

THE TRANSPORTATION OF DANGEROUS COMMODITIES

HIGHLIGHTS.

1. Ever since motor transportation has existed, some dangerous commodities have been transported by truck. Until World War II the bulk of explosives were transported by railroad. While most attention has been paid to the transportation of explosives and inflammable liquids, there are other dangerous commodities which may also require regulation.
2. The transportation of such commodities is regulated by the federal government in the case of interstate shipments, and by the state in the case of intrastate shipments. Regulation by municipalities also exists.
3. During World War II by reason of the pressure on production and delivery, truckers secured temporary authority from the Interstate Commerce Commission to transport explosives. These authorities were good for 6 months and were renewable.
4. Currently motor transport companies are seeking permanent authority to transport explosives.
5. The interstate transportation of dangerous commodities is regulated by the Interstate Commerce Commission which is now considering the applications of the truckers.
6. About 30 states provide some regulation of the transportation of dangerous commodities.
7. In 17 of them the provisions conform to the Uniform Vehicle Code in at least certain aspects.
8. In Wisconsin the regulation of the transportation of explosives is based on an administrative order of the Industrial Commission first promulgated in 1932 and currently under revision.
9. The potential danger to the highway users and to the highways of widespread transportation of dangerous commodities caused the Governors' conference of 1951 to interest itself in the hearings before the Interstate Commerce Commission.
10. There is no agreement at this time as to actual danger resulting from the transportation of dangerous commodities on the public highways. No figures exist as to the accidents which have occurred, but examples do exist of the total destruction which may result from a collision involving a vehicle transporting dangerous commodities.

THE TRANSPORTATION OF DANGEROUS COMMODITIES

THE PROBLEM.

Highway safety continues to be an important concern throughout this country in spite of the many safety precautions which have been developed. Among the factors which may operate to create continual hazards are:

1. The increased speed and power of vehicles.
2. The larger number of vehicles.
3. The broader use of motor transport.

One of the manifestations of the third factor which creates a potential highway safety hazard, the broader use of motor transport, is the use of trucks to haul dangerous commodities. Highly volatile liquids and explosives have been transported for many years. Gasoline and oil have been transported ever since automobiles and airplanes have existed. Explosives have long been transported for such things as construction, especially highways, well digging, and mining operations. Recently the problem has received greater attention because the application of truckers for permanent authority to transport explosives on the public highways highlighted a practice which had been growing.

Why has this problem arisen? There are several reasons:

1. Many communities are no longer served by railroad which formerly transported such commodities on their own rights of way.
2. The dispersion of industry has resulted in the production and use of such commodities in a larger number of places.
3. The dangers inherent in transportation on the public highways are more real to the people than the same dangers existing on railroad rights of way.
4. The exigencies of World War II resulted in the easing of restrictions and the development of practices involving calculated risks to accomplish the task of production and distribution which were so necessary then.
5. Convenience and price advantages resulted from the changes in methods of transportation.

The problem of making reasonable regulations regarding the transportation of dangerous commodities is the concern of the federal, state and local government.

1. The regulation of interstate commerce is the concern of the federal government.

2. The regulation of intrastate commerce is the concern of the state.
3. Regulation^{is} in the interest of safety to local people.

THE FEDERAL LEVEL

During World War II the federal ICC granted temporary certification of authority for 180 days to truckers to carry explosives. In 1951 60 truckers made application for permit authority to transport explosives in interstate commerce. Hearings on these proposals began in September 1951. The advocates included the truckers and the Department of Defense which is alleged to save about \$20 per 100 tons by truck shipments. The opposition included the AAA, executive commission of the 1951 Governors Conference, the states of California, Colorado, New Jersey, Ohio, Pennsylvania, and Wisconsin, the cities of Milwaukee, New York, Pittsburg, St. Joseph, and St. Louis, the American Association of State Highway Officers, the National Sheriff's Association, the Association of American Railroads, and the PTA. Thirty-eight of the applications have since been withdrawn and some of the remaining 22 have present authority to operate in Wisconsin.

Present ICC regulations on the subject are contained in Motor Carrier Safety Regulations, Revised, Part 7, which contains 107 pages. This deals with not only explosives but other types of dangerous commodities including inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids (acids), compressed gases, poisons. Detailed provisions for the marking of vehicles, loading and unloading, driving, parking, design and construction are included.

