

reserve requirements with the loading parameter in the high-speed test.

For passenger cars and for non-passenger car vehicles equipped with LT tires, the final rule requires that the vehicle normal load be based on 94% of load rating at the vehicle's placard pressure. Therefore, vehicle manufacturers will be required to insure that the tire reserve load corresponds with the tire's load carrying capabilities when the tire is inflated to the vehicle manufacturers recommended cold tire inflation pressure rather than the tire manufacturer's maximum cold inflation pressure shown on the tire sidewall. The 94% figure was chosen to approximate closely the load reserve that results from the current requirement of 88% based of load rating at the tire's maximum inflation pressure.

By specifying an 94% value based on vehicle normal load, the agency is addressing the vehicle industry's concerns that a significant number of vehicles would otherwise need to be redesigned to accommodate larger tire sizes, while aiming to reflect more accurately actual vehicle loading conditions of vehicles by requiring that each vehicle manufacturer select the appropriate reserve load for that vehicle. The agency has recently conducted a FMVSS No. 110 vehicle normal load evaluation and has concluded that almost all light vehicles could meet a revised criteria for load reserve based on 94% of placard pressure with only a minor increase, e.g., 1 or 2 psi, in this listed inflation pressure to accommodate the new requirement. Because 1 or 2 psi does not have a meaningful effect on the ride, comfort and, consequently, the marketability of a vehicle, this provision should impose little or no cost on the industry.

For the final rule, the agency has also decided to retain the de-rating factor of 1.10 for P-metric tires used on non-passenger car vehicles. For non-passenger car vehicles equipped with P-metric tires, the vehicle normal load shall be not greater than the derated value of 94% of the tire load rating at the vehicle's placard pressure. This de-rating provides a greater load reserve when these tires are installed on vehicles other than passenger cars. For the first time, this final rule requires light trucks to have a specified tire reserve, the same as for passenger cars, under normal loading conditions.

The agency has decided to retain the de-rating factor for P-metric tires used on MPVs, trucks, and buses in part in response to widespread support from commenters. Additionally, the agency continues to believe that the premise

behind the 10 percent de-rating of P-metric tires remains valid today. This premise is that the reduction in the load rating is intended to provide a safety margin for the generally harsher treatment, such as heavier loading and possible off-road use, that passenger car tires receive when installed on a MPV, truck, bus or trailer, instead of on a passenger car.

The final rule adopts an expanded Table 1 text for occupant loading and distribution for designated seating capacities up to 22 occupants.

E. Applicability and Effective Dates

The requirements adopted by this rule apply, except where specified below, to new pneumatic radial tires for use on motor vehicles with a GVWR of 10,000 pounds or less, manufactured after 1975, except for motorcycles and LSVs, and for new motor vehicles with a GVWR of 10,000 pounds or less.

Given the increasing consumer preference for using light trucks for passenger purposes, the agency is requiring that the tire performance requirements for passenger car tires also apply to LT tires (load C, D, and E) used on light trucks. No commenters disagreed with the agency's statement in the NPRM that LT tires are increasingly utilized in the same manner as P-metric tires on light vehicles or with the agency's statement that the use of these tires on passenger vehicles will continue to increase in the near future.

Several commenters suggested that certain tires produced for specialty uses or antique vehicles be excluded from adhering to the new performance requirements. RMA suggested that the agency exclude temporary spares, various trailer tires, snow and deep lug tires, and bias tires from the applicability of FMVSS No. 139. The TRA asked that special-use tires such as ST, FI, and 8-12 rim diameter and below tires (typically used on smaller, towed trailers) be excluded from FMVSS No. 139 and continue to be covered by FMVSS No. 109. Specialty Tires and CU argued that bias ply tires should continue to be regulated under FMVSS No. 109, not FMVSS No. 139 because the agency did not conduct any testing of these tires under the proposed parameters, they may not pass the new tests, and they are not part of the group of tires targeted by the TREAD Act to be upgraded. Hoosier Tires and Denman, makers of small lot specialty tire of both bias and radial design (15,000) per year suggest that limited production tires continue to be covered by FMVSS No. 109 and not become subject to the requirements of FMVSS No. 139.

The agency emphasizes that it is not changing the "on-road" versus "off-road" definition in this rulemaking. It also notes that specialty tire manufacturers are currently required to subject their "on-road" light vehicle tires to the performance tests in FMVSS No. 109 and 119.

The agency is aware of several manufacturers, such as Denman and Hoosier, which produce bias tires for racing, off-road, and antique/classic car applications. These tires represent a very small (less than 1 percent) segment of the market for light vehicle tires and are not offered by any vehicle manufacturer on any new light vehicle sold in the U.S. Further, the number of miles that they are driven per year on highways is insignificant. Therefore, the agency has decided to exclude bias, ST, FI, and 8-12 rim diameter tires from FMVSS No. 139. These tires, however, will continue to be covered by FMVSS No. 109 and 119. FMVSS No. 109 will not be deleted.

The agency, however, has decided that FMVSS No. 139 will be applicable to all radial P-metric and LT tires load ranges C, D, and E, produced for light vehicles manufactured after 1975, even specialty radial tires made in small lots or in limited production. Radial snow tires and other deep tread tires are also required to comply with FMVSS No. 139. Limited production, snow, and deep tread radial tires are operated on the same roads as mass produced P-metric tires and the agency believes that they should be capable of the same level of performance under comparable conditions. Further, the number of miles that they are driven per year on highways is believed to be greater than the number of on-road miles for the bias tires discussed in the immediately preceding paragraph. Retread tires will continue to be covered by FMVSS No. 117 and non-pneumatic spare tires will continue to be covered by FMVSS No. 129.

Most tire manufacturer and vehicle manufacturer commenters requested a longer lead-time than the two alternative implementation schedules proposed in the NPRM. The agency has decided to establish an effective date for implementation of both tire and vehicle requirements of 4 years after the date of publication of the final rule. The proposed implementation schedules in the NPRM reflected NHTSA's desire for expedited action on this issue. In view of the comments received by the tire and vehicle industry and the significance of the tire and vehicle design and production changes that may occur as a result of these new requirements in area not substantively