

2007. The change in weight includes all factors, such as changes in fleet mix of vehicles, required safety improvements, and voluntary safety improvements. Our review of new safety requirements that will apply to the MY 2005–2007 light truck fleet indicates that compliance with the following safety standards will have an impact on vehicle weight:

**1. FMVSS 138, Tire Pressure Monitoring Systems**

As required by the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, NHTSA published a final rule in June 2002 (67 FR 38704) requiring Tire Pressure Monitoring Systems (TPMS) be installed in all passenger cars, multipurpose passenger vehicles, trucks and buses that have a GVWR of 10,000 pounds or less, effective in November 2003. We estimated that the added weight would be that of electrical parts weighing not more than half a pound (0.23 kilograms or less) per vehicle. Ford submitted comments indicating that NHTSA's projection underestimated the weight penalty for complying with this standard. However, Ford's suggested weight penalty was not significantly higher than that estimated by the agency and would not have any greater impact on fuel economy.

**2. FMVSS 139, Tire Upgrade**

The TREAD Act mandated rulemaking to revise and update our safety performance requirements for tires. On March 5, 2002, NHTSA published a proposal to upgrade those requirements (67 FR 10050). Our Preliminary Economic Assessment for the proposed tire upgrade indicated there would be added cost for the improved tires but no increased weight. We also observed that changes to the required normal load ratings for passenger car tires might make it necessary for some of these vehicles to have larger tires, which would add an undetermined minimal amount of weight to those vehicles. In regard to light trucks, we observed that the agency's proposal would, for the first time, establish a maximum vehicle normal load rating for light truck tires but did not indicate if meeting the requirement would make it necessary for manufacturers to use larger rims and tires on their trucks.

Both Ford and General Motors submitted comments indicating that the proposed requirements of FMVSS 139 could have significant impacts on fuel economy. Ford indicated that the agency's proposed rule would impose weight increases from a need to make tires heavier and for rims on vehicles to

be larger. General Motors' comments indicated a belief that the proposed requirements could have a serious impact on fuel economy by increasing rolling resistance.

Although NHTSA has not yet issued a final rule, the agency believes that the concerns raised by Ford and General Motors are not well founded. While General Motors did not indicate with specificity exactly why it believed that FMVSS 139 would increase rolling resistance, NHTSA believes that the standard is more likely to decrease rolling resistance. One component of NHTSA's proposal for FMVSS 139 is new requirements for high-speed endurance. Meeting these new endurance requirements is likely to result in tires that have less, rather than more, rolling resistance. One of the principal factors affecting tire endurance at high speeds is heat buildup in the tire. Tires with less rolling resistance generate less heat and have more endurance. Therefore, the new requirements are likely to encourage tires with less rolling resistance.

Ford's concern, which indicated a weight penalty from heavier tires and rims, evidently stems from a concern that complying with new high speed test requirements in FMVSS 139 and application of the load reserve requirements of FMVSS 110 to light trucks will force manufacturers to use heavier tires and rims on these trucks. FMVSS 110 specifies requirements for tire and rim selection for new vehicles. One purpose of these requirements is to prevent tire overloading by specifying that rims and tires provide a minimum load reserve.

According to Ford, the agency's proposal to modify FMVSS 139 and 110 to require light truck manufacturers to meet these load reserve requirements could, for those light trucks that did not already meet the new load reserve requirements, have the effect of making it necessary for manufacturers to use larger wheels and tires on their vehicles. However, NHTSA is currently evaluating its proposal in light of the public comments and has not yet issued a final rule. We anticipate that the agency's concerns relating to overloading will be addressed without creating a need to equip light trucks with larger wheels and tires.

**3. FMVSS 201, Occupant Protection in Interior Impact**

This standard specifies requirements to afford protection for occupants from impacts with interior parts of the vehicle. On April 5, 2000, NHTSA issued a proposal to require that the

door frames on pillarless multi-door vehicles and seat belt mounting structures on soft top utility vehicles meet the upper interior head protection requirements of FMVSS 201. The proposed requirements would apply to passenger cars and to multipurpose vehicles, trucks, and buses with a GVWR of 10,000 pounds (4,536 kilograms) or less. Because these proposed requirements will apply only to a very small percentage of light vehicles, the agency believes that the requirements will not have an effect on the CAFE of any manufacturer. Finally, we note that none of the commenters attributed any fuel economy impacts to this standard.

**4. FMVSS 202, Head Restraints**

In January 2001, the agency published a proposal to improve front seat head restraints in passenger cars, pickups, vans, and utility vehicles and require head restraints in the rear outboard positions (66 FR 967). Because many pickup trucks and some vans do not have back seats, their average weight increase under that rulemaking would be lower than that for automobiles. NHTSA estimated the average weight gain for light trucks, vans and SUVs would be 4.3 pounds (1.94 kilograms) per vehicle. The agency proposed three years leadtime for the head restraints final rule. Since that rule has not been issued yet, the earliest effective date would be September 1, 2006 or MY 2007. Therefore, any weight penalty would be limited to MY 2007.

Ford was the only commenter to suggest that the FMVSS 202 rulemaking might have any impact on CAFE, based on the proposal to require rear head restraints. The company estimated a weight penalty that was based on its view that the FMVSS 202 final rule would require head restraints in some rear seating positions presently not equipped with them. NHTSA notes that the asserted weight penalty would not affect the significant number of vehicles in the light truck fleet that do not have rear seats. Based on the distribution of potential rear seat head restraints across Ford's fleet, we agree that vehicles with rear seats might experience a weight penalty for compliance with FMVSS 202 if rear seat head restraints were required. However, neither the weight increase estimated by Ford nor that estimated by the agency is significant enough to affect Ford's ability to meet the MY 2007 standard.

**5. FMVSS 208, Occupant Crash Protection**

On May 12, 2000, NHTSA published a