In 1944 the Bureau of Mines, U. S. Department of Interior, incorporated into a revision of the Federal Explosives Act certain recommendations for the handling of explosives which were as follows:

Recommendations

1. Any vehicle transporting explosives should be marked or placarded on the front end, both sides, and rear with the word "Explosives" in letters not less than 4 inches in height in colors contrasting with the background; or the vehicle should carry in a conspicuous place a red flag not less than 24 inches square with the word "Explosives" in white letters at least 3 inches in height or the word "Danger" in letters 6 inches in height.
2. Vehicles should not carry blasting caps or detonators while carrying other explosives; and no metal, metal tools, oils, matches, firearms, acids, inflammable substances, or similar materials should be carried on vehicles transporting explosives.
3. Vehicles transporting explosives should not be overloaded, and in no case should the explosives containers be piled higher than the closed sides of the body. Any vehicle with an open body should have a tarpaulin to cover the explosives containers.

4. All vehicles when used for transporting explosives should be inspected to determine that: The brakes and steering mechanism are in effective working condition; the electric wiring is well insulated and firmly secured; the body and chassis are clean and free from accumulations of oil and grease; the fuel tank and feed line are secure and have no leaks; two suitable fire extinguishers in working order and located near the driver's seat are provided; and, in general, the vehicle is in proper condition for safe transportation of explosives.

5. The floors of all vehicles should be tight. Any exposed metal on the inside of the body that might come into contact with any package of explosives should be covered or protected with wood or other nonmetallic material.

6. No explosives should be transported in any form of pole-type trailer, nor should any trailer be attached to a vehicle hauling explosives.

7. Vehicles transporting explosives should be driven only by authorized persons not addicted to the use of, or under the influence of, intoxicants or narcotics. Vehicle speed should not exceed 35 miles per hour; motor vehicles should not coast or free-wheel at any time. Vehicles containing explosives should not be taken inside a garage for repairs or other purposes. Transporting explosives on streets or highways should be done only during daylight hours when this is feasible.

8. Vehicles transporting explosives should come to a full stop before crossing any railroad track or main public highway, and then proceed with caution, and conform to all other traffic safety measures.

9. Passengers or other unauthorized persons should not ride on a vehicle transporting explosives. Smoking or the carrying of matches and smokers' articles should not be permitted on or around a vehicle transporting explosives.

10. Vehicles transporting explosives should not be left unattended at any time except while making actual deliveries, and then the utmost effort should be made to prevent the vehicle from running away by careful setting of brakes, blocking the wheels, or taking other precautions.

11. Packages or containers of explosives should not be thrown or dropped while being loaded or unloaded or otherwise handled, but they should be carefully deposited and stored or placed in such a manner as to prevent the packages or containers from sliding or falling or being otherwise displaced.

12. Explosives cases or containers should not be left immediately back of the exhaust tailpipe of automotive equipment during loading or unloading.

13. Motors of vehicles transporting explosives should be stopped before loading or unloading the explosives.

14. Motor vehicles should not be unloaded if explosives already unloaded have not been safely stored.

THE STATE LEVEL IN GENERAL

The National Conference on Street and Highway Safety has included the transportation of explosives among the provisions of its Uniform Vehicle Code. Section 159 of Act V (Uniform Traffic Code) is as follows:

"Vehicles transporting explosives.--Any person operating any vehicle transporting any explosive as a cargo or part of a cargo upon a highway shall at all times comply with the provisions of this section.

"(a) Said vehicle shall be marked or placarded on each side and the rear with the word "Explosives" in letters not less than 8 inches high, or there shall be displayed on the rear of such vehicle a red flag not less than 24 inches square with the word "Danger" in white letters 6 inches high.

"(b) Every said vehicle shall be equipped with not less than two fire extinguishers, filled and ready for immediate use, and placed at a convenient point on the vehicle so used.

"(c) The commissioner is hereby authorized and directed to promulgate such additional regulations governing the transportation of explosives and other dangerous articles by vehicles upon the highways as he shall deem advisable for the protection of the public."

The 17 states which have adopted the Uniform Vehicle Code in whole or in part are:

Alabama	Iowa	Ohio
Arizona	Kansas	Rhode Island
Arkansas	Kentucky	South Carolina
Colorado	Michigan	Texas
Delaware	Mississippi	West Virginia
Illinois	North Carolina	

Thirteen states have adopted provisions relating to transportation of explosives which are not based upon the Uniform Vehicle Code. These are:

California	Nebraska	Oklahoma
Louisiana	Nevada	Pennsylvania
Maryland	New Hampshire	Utah
Minnesota	New York	Vermont
		Washington

The remaining 18 states (Wisconsin included) have no statutes on transporting explosives. These states either use the ICC regulations or their own regulations.

SPECIFIC STATUTES AND REGULATIONS ON THE SUBJECT.

