

DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK DIVISION

TRANSPORTATION OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

(By authority conferred on the state fire safety board by section 3c of Act No. 207 of the Public Acts of 1941, as amended, and by section 722 of Act No. 300 of the Public Acts of 1949, as amended, being SS29.3c and 257.722 of the Michigan Compiled Laws)

R 29.2201 Definitions.

Rule 1. As used in these rules:

(a) "Act" means Act No. 207 of the Public Acts of 1941, as amended, being SS29.1 et seq. of the Michigan Compiled Laws.

(b) "Board" means the state fire safety board created in section 3b of the act.

History: 1983 AACS.

R 29.2203 Rescission.

Rule 3. R 28.601 to R 28.740 of the Michigan Administrative Code, appearing on pages 76, 77, and 80 to 136 of the 1979 Michigan Administrative Code, and pages 9 to 11 of the 1981 Annual Supplement to the 1979 Michigan Administrative Code, are rescinded.

History: 1983 AACS.

R 29.2205 Standard for portable shipping tanks for flammable and combustible liquids; adoption by reference.

Rule 5. The provisions of the national fire protection association pamphlet no. 386, 1979, entitled "Standard for Portable Shipping Tanks for Flammable and Combustible Liquids," are incorporated by reference and adopted as part of these rules. Copies of the adopted standard are available for inspection and distribution either at the office of the State Fire Safety Board, Fire Marshal Division, 7150 Harris Drive, Lansing, Michigan 48913, or from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269. The cost as of the time of adoption is \$7.00 per copy.

History: 1983 AACS.

R 29.2221 Standard for tank vehicles for flammable and combustible liquids; adoption by reference.

Rule 21. The provisions of the national fire protection association pamphlet no. 385, 1979, entitled "Standard for Tank Vehicles for Flammable and Combustible Liquids," are incorporated by reference and adopted as part of these rules. Copies of the adopted code are available for inspection and distribution either at the office of the State Fire Safety Board, Fire Marshal Division, 7150 Harris Drive, Lansing, Michigan 48913, or from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269. The cost as of the time of adoption is \$7.50 per copy.

History: 1983 AACS.

AMENDMENTS TO STANDARD FOR TANK VEHICLES FOR FLAMMABLE
AND COMBUSTIBLE LIQUIDS

R 29.2222 Table of contents.

Rule 22. Chapter 7 is added to the table of contents to read as follows: Chapter 7. Special equipment.

7-1 Truck tractor pulling a semitrailer and trailer combination, truck pulling a trailer, flash point at or below 70 degrees.

7-2 Flash point above 70 and below 200 degrees.

7-3 Vehicle device, approval criteria prior to installation.

7-4 Approved device, identification, notice of installation.

7-5 Transportation, time, place, quantity.

7-6 Transportation, routes.

History: 1983 AACS.

R 29.2224 Definitions.

Rule 24. Section 1-2 is amended by amending the definitions of "tank full-trailer," "tank semitrailer," and "tank vehicle" and adding definitions of "approved," "supply depot," "truck," "truck tractor," and "vehicle" as follows:

1-2. Definitions.

(a) "Approved" means acceptable to the state fire marshal.

(b) "Supply depot" means that portion of a property where a flammable liquid is received by marine vessel, pipeline, railroad car, or tank vehicle and is stored or blended in bulk for the purpose of distributing the liquid by marine vessel, pipeline, railroad car, or tank vehicle.

(c) "Tank full-trailer" or "trailer" means any vehicle with or without auxiliary motive power which is equipped with a cargo tank mounted thereon or built as an integral part thereof, which is used for the transportation of flammable and combustible liquids or asphalt, and which is so constructed that practically all of its weight and load rests on its own wheels.

(d) "Tank semitrailer" or "semitrailer" means any vehicle with or without auxiliary motive power which is equipped with a cargo tank mounted thereon or built as an integral part thereof, which is used for the transportation of flammable and combustible liquids or asphalt, and which is so constructed that, when drawn by a tractor by means of a fifth wheel connection, some part of its load and weight rests upon the towing vehicle.

(e) "Tank vehicle" means any tank truck, trailer, tank full-trailer, tank semitrailer, or combination of tank trucks, tank trailers, and tank semitrailers.

(f) "Truck" means a motor vehicle designed, used, or maintained primarily for the transportation of property.

