

Regulations of Connecticut State Agencies

TITLE 14. Motor Vehicles. Use of the Highway by Vehicles. Gasoline

Agency

Department of Motor Vehicles

Subject

High-Mileage Vehicles

Inclusive Sections

§§ 14-103b-1—14-103b-5

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High-Mileage Vehicles

Sec. 14-103b-1. Definition

“High-Mileage Vehicle” means a “High-Mileage Vehicle” as defined in subdivision (66) of section 14-1 of the Connecticut General Statutes.

(Effective December 29, 1982)

Sec. 14-103b-2. Performance requirements

(a) **Energy efficiency.**

(1) Each high-mileage vehicle powered by a gasoline or diesel fuel driven engine shall perform with a fuel efficiency no less than 70 miles per gallon of fuel consumed while operating on a level roadway, loaded with 150 pounds of weight in all designated seating positions while maintaining a forward speed of not less than 35 miles per hour.

(2) Each high-mileage vehicle powered by an electric powered motor(s) shall be capable of operating at a speed of 35 miles per hour on a level roadway with the electrical supply source delivering no greater than 14.4 kilowatts with the vehicle loaded with 150 pounds of weight in each designated seating position.

(b) **Range.** Each high-mileage vehicle shall be capable of operating over a distance of twenty miles minimum at a speed equal to or greater than 35 miles per hour on a level roadway when loaded with 150 pounds at each designated seating position without replenishing the on-board energy source.

(c) **Acceleration.** The time required to accelerate from rest to 31 miles per hour (50 kilometers per hour) shall not exceed 13.5 seconds.

(d) **Gradeability at speed.** The grade which can be traversed up at 15.5 miles per hour (25 kilometers per hour) shall be at least 10 percent (5.7°).

(e) **Gradeability limit.** The grade on which the vehicle can start and climb for 20 seconds both backward and forward shall be no less than 20 percent (11.3°).

(f) **Forward speed capability.** The speed which can be maintained for 5 minutes shall be 40.0 miles per hour (64.4 kilometers per hour).

(g) **Battery recharge time.** Electric powered vehicles shall be capable of satisfying the range requirement above, after being recharged for no more than 10 hours by use of an on-board charger. The on-board charger shall be compatible with an electric power outlet of 110 V. or 220 V. AC, as specified by the vehicle manufacturer.

(h) **Recharge control.** Electric powered vehicles shall have an automatic recharge control which will meet the requirements of energy, life and safety as such requirements are stated by these performance standards. This applies when the on-board chargers are used and also when off-board chargers supplied by or specified by the vehicle manufacturer for recharge of the vehicle are used.

(Effective December 29, 1982)

Sec. 14-103b-3. Safety requirements for high mileage vehicles

- (a) Minimum nominal wheel rim diameter of not less than ten inches (254 mm).
- (b) Minimum wheelbase shall be 65 inches (1651 mm).
- (c) Vehicle underbody structure and attached components shall be no less than 4 inches above a level road surface with tires inflated.
- (d) The overall height of the vehicle including the occupant enclosure shall be no less than 48 inches (1219 mm).

(Effective December 29, 1982)

Sec. 14-103b-4. Safety and equipment requirements

- (a) The vehicle shall have at least two opening areas allowing occupant egress each located on a different surface defined as side, back, front or top having a minimum 16 inches by 24 inches rectangular opening or an equivalent oval area having a minimum 16 inches wide opening.
- (b) All equipment and equipment performance requirements including but not limited to controls, lighting, brakes, brake performance and instrumentation for passenger cars in the General Statutes of Connecticut and regulations shall apply.

(Effective December 29, 1982)

Sec. 14-103b-5. Safety requirements for electric powered high mileage vehicles

- (a) The electric propulsion circuit shall be electrically isolated from other conductive portions of the vehicle sufficiently to prevent personal hazards due to contacting any portion of the electric propulsion circuit while in contact with other portions of the vehicle.
- (b) The vehicle shall be capable of complying with the performance requirements of Federal Motor Vehicle Safety Standards 208 and 301 with all battery materials remaining outside the passenger compartment.
- (c) Vehicles with battery vents shall have flame barrier provisions to inhibit battery explosions.
- (d) Ventilation shall be adequate within the battery compartment to maintain the concentration of hydrogen below 4 percent by volume during vehicle operation (including charging and maintenance).
- (e) The vehicle shall have a state-of-charge meter for the propulsion battery system or other means of providing an indication of remaining range.
- (f) The vehicle shall have a device which provides for the positive disconnection of the battery and which is operable from the normal operator position.
- (g) The vehicle shall be capable of being parked for up to 8 hours in temperatures of -13°F to 122°F (-25°C to 50°C) and subsequently operated, by moving forward under its own power, at any temperature within this temperature range without damage to the vehicle or hazard to persons.

(Effective December 29, 1982)