Connecticut—1949 General Revision of the Statutes.

Section 4137. Storage, Transportation and Use of Explosives.

(a) The Commissioner of State Police is directed to prepare and enforce reasonable regulations for the safe and convenient storage, transportation, and use of explosives as defined in section 4131, which regulations shall deal in particular with the quantity and character of explosives to be stored, transported and used, the proximity of such storages to inhabited dwellings, public highways and railroad tracks, the character and construction of suitable magazines for such storage and the abatement of any hazard that may arise incident to the storage, transportation and use of such explosives.

(b) No person shall manufacture, keep, store, sell or deal in any explosives or any material or compound manufactured as defined in said section 4131 unless he shall first obtain from the Commissioner of State Police or from the Fire Marshal of the town where such business is conducted a written license therefor which shall not be valid for more than one year and for which he shall pay a fee of five dollars to the authority granting such license. Such license so granted shall definitely state the location of the building where such business is to be carried on or such explosive deposited and shall state that such building or premises complies with the regulations provided for in this section.

(c) No person shall procure, transport or use any explosives defined in said section 4131 without first obtaining a written permit therefor signed by the Commissioner of State Police or by the Fire Marshal of the town where such explosive is to be used, specifying the name of the purchase, the amount to be purchased and transported and the purpose for which it is to be used. No carrier shall transport any such explosives unless such written permit shall accompany the same and no person shall have in his possession any such explosive unless he shall have a license or permit therefor. The fee for such permit shall be twenty-five cents. Each person who shall have in his custody or possession any explosive or any detonating caps for explosives shall keep the same under personal observation or securely locked up.

Section 4138. Transportation of Explosives by Common Carrier.

No person shall transport, carry or convey gasoline or any other inflammable and explosive substance, not in use to supply motive power, light or heat, on any vessel, car or vehicle operated in the transportation of passengers by a common carrier, which vessel, car or vehicle is carrying passengers for hire; provided such substances may be transported upon any vessel or steam railroad car if they are not carried in that part of such vessel or car which is being used for

the transportation of passengers for hire, and that small arms ammunition in any quantity and such fuses, torpedoes, rockets or other signal devices as may be essential to promote safety in operation may be transported on any vessel, car or vehicle. Nothing in this section shall prevent the transportation of military or naval forces with their accompanying munitions of war on passenger-equipment vessels, car or vehicles. No person shall bring into or place upon any such vessel, car or vehicle any gasoline or other inflammable and explosive substance except as herein provided. Any person or the officers of any corporation violating any provision of this section shall be fined not more than one thousand dollars or imprisoned not more than six months or both.

Connecticut--Department of State Police--Rules and Regulations
Governing the Storage, Transportation and Use of Explosives.
(Revision of 1946)

Sections 200-85 through 200-110.

Sec. 200-85. Every dealer in, or transporter of, explosives who makes deliveries of explosives in this state shall have one or more suitable vehicles for such purpose.

Sec. 200-86. The body of such vehicle used for the transportation of explosives shall be entirely enclosed. The doors shall be equipped with strong hinges securely bolted on the inside and provided with two suitable padlocks which shall be kept locked at all times when explosives are carried. The under side of the body, shall be made fire-resisting by being covered with 1/4 inch of sheet asbestos which, in turn, shall be covered by 20 gauge galvanized iron. (Detail of construction will be furnished on application.) The entire body, including the doors, should be so constructed that no bolts, screws, nails or other metal shall be exposed on the inside thereof.

Sec. 200-87. Each such vehicle shall be painted bright red and shall bear signs on the front, rear and each side bearing the word "Explosives" in letters not less than four inches in height. The lettering shall be white. When explosives are being carried therein a red flag not less than twenty-four inches square shall be conspicuously displayed on the left front and rear of such vehicle.

Sec. 200-88. Not more than two tons of dynamite or similar explosives shall be transported on a vehicle at any one time through any public street or highway.

Sec. 200-89. Each such vehicle so used shall be equipped with two fire extinguishers which shall be properly charged and in good working order at all times.

Sec. 200-90. Each vehicle used in the transportation of explosives shall be in good mechanical condition and at no time shall it be loaded beyond its capacity.

Sec. 200-91. Each owner or operator of such vehicle, if it be a motor vehicle, shall make daily inspections of his vehicle and see that the fire extinguishers are in good condition; that the chassis, motor and pan are free from grease and oil, and that all of the mechanical parts are in good working order.

Sec. 200-92. Explosives shall not be transported in any form of trailer nor shall any trailer be attached to any vehicle which is carrying explosives.