(g) "Truck tractor" means a motor vehicle which is designed and used primarily for drawing other vehicles and which is not constructed to carry a load other than a part of the weight of the vehicle and load so drawn.

(h) "Vehicle" means a device in, on, or by which any person or property is or may be transported or drawn upon a highway, except for devices exclusively moved by human power or used exclusively on stationary rails or tracks.

History: 1983 AACS.

R 29.2226 Exhaust systems.

Rule 26. Section 2-9 is added to read as follows:

2-9. Exhaust systems. The exhaust system, including muffler and exhaust line, shall have ample clearance from the fuel system and combustible materials and shall not be exposed to leakage or spillage of product or accumulation of grease, oil, or gasoline.

History: 1983 AACS.

R 29.2228 General operating conditions.

Rule 28. Sections 6-1.1.1, 6-1.1.2, 6-1.1.3, and 6-1.1.4 are added to read as follows:

6-1.1.1. A person shall not operate a tank vehicle transporting flammable or combustible liquids upon the public highways unless he or she is in compliance with the driver qualifications and standards as required by the public service commission.

6-1.1.2. A person shall not operate a tank vehicle transporting flammable or combustible liquids upon the public highways unless he or she is thoroughly trained in the hazards related to the product being transported and trained in the functional operation of all the fire safety equipment and devices on the tank vehicle.

6-1.1.3. A person driving a tank vehicle transporting a flammable or combustible liquid for hire shall possess a telephone number or a list of telephone numbers through which persons responsible for handling emergency situations may be contacted.

6-1.1.4. The driver of a tank vehicle transporting flammable or combustible liquids upon the public highways shall have in his or her possession a bill of lading or other document identifying the product or products being transported.

History: 1983 AACCS.

R 29.2230 Loading and unloading tank vehicles.

Rule 30. Sections 6-2.1.1, 6-2.1.2, 6-2.1.3, 6-2.1.4, 6-2.2.1, and 6-2.2.2 are added and sections 6-2.5 and 6-2.12 are amended to read as follows:

6-2.1.1. No class I liquid shall be transferred from tank vehicles to containers on any highway, road, street, or alley.

6-2.1.2. No class I liquid shall be transferred from tank vehicles to the fuel tanks of motor vehicles or marine craft at any location.

6-2.1.3. No class I liquid shall be transferred from one tank vehicle to another tank vehicle at any location.

6-2.1.4. The above prohibited deliveries are subject to the following specific exceptions:

(a) In case of emergency, if all practicable means are taken to protect and warn against the hazards involved in such transfer or the emergency making such transfer necessary.

(b) Fueling machinery or vehicles on premises not open to the public or for road construction and maintenance at the site of use. The local fire department shall be notified and this exception may be subject to approval by the state fire marshal.

(c) Fueling emergency vehicles.

(d) Fueling operations for special events following notification of the local fire department.

(e) Transfer from one tank vehicle to another tank vehicle at a bulk plant.

6-2.2.1. The driver, operator, or attendant of a tank vehicle shall not be inside any other vehicle or enclosure during the loading or unloading of the cargo of the tank vehicle of which he or she is the driver, operator, or attendant.

6-2.2.2. The driver, operator, or attendant of a tank vehicle shall supervise, observe, and control the loading or unloading of the cargo of the tank vehicle on which he or she is the driver, operator, or attendant and shall remain in the immediate vicinity, and have an unobstructed view, of the tank vehicle, the delivery hose, and the loading or unloading point.

6-2.5. No cargo tank or compartment thereof used for the transportation of any flammable or combustible liquid or asphalt shall be loaded liquid full. Sufficient space (outage) shall be provided in every case to prevent leakage from such tank or compartment by expansion of the contents due to rise in temperature during transit. Sufficient space is not less than 1%. The overflowing of a tank due to liquid expansion shall be prima facie evidence that sufficient outage was not provided.

6-2.12. When a cargo tank is filled through a top opening, the cargo tank shall be bonded to the fill stem or some part of the rack structure which is electrically interconnected with the fill stem piping, except as follows:

(a) Exception no. 1: When loading asphalt or a product containing substantial proportions of crude residuum.

(b) Exception no. 2: When tank vehicles used exclusively for transporting class II and class III liquids are loaded at locations where no class I liquids are handled.

History: 1983 AACS.

