United States of America Request to List Regulations in The Compendium of Candidates Lamps, reflective devices and associated equipment


Background

In 1968, in response to Congressional initiatives, Federal Motor Vehicle Safety Standard No. 108, "Lamps, reflective devices, and associated equipment," (FMVSS No. 108) was established to set, on a national basis, the minimum requirements necessary for motor vehicle safety. Congress determined that the best first step of this action should be the codification of the existing performance levels in industry consensus standards. These were mostly standards and recommended practices written by motor vehicle and motor vehicle lighting engineers under the auspices of the Society of Automotive Engineers. Those standards had evolved since the beginning of motor vehicle lighting, and thus in 1968, were established as national law for motor vehicle lighting and its installation.

As the responsible U.S. Executive Branch agency, the National Highway Traffic Safety Administration, exercised its new authority, it sought to justify and improve safety value of automotive lighting. It initially studied side marker lamps, then only recently adopted by U.S. Market vehicle manufacturers in 1967. The results of that study showed that side marker lamps on the sides of vehicles were cost. It also began to study performance enhancements of stop lamps, and the improvement of the visibility of large commercial vehicles at night. Both were deemed effective, achieving greater value then they cost. This lead to the requirement that these be mandatory devices to be used in conjunction with all other required lamps.

As the agency grew and matured, so did its Standards, in attempt to keep performance in the face of ever-changing technology lighting.

Description of the Regulation

The regulation prescribes the photometric, material, environmental, locational and operational performance of all the lighting devices deemed the minimum necessary for reducing the risk of motor vehicle crashes. It applies to all motor vehicles, motorcycles, and trailers. It requires headlighting systems, park, tail, stop, turn, side marker, license plate and backup lamps. It also requires side and rear reflex reflectors. For wider, longer vehicles, it also requires front and rear clearance, and front and rear identification lamps, and for trailers and truck tractors, too, retro-reflective conspicuity treatments.

The regulation has been upgraded dozens of times, to incorporate newer performance criteria, to accommodate newer lighting technology, and to harmonized with other regulations around the World.