Sec. 200-93. Not more than 200 pounds of dynamite nor more than 1,000 blasting caps or electric blasting caps shall be transported in any vehicle which does not comply with the above requirements.

Sec. 200-94. Each vehicle transporting more than 200 pounds of dynamite or 1,000 blasting caps or electric blasting caps shall be equipped with puncture-proof tubes on all of the four wheels.

Sec. 200-95. All vehicles transporting explosives shall come to a full stop before entering upon a main highway.

Sec. 200-96. Blasting caps or electric blasting caps of any kind shall not be transported in any vehicle which contains dynamite, black powder or other similar explosives.

Sec. 200-97. In loading or unloading explosives shall be given to the handling of same and in loading a vehicle the cases shall be placed or stowed as to prevent displacement during transit. No bail-hook or metal tools shall be used in loading or unloading.

Sec. 200-98. When explosives are being transported they shall be packed in strong wooden boxes or other containers suitable for that purpose. Each box or case shall be plainly marked stating the make and type of explosives contained therein.

Sec. 200-99. Explosives shall not be transported between sunset and sunrise except by the special permission of the Commissioner or Fire Marshal.

Sec. 200-100. Vehicles loaded with explosives shall keep at least five hundred feet apart.

Sec. 200-101. Owners of explosives vehicles shall employ only careful, capable and reliable persons to operate explosives vehicles who shall be familiar with all state laws and regulations, and with the local ordinances relating to the transportation of explosives.

Sec. 200-102. Vehicles carrying explosives shall come to a full stop before crossing any railroad tracks. Such vehicles shall not make unnecessary stops and shall not be parked in any public street or highway or in any repair shop or garage or near any church, school, or other place of public assembly.

Sec. 200-103. Vehicles carrying explosives shall not travel faster than 35 miles per hour and shall not coast down any hill. Whenever possible such vehicles must detour the center of cities and towns through which it is necessary to pass.

Sec. 200-104. No vehicle carrying explosives shall be operated by any person under 21 years of age and no operator of such vehicle shall be permitted to operate more than 12 hours in any one day.

Sec. 200-105. The operator of a vehicle carrying explosives shall not smoke, carry matches, or use intoxicating liquors while so engaged or permit any other person on such vehicle to do so.

Sec. 200-106. All accidents, fires or explosions, no matter how small, occurring in connection with the transportation of explosives shall be reported to the Department of State Police at Hartford at once by telephone and be supplemented by a detailed written report.

Sec. 200-107. No passengers or unnecessary persons shall be permitted to ride on vehicles carrying explosives.

Sec. 200-108. No metal, metal tools, carbides, oil, matches, firearms, electric storage batteries, inflammable substances, acids, oxidizing or corrosive compounds shall be carried in the bed or body of any motor truck or vehicle transporting explosives.

Sec. 200-109. All railroad cars loaded with explosives shall be promptly unloaded and their contents transported to licensed magazines in vehicles which comply with these regulations. Except during actual unloading such cars shall be securely locked and guarded by a competent person.

Sec. 200-110. There shall be no interstate transportation of explosives into this state except in accordance with the rules and regulations prepared and published by the Interstate Commerce Commission.

New York--Labor Law, Volume 30, McKinney's.

Sec. 457. Transportation.

No person shall load or transport, or cause or permit the loading or transportation of, explosives on any motor or horse-drawn vehicle unless such vehicle, its loading, equipment and the person in charge thereof shall be in compliance with the provisions of this article and the rules of the board. Added L.1949, c. 809, §7, eff. Jan. 1, 1950.

Former section 457 was repealed by L.1949, c. 809, §7, eff. Jan. 1, 1950.

Sec. 458. Licenses and certificates.

1. No person shall purchase, own, possess, transport or use explosives unless a license therefor shall have been issued as herein provided.

Application for such a license shall be made, on forms provided by the commissioner, to the city, town or village clerk where the applicant resides or where the explosives are to be used or stored. The city, town or village clerk, where he finds that the applicant has complied with the requirements of this article and the rules of the board, shall issue a license or renewal thereof, which shall be valid

for one year from the date of issuance. Such application and each renewal thereof shall be accompanied by a fee of twenty-five cents which shall be retained by the city, town or village.

2. No person shall manufacture, deal in, give or dispose of explosives unless a license therefor shall have been issued by the commissioner as herein provided, nor shall any person sell, give or dispose of explosives to, or manufacture explosives for any person who does not hold a license as provided by subdivision one of this section, except that a person licensed as a manufacturer or dealer in explosives may sell, give or dispose of explosives to a non-resident who is duly licensed in the state of his residence and who shall forthwith transport such explosives to the state of his residence. Possession and transportation within this state by such non-residents shall conform to the laws of this state and rules of the board, except that the requirements of subdivision one of this section for a license therefor issued by this state shall not apply.