R 29.2232 Fire extinguishers.

Rule 32. Section 6-3.1 is amended to read as follows:

6-3.1. Each tank vehicle shall be provided with at least 1 portable fire extinguisher having at least a 20-B,C rating or, when more than 1 extinguisher is provided, each extinguisher shall have at least a 10-B,C rating. Each tank vehicle manufactured after the effective date of these rules shall be provided with at least 1 portable fire extinguisher having at least a 2-A,20-B,C rating. Also, all replacement fire extinguishers shall have a rating of at least 2-A,20-B,C. Ratings shall be in accordance with the national fire protection association pamphlet no. 10, 1981, entitled "Standard For Portable Fire Extinguishers."

History: 1983 AACS.

R 29.2234 Special equipment.

Rule 34. Chapter 7 is added to read as follows:

7-1. Transportation; truck tractor pulling a semitrailer and trailer combination; truck pulling a trailer; flash point at or below 70 degrees Fahrenheit; vehicle requirements.

7-1.1. Notwithstanding 7-5.1, a truck tractor pulling a semitrailer and trailer combination or a truck pulling a trailer shall not transport a flammable liquid, in bulk, which has a flash point at or below 70 degrees Fahrenheit, within this state, unless the truck tractor, semitrailer, and trailer combination or truck and trailer combination meets the following requirements:

(a) Is equipped with a device which restricts the horizontal and vertical rotation of the dolly assemblage of the vehicle combination in a manner which maintains the longitudinal tracking of the dolly and semitrailer.

(b) Is equipped with stops in the spring hangers of each semitrailer and trailer in the vehicle combination in a manner which improves the stability of the vehicle combination by reducing the free play of the leaf spring suspension to a maximum of 3/4 inch when the spring passes from tension to compression.

7-1.2. The device described in 7-1.1(b) shall be welded to the vehicle. The welds shall be in accordance with recognized good practice, and the efficiency of a weld shall not be less than 85% of the mechanical properties of the adjacent metal in the chassis.

7-1.3. Section 7-1 shall expire on November 1, 1990.

7-2. Transportation; flash point above 70 and below 200 degrees Fahrenheit; vehicle requirements.

7-2.1. A truck tractor pulling a semitrailer and trailer combination or a truck pulling a trailer shall not transport a flammable liquid which has a flash point above 70 degrees Fahrenheit or a combustible liquid which has a flash point below 200 degrees, in bulk, after November 1, 1981, unless the truck tractor, semitrailer, and trailer combination or truck and trailer combination meets the following requirements:

(a) Is equipped with a device which restricts the horizontal and vertical rotation of the dolly assemblage of the vehicle combination in a manner which maintains the longitudinal tracking of the dolly and semitrailer in a truck tractor, semitrailer, and trailer combination or the dolly and the truck in a truck and trailer combination.

(b) Is equipped with stops in the spring hangers of each semitrailer and trailer in the vehicle combination in a manner which improves the stability of the vehicle combination by reducing the free play of the leaf spring suspension to a maximum of 3/4 inch when the spring passes from tension to compression.

7-2.2. The device described in 7-2.1(a) shall be welded to the vehicle. The welds shall be in accordance with recognized good practice, and the efficiency of a weld shall not be less than 85% of the mechanical properties of the adjacent metal in the chassis.

7-3. Vehicle device; approval criteria prior to installation.

7-3.1. Before a device manufactured to be installed on a vehicle combination described in 7-1.1 or 7-2.1 is installed, the manufacturer of the device shall submit the plans and specifications of the device to the state fire marshal. If the device is approved in writing by the state fire marshal, the device may be installed on a vehicle combination.

7-4. Approved device; manufacturer identification; notice of installation.

7-4.1. A manufacturer of a device approved under 7-3 shall affix to the device a means of permanent identification, either by means of a stamp or an identification plate. The stamp or identification plate shall identify the manufacturer's name and a number designated by the manufacturer to distinguish the device from all other devices the manufacturer produces.

7-4.2. If the manufacturer of a device approved under 7-3 installs the device on a vehicle combination described in 7-1 or 7-2, the manufacturer shall forward to the state fire marshal a notice of the installation. The notice shall include all of the following information:

- (a) The name of the manufacturer of the device.
- (b) The number designated for the device by the manufacturer under 7-4.1.
- (c) The date of the installation of the device.
- (d) The name of the owner of each of the vehicles in the vehicle combination on which the device was installed.

