication ANSI 2245.1. Hoist-type equipment should be considered separate and distinct from roll-on/roll-off equipment and, therefore, not subject to 393.134. Containers transported on hoist-type equipment must be secured in accordance with the general securement rules.

393.136 Large Boulders

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 lbs) 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. Pieces of rock weighing more than 100 kg (220 lbs), but less than 5,000 kg (11,000 lbs) must be secured, either in accordance with this section, or in accordance with the general cargo securement rules, including: (1) rock contained within a vehicle which is designed to carry such cargo; or (2) secured individually by tiedowns, provided each piece can be stabilized and adequately secured. 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 general securement rules.

PART 393 – PARTS AND ACCESSORIES NECESSARY FOR SAFE OPERATION

Subpart I Protection against Shifting and Falling Cargo

§393.100 Which types of commercial motor vehicles are subject to the cargo securement standards of this subpart, and what general requirements apply?

- (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?

- (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 § 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.

Citation: [71 FR 35832, June 22, 2006, as amended at 78 FR 58484, Sept. 24, 2013]

§ 393.104: What standards must cargo securement devices and systems meet in order to satisfy the requirements of this subpart?

(a) General. All devices and systems used to secure cargo to or within a vehicle must be capable of meeting the requirements of § 393.102.

(b) Prohibition on the use of damaged securement devices. All tiedowns, cargo securement systems, parts and components used to secure cargo must be in proper working order when used to perform that function with no damaged or weakened components, such as, but not limited to, cracks or cuts that will adversely affect their performance for cargo securement purposes, including reducing the working load limit.

(c) Vehicle structures and anchor points. Vehicle structures, floors, walls, decks, tiedown anchor points, headerboards, bulkheads, stakes, posts, and associated mounting pockets used to contain or secure articles of cargo must be strong enough to meet the performance criteria of § 393.102, with no damaged or weakened components, such as, but not limited to, cracks or cuts that will adversely affect their performance for cargo securement purposes, including reducing the working load limit.

(d) Material for dunnage, chocks, cradles, shoring bars, blocking and bracing. Material used as dunnage or dunnage bags, chocks, cradles, shoring bars, or used for blocking and bracing, must not have damage or defects which would compromise the effectiveness of the securement system.

(e) Manufacturing standards for tiedown assemblies. 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 conform to the following applicable standards:

(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.

Citation: [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?

(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.

Citation: [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?

(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.

Tables to §393.108
[Working Load Limits (WLL), Chain]

Size mm (inches)	WLL in kg (pounds)				
	Grade 30 proof coil	Grade 43 high test	Grade 70 transport	Grade 80 alloy	Grade 100 alloy
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

Synthetic Webbing

Width mm (inches)	WLL kg (pounds)
45 (13/4)	790 (1,750)
50 (2)	910 (2,000)
75 (3)	1,360 (3,000)
100 (4)	1,810 (4,000)

Wire Rope (6 × 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)

Polyester Fiber Rope WLL (3-Strand and 8-Strand Constructions)

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)

Nylon Rope

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)

Double Braided Nylon Rope

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)

Steel Strapping

Width × thickness mm (inches)	WLL kg (pounds)
31.7 × .74 (1 1/4 × 0.029)	540 (1,190)
31.7 × .79 (1 1/4 × 0.031)	540 (1,190)
31.7 × .89 (1 1/4 × 0.035)	540 (1,190)
31.7 × 1.12 (1 1/4 × 0.044)	770 (1,690)
31.7 × 1.27 (1 1/4 × 0.05)	770 (1,690)
31.7 × 1.5 (1 1/4 × 0.057)	870 (1,925)
50.8 × 1.12 (2 × 0.044)	1,200 (2,650)
50.8 × 1.27 (2 × 0.05)	1,200 (2,650)

§ 393.110: What else do I have to do to determine the minimum number of tiedowns?

(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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

§ 393.112: Must a tiedown be adjustable?

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?

(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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35833, June 22, 2006]

393.116 – 393.136 Specific Securement Requirements by Commodity Type

§ 393.116: What are the rules for securing logs?

(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.

Citation: [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?

(a) *Applicability.* The rules in this section apply to the transportation of bundles of dressed lumber, packaged lumber, and 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 in accordance with the general provisions of §§393.100 through 393.114 over the second tier or over a middle tier of a maximum height of 1.85 meters (6 ft) above the trailer deck, whichever is greater, for each stack of bundles composed of more than two tiers; 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.

§ 393.118: What are the rules for securing dressed lumber or similar building products?

(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 above 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
 - (e) 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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 71 FR 35834, June 22, 2006; 78 FR 58484, Sept. 24, 2013]

§ 393.120: What are the rules for securing metal coils?

- (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 in an 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 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, then 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 in an 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 in an 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.

(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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 78 FR 58484, Sept. 24, 2013]

§ 393.124: What are the rules for securing concrete pipe?

(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.

(e) 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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 78 FR 58484, Sept. 24, 2013]

§393.124 What are the rules for securing concrete pipe?

(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 x 15 cm (4 x 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. (e) *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 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) 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?

- (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.

Citation: [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?

(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?

(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?

(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.

Citation: [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?

(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?

(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 hardwood 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.

Citation: [67 FR 61225, Sept. 27, 2002, as amended at 78 FR 58484, Sept. 24, 2013

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Source: fmcsa.dot.gov/regulations/cargo-securement/cargo-securement-rules

Date Accessed: March 2015

Other Resources

National Safety Code for Motor Carriers