Application for such a license, which shall be renewed annually, shall be made to the commissioner on forms provided by him and shall contain such information as the commissioner may require. The commissioner after investigation of the application, shall issue a license or renewal thereof, which shall be valid for one year from the date of issuance, where he finds that the applicant has complied with the requirements of this article and the rules of the board. Each application for such a license, or for its renewal, shall be accompanied by a fee of five dollars payable to the commissioner.

3. No person shall keep or store explosives unless a certificate therefor shall have been issued by the commissioner as herein provided, but this requirement shall not apply to the storage at any one time by farmers of two hundred pounds or less of blasting explosives for agricultural purposes.

Application for such a certificate shall be made to the commissioner on forms provided by him and shall contain such information as the commissioner may require. The commissioner, where he finds that the applicant has complied with the requirements of this article and the rules of the board, shall issue a certificate or a renewal thereof, which shall be valid for one year from the date of issuance. In addition to any other causes for revocation of a certificate hereinafter provided, the commissioner may revoke or modify such certificate because of any change in the conditions under which it was granted, or for failure to pay the annual fee hereinafter provided. The owner or user of a magazine shall annually pay to the commissioner in advance a fee, not exceeding twenty-five dollars, which shall be proportioned according to the quantity of explosives authorized by the certificate to be stored in the magazine.

4. Agencies of the United States, the state and its political and civil subdivisions which are subject to the requirements of this article and which, in the exercise of their functions, are required to purchase, own, store, use or transport explosives shall not be liable for the payment of any fee required by this section.

5. No explosives shall be sold, given or delivered to any person under eighteen years of age, whether such person is acting for himself or for another person, nor shall any such person be eligible to obtain any license or certificate required under this section. Added L.1949, c.809, §8, eff. Jan. 1, 1950.

New York—Vehicle and Traffic Code, Section 16-b.

Sec. 16-b. Motor vehicles engaged in the transportation of inflammable liquids.

1. Every driver of a motor vehicle engaged in the transportation of inflammable liquids shall conform at all times to the following provisions relating to the operation of such motor vehicles while carrying inflammable liquids.

2. When truck motors shall not be run. Motors of tank trucks shall not be run while breaking hose connections. When loading or unloading is done without the use of a power pump on the tank truck, the tank motor shall be stopped throughout the operation.

3. Volume of liquid cargo allowed. No cargo tank shall be completely filled. Sufficient space shall be left vacant to allow for expansion of the contents to prevent distortion or leakage. In no case shall the free space be less than one per centum of the capacity of the tank.

4. Operator shall not leave vehicle. The driver, operator or attendant of any tank vehicle shall not leave the vehicle while it is being filled or discharged. The delivery hose, when attached to a tank vehicle shall be deemed a part of the vehicle.

5. For containers which are not in metallic contact with each other, either metallic grounds or ground conductors shall be provided for the neutralization of possible static charges prior to and during transfers of inflammable liquids between such containers. Such bonding shall be made by first connecting an electric conductor to the container to be filled and subsequently connecting the conductor to the container from which the liquid is to come, and not in any other order. To provide against ignition of vapors by discharge of static electricity, the latter connection shall be made at a point well removed from the opening from which the inflammable liquid is to be discharged.

6. Filling pipe. During the filling operation metallic contact shall be maintained between the fill pipe and the tank truck.

7. Smoking during operation. Neither truck drivers nor their helpers shall smoke while they are operating a tank vehicle on a highway or while filling them or making deliveries therefrom or repairs thereto.

8. Operating regulations. Tank vehicles shall not be operated in this state unless they are in good condition.

9. Penalties. The violation of any provision of this section shall be a misdemeanor. Added L.1941, c.794, sec.2, eff. Jan. 1, 1942.

New York--Vehicle and Traffic Code, Sec. 16-c.

Motor Vehicles Engaged in the Transportation of Dangerous Articles.

1. Definitions. "Highways", as used in this section, shall mean and include any public street, alley, road, tunnel, bridge, viaduct, turnpike or parkway.

"Dangerous article", as used in this section, shall mean any flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases, poisonous substances and radioactive materials as hereinafter defined when transported as cargo by motor vehicle on a highway. This section, however, shall not apply to explosives as defined in article sixteen of the labor law, or to flammable liquids transported in tank trucks, tank trailers or tank semi-trailers in accordance with section sixteen-a of the vehicle and traffic law.