7-4.3. If a person other than the manufacturer of the device installs a device approved under 7-3 on a vehicle combination described in 7-1 or 7-2, the person shall forward to the state fire marshal a notice of the installation. The notice shall include all of the following information:

- (a) The name of the manufacturer of the device.
- (b) The number designated for the device by the manufacturer under 7-4.1.
- (c) The date of the installation of the device.
- (d) The name of the owner of each of the vehicles in the vehicle combination on which the device was installed.
- (e) A statement by the installer that the installation of the device was in accordance with the manufacturer's plans and specifications of the device submitted to the state fire marshal under 7-3.

7-5. Transportation; time; place; quantity.

7-5.1. A truck tractor pulling a semitrailer and trailer combination or a truck tractor pulling 2 semitrailers shall not transport, except between the hours of 12 midnight to 6 a.m. and on the routes specified in 7-6, a flammable liquid, in bulk, which has a flash point at or below 70 degrees Fahrenheit, within a county having a population of 600,000 or more.

7-5.2. A truck, a truck pulling a trailer, or a truck tractor pulling a semitrailer shall not transport, except between the hours of 12 midnight to 6 a.m. and on the routes specified in 7-6, a flammable liquid, in bulk, which has a flash point at or below 70 degrees Fahrenheit, in a quantity of more than 9,000 gallons, within a county having a population of 600,000 or more.

7-5.3. The vehicles and vehicle combinations specified in 7-5.1 and 7-5.2 may transport the flammable liquids described in those sections only for the purposes of picking up or delivering those flammable liquids at a supply depot located on a route specified in 7-6.

7-5.4. Section 7-5 shall expire on November 1, 1990.

7-6. Transportation; routes.

7-6.1. The following routes are the only routes on which the flammable liquids described in 7-5 may be transported by the vehicles specified in 7-5:

(a) The following highways located within Macomb, Oakland, and Wayne counties are designated routes, except for those portions on which the transportation of a flammable liquid which has a flash point at or below 70 degrees Fahrenheit is prohibited by law effective on August 1, 1978:

- (i) Interstate 75.
- (ii) Interstate 94.
- (iii) Interstate 96.
- (iv) Interstate 275.
- (v) Interstate 375.
- (vi) Interstate 696.
- (vii) U.S. 10.
- (viii) M-39.
- (ix) M-59.
- (x) Davison expressway.

(b) The exit and entrance ramps of interstate 94 at the Middlebelt road interchange, then south on Middlebelt road to Wick road, and then east to the supply depots located at 28432 Wick road or 29120 Wick road.

(c) The exit and entrance ramps of interstate 75 at the Holbrook avenue interchange, then east on Holbrook avenue to the supply depot located at 3884 Holbrook avenue.

(d) The exit and entrance ramps of interstate 94 at the Wyoming avenue interchange, then north on Wyoming avenue to Ford road, and then west to the supply depot located at 10500 Ford road.

(e) The exit and entrance ramps of interstate 275 at the Schaefer road interchange, then southeast on Schaefer road to Jefferson avenue, then north to Marion, and then east to the supply depot located at 210 Marion.

(f) The exit and entrance ramps of interstate 75 at the Schaefer highway interchange, then north on Schaefer road to Oakwood boulevard, then west on Oakwood boulevard to south Dix avenue, and then north to the supply depot located at 500 south Dix avenue.

(g) The exit and entrance ramps of interstate 94 at the Oakwood boulevard interchange, then east on Oakwood boulevard to south Dix avenue, then north to the supply depot located at 500 south Dix avenue.

(h) The exit and entrance ramps of interstate 94 at the Ecorse road interchange, then west on Ecorse road to Inkster road, then south on Inkster road to Citrin drive, and then west to the supply depot located at 28001 Citrin drive.

(i) The exit and entrance ramps of interstate 94 at the Ecorse road interchange, then west on Ecorse road to Inkster road, and then south to the supply depots located at 7155 Inkster road or 8625 Inkster road.

(j) The exit and entrance ramps of interstate 94 at the Ecorse road interchange, then east on Ecorse road to Holland road, and then south to the supply depot located at 7965 Holland road.