"Flammable liquids", as used in this section, shall mean any liquid which gives off flammable vapors (determined by flash point from Tagliabue's open cup tester, as used for test of burning oils) at or below a temperature of eighty degrees Fahrenheit.

"Flammable solids", as used in this section, shall mean any solid substance other than any explosive, as above defined, which is liable, under conditions incident to transportation, to cause fires through friction, through absorption of moisture, through spontaneous chemical changes, or as a result of retained heat from the manufacturing or processing.

"Oxidizing materials", as used in this section, shall mean any substance such as a chlorate, permanganate, peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

"Corrosive liquids", as used in this section, shall mean those acids, alkaline caustic liquids and other corrosive liquids which, when in contact with living tissue will cause severe damage of such tissue by chemical action; or in the case of leakage, will materially damage or destroy other freight by chemical action; or are liable to cause fire when in contact with organic matter or with certain chemicals.

"Compressed gas", as used in this section, shall mean any material or mixture having in the container either an absolute pressure exceeding forty pounds per square inch at seventy degrees Fahrenheit or an absolute pressure exceeding one hundred four pounds per square inch at one hundred thirty degrees Fahrenheit, or both, or any liquid flammable material having a Reid vapor pressure exceeding forty pounds per square inch absolute at one hundred degrees Fahrenheit.

"Poisonous substances", as used in this section, shall mean liquids and gases of such nature that a very small amount of the gas, or vapor of the liquid, mixed with air is dangerous to life; or such liquid, or solid substance as upon contact with fire or when exposed to air gives off dangerously or intensely irritating fumes or substances which are chiefly dangerous by external contact with the body or by being taken internally.

"Radioactive materials", as used in this section, shall mean any material or combination of materials that spontaneously emits ionizing radiation.

2. It shall be unlawful to transport by motor vehicle over the highways within this state any dangerous article in such manner or conditions as will unreasonably endanger the person or property of others.

3. It shall be unlawful to transport by motor vehicle over the highways within this state any dangerous article without conspicuously marking or placarding any motor vehicle engaged in such transportation on each side and on the rear thereof with the word "dangerous" or the common or generic name of the substance transported or its principal hazard; provided, that the commissioner of motor vehicles may, by regulation issued after a public hearing, prescribe with respect to any specific dangerous article the minimum quantities below which no placard shall be required.

4. Nothing in this section contained shall apply to transportation of any dangerous article by rail or by water; nor to transportation of any dangerous article by highway when packed, marked, labeled, or accompanied by shipping papers in conformity with the applicable regulations of the interstate commerce commission and placarded in conformity with the provisions of subdivision three of this section; nor to the regular military or naval forces of the United States, nor to the duly authorized militia of any states or territory thereof, nor to the police or fire departments of this state, or of its counties, cities, towns, villages, agencies or instrumentalities, providing the same are acting within their official capacity and in the performance of their duties.

5. A first violation of any of the provisions of this section shall be a misdemeanor, punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding sixty days, or by both such fine and imprisonment; a second violation shall be a misdemeanor, punishable by a fine of not less than five hundred dollars nor more than one thousand dollars, or by imprisonment not exceeding six months, or both such fine and imprisonment; and any subsequent violation shall be a felony.

6. Any city having a population of one million or more may promulgate or make any rule, regulation, resolution, ordinance or local law, whichever may be appropriate, consistent with and supplemental to the provision of subdivision two and three of this section; provided, that no dangerous article shall be transported by motor vehicle over the highways within the city without conspicuously marking or placarding any motor vehicle engaged in such transportation on each side and on the rear thereof with the word "dangerous" or the common or generic name of the substance transported or its principal hazard, except as prescribed by the commissioner of motor vehicles as provided in subdivision three of this section. Added L.1951, c.651, eff. July 1, 1951.

Pennsylvania—Vehicle Code, Title 75, Section 409,
Furdon's Pennsylvania Statutes Annotated.

Section 409. Transportation of Explosives.

Vehicles when used for transporting explosives over the highways must be marked or placarded on both sides and the rear with the word "Explosives", in letters not less than three (3) inches high, or conspicuously display on the rear of the vehicle a red flag not less than twenty-four (24) inches square, marked with the word "Danger" in white letters six inches high.

Penalty.—Any person violating any of the provisions of this section, shall, upon summary conviction before a magistrate, be sentenced to pay a fine of twenty-five (\$25) dollars and costs of prosecution, and, in default of the payment thereof, shall undergo imprisonment for not more than five days.

-----Penal Code of 1939, Title 18, Sections 4660 and 4661.

Section 4660. Carrying explosives on trains.

Whoever enters into or upon any railroad train, locomotive, tender or car thereof, or into or upon any automobile or other conveyance used for the carrying of freight or passengers, having in his custody or about his person any nitro-glycerine or torpedo, other than as freight regularly shipped as such, is guilty of a misdemeanor, and upon conviction thereof, shall be sentenced to pay a fine not exceeding one (1) year, or both.

five hundred dollars (\$500), or to undergo imprisonment not exceeding

The conductor or person having charge and control of any railroad train, coach, or other conveyance for the carriage of freight or passengers, may arrest any person found violating the provisions of this section and detain such person until reaching some place, where such person may be delivered to a constable or other police authority.

It shall be unlawful to prosecute such offenders in any county through which said public conveyance passes, without reference to the place where such offenders were arrested.

Section 4661.

Whoever knowingly delivers, causes to be delivered to any transportation company, or to any person engaged in the business of transportation, any explosive material adapted for blasting, or for any other purpose for which such articles may be used, under any false or deceptive invoice or description, or without informing the carrier at or before the time when such delivery is made, of the true nature of the same, and without having the keg, barrel, can or package containing the same plainly marked with the name of the explosive material therein contained, together with the word "dangerous" article, is guilty of a misdemeanor, and upon conviction thereof,

shall be sentenced to imprisonment not exceeding one (1) year and to pay a fine not exceeding five hundred dollars (\$500), and shall be responsible for all damages to persons or property directly or indirectly resulting from the explosion of any such article.

Any person engaged in the business of transportation, upon affidavit made of the fact that any container tendered for transportation, not in compliance with the provisions of this section is believed to contain explosive material, may require such container to be opened, and refuse to receive any such container unless such requirement is complied with. If such container is opened and found to contain any explosive material, the container and its contents shall be forthwith removed to any lawful place for the storing of explosives. After the conviction of the offender, or after three (3) months from such removal, the container, with its contents, shall be sold at public sale, after the expiration of ten (10) days from the notice of the time and place of such sale, published in one newspaper in the county where such seizure shall have been made. The proceeds of such sale, after deducting therefrom the expenses of removal, storage, advertisement and sale shall, be paid into the treasury of the county.

Pennsylvania--Vehicle Code, Title 75, Section 715, Purdon's
Anno. Statutes.

Section 715 Uniform Law for Transportation of Dangerous
Articles by Motor Vehicle

(a) Definitions as used in this section:

(1) "Highway" shall mean and include any public street, alley, road, tunnel, bridge, viaduct, turnpike or parkway.

(2) "Dangerous article" shall mean any flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases, poisonous substances and radioactive materials as hereinafter defined when transported as cargo by motor vehicle on a highway. This Section, however, shall not apply to explosives as defined in the act approved the first day of July one thousand nine hundred thirty-seven (Pamphlet Laws 2681), entitled "An act relating to and regulating the manufacture, storing and possession of explosives, requiring permits for magazines and prescribing permit fees and providing penalties" or to flammable liquids transported in tank trucks, tank trailers or tank semi-trailers in accordance with any other provision of this act.

(3) "Flammable liquids" shall mean any liquid which gives off flammable vapors (as determined by flash point from Tagliabue's open cup tester as used for test of burning oils) at or below a temperature of 80 degrees F.

(4) "Flammable solids" shall mean any solid substance other than an explosive as above defined which is liable under conditions incident to transportation to cause fires through friction through absorption of moisture, through spontaneous chemical changes or as a result of retained heat from the manufacturing or processing.

(5) "Oxidizing materials" shall mean any substance such as a chlorate permanganate peroxide or a nitrate that yields oxygen readily to stimulate the combustion of organic matter.

(6) "Corrosive liquids" shall mean those acids, alkaline, caustic liquids and other corrosive liquids which when in contact with living tissue will cause severe damage of such tissue by chemical action or in case of leakage will materially damage or destroy other freight by chemical action or are liable to cause fire when in contact with organic matter or with certain chemicals.

(7) "Compressed gas" shall mean any material or mixture having in the container either an absolute pressure exceeding forty (40) pounds per square inch at seventy (70) degrees F. or an absolute pressure exceeding one hundred four (104) pounds per square inch at one hundred thirty (130) degrees F., or both, or any liquid flammable material having a Reid vapor pressure exceeding forty (40) pounds per

square inch absolute at one hundred (100) degrees F.