(k) The exit and entrance ramps of interstate 75 at the West road interchange, and then east to the supply depot located at 20089 West road.

(l) The exit and entrance ramps of interstate 94 at the Ecorse road interchange, then east on Ecorse road to south Beech-Daly road, and then south to the supply depot located at 8000 south Beech-Daly road or 8300 south Beech-Daly road.

(m) The exit and entrance ramps of interstate 94 at the Ecorse road interchange, then east to the supply depots located at 22970 Ecorse road, 24501 Ecorse road, or 24801 Ecorse road.

(n) The exit and entrance ramps of interstate 94 at the Wyoming avenue interchange, and then north to the supply depot at 6011 Wyoming avenue.

(o) The exit and entrance ramps of interstate 94 at the Dequindre road interchange, then south on Dequindre road to Commor street, and then west to the supply depot located at 1530 Commor street.

(p) The exit and entrance ramps of interstate 96 at the Novi road interchange, then south on Novi road to Grand River avenue, and then east to the supply depot located at 40600 Grand River avenue.

(q) On 32-mile road from the St. Clair-Macomb county line west to the supply depots located at 37530 32-mile road or 37401 32-mile road.

(r) The exit and entrance ramps of interstate 75 at the Schaefer road interchange, then southeast on Schaefer road to Fort street, then northeast on Fort street to Toronto avenue, and then west to the supply depot located at 12800 Toronto avenue.

(s) The exit and entrance ramps of interstate 75 at the Fort street interchange, then northeast on Fort street to Toronto avenue, and then west to the supply depot located at 12800 Toronto avenue.

(t) The exit and entrance ramps of interstate 94 at the M-19 interchange, then north on M-19 to 32-mile road, and then east on 32-mile road to the supply depots located at 37401 32-mile road and 37530 32-mile road.

(u) The exit and entrance ramps of interstate 75 at the Schaefer road interchange, then southeast on Schaefer road to Fort street, then northeast on Fort street to Pleasant street, then southeast to Deacon street, and then northeast to the supply depot located at 700 south Deacon street.

(v) The exit and entrance ramps of interstate 94 at the Schaefer road interchange, then southeast on Schaefer road to Fort street, then northeast on Fort street to Pleasant street, then southeast to Deacon street, and then northeast to the supply depot located at 700 south Deacon street.

(w) The exit and entrance ramps of interstate 94 at the 26-mile road interchange, then east on 26-mile road to the Macomb-St. Clair county line.

(x) On M-19 south from the Macomb-St. Clair county line to 32-mile road, and then east on 32-mile road to the supply depots located at 37401 32-mile road or 37530 32-mile road.

(y) The exit ramps of westbound interstate 94 at the Addison street exit, then north on Addison street to McGraw avenue, then west on McGraw avenue to Wyoming avenue, and then north on Wyoming avenue to the supply depot located at 6011 Wyoming avenue.

(z) From the supply depot located at 6011 Wyoming avenue, then south to McGraw avenue, then east on McGraw avenue to Weir, and then south to the entrance ramp to eastbound interstate 94.

(aa) The exit ramp of interstate 75 at the Schaefer road interchange, then southeast on Schaefer road to Fort street, then southwest on Fort street to the turning loop at northeastbound Fort street, then northeast on Fort street to the turning loop at Northampton, then southwest on Fort street to Toronto avenue, and then northwest on Toronto avenue to 12800 Toronto avenue.

(bb) From 12800 Toronto avenue, then southeast to Fort street, then southwest on Fort street to the turning loop to northeastbound Fort street, and then northeast on Fort street to the entrance ramp to interstate 75.

(cc) The exit and entrance ramps of interstate 94 at the Middlebelt interchange, then south to Wick road, then east to Beech-Daly road, and then north on Beech-Daly road to the supply depot located at 3800 Beech-Daly road and 8000 Beech-Daly road.

(dd) The exit and entrance ramps of interstate 75 at M-24 in Oakland county, and then north on M-24 to the Oakland-Lapeer county line.

(ee) The exit and entrance ramps of interstate 94 at M-19, and then north on M-19 to the Macomb-St. Clair county line.

(ff) The exit and entrance ramps of interstate 94 at the 21-mile road interchange, then east on 21-mile road to Jefferson avenue, and then south on Jefferson avenue to the supply depot located at Selfridge air force base.

History: 1986 AACS.