(8) "Poisonous substances" shall mean liquids and gases of such nature that a very small amount of the gas or vapor of the liquid mixed with air is dangerous to life or such liquid or solid substance as upon contact with fire or when exposed to air give off dangerous or intensely irritating fumes or substances which are chiefly dangerous by external contact with the body or by being taken internally.

(9) "Radioactive materials" shall mean any material or combination of materials that spontaneously emits ionizing radiation.

(b) It shall be unlawful to transport by motor vehicle over the highways within this State any dangerous article in such manner or conditions as will unreasonably endanger the person or property of others.

(c) It shall be unlawful to transport by motor vehicle over the highways within this State any dangerous article without conspicuously marking or placarding any motor vehicle engaged in such transportation on each side and on the rear thereof with the word "Dangerous" or the common or generic name of the substance transported or its principal hazard provided that the secretary may by regulation issued, after a public hearing, prescribe with respect to any specific dangerous article the minimum quantities below which no placard shall be required.

(d) Nothing in this section shall apply to shipment or transportation of any dangerous article by rail or by water nor to shipment or transportation of any dangerous article by highway when packed marked labeled placarded or accompanied by shipping papers in conformity with the applicable regulations of the Interstate Commerce Commission or exempt from specification packaging, marking, labeling or placarding requirements thereunder nor to the regular military or naval forces of the United States nor to the duly authorized militia or any state or territory thereof nor to the police or fire departments of this State or of its counties, cities, boroughs, towns, townships, agencies or instrumentalities, providing the same are acting within their official capacity and in the performance of their duties.

(e) Any violation of any provision of this section which results in death or injury to any person or damage to property in excess of the value of five thousand dollars (\$5,000) shall in addition to any other liability imposed by law constitute a felony.

(f) Except as provided in subsection (e) of this section any violation of this section shall be a misdemeanor and be punishable for a first violation by a fine not exceeding five hundred dollars (\$500) or by imprisonment not exceeding sixty (60) days or both such fine and imprisonment, and for a subsequent violation by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment not exceeding six (6) months, or by both such fine and imprisonment.

(g) This section shall be liberally construed and shall be so interpreted, construed and administered as to make uniform the law of those states which enact it.

(h) The provisions of this section shall become effective thirty days after the effective date of this act.

Provisions Relating to the Transportation of Dangerous Commodities in Wisconsin.

59.23 (10) Duty of sheriff to enforce all general orders of the Industrial Commission, relating to the sale, transportation and storage of explosives.

59.47 (10) Duty of District Attorney to enforce general orders of the Industrial Commission, relating to sale, transportation and storage of explosives.

85.45 (5) Deals with conditions for transporting inflammable liquids.

85.92 relates to trucks carrying inflammable liquids stopping at railroad crossings.

340.64 Locked car provision.

340.73 Criminal statute regarding sale and transportation of explosives for unlawful purpose.

Order 662--Transportation of Explosives (Industrial Commission)

Motor trucks and (or) vehicles when used for transporting explosives, shall be marked or placarded on both sides and the rear with the words "Explosives--Dangerous" in letters not less than three inches high, or shall conspicuously display a red flag not less than twenty-four inches square marked with the word "Danger" in white letters not less than six inches high.

Vehicles transporting explosives shall be handled in a safe and careful manner and no person while smoking or under the influence of intoxicating liquor shall ride upon, drive, load or unload a vehicle carrying explosives.

No tools, blasting caps, matches, or other flame producing materials shall be carried in a vehicle containing explosives excepting tools for the operation and repair of such vehicle.

No stops except unavoidable stops shall be made during the journey and the speed of the vehicle shall not exceed 35 miles per hour.

Exposed metal parts in the interior of vehicles used to transport explosives shall be insulated from the explosives with wood, blankets or other fibrous material.

Explosives shall not be transported in any form of trailer, nor shall any trailer be attached to a motor truck or vehicle hauling explosives.

(Effective March 27, 1933)

Resolution introduced by Ald. Choinski in the Milwaukee City Council. (Late, 1951)

"Any vehicle when used for transporting explosives shall be marked or placarded on both sides and the rear with the words 'EXPLOSIVES--DANGEROUS' in letters not less than three (3) inches high. When transporting explosives within the city such vehicle shall make no stops, except for delivery and stops required by law, and the speed of the vehicle shall not exceed twenty-five (25) miles per hour.

Except in cases of emergency as determined by the chief or the chief of the bureau, all explosives shall be transported through the street of the city between the hours of twelve (12) p.m. and six (6) a.m. and not more than five hundred (500) pounds shall be transported at one time. The chief or chief of the bureau may designate the route to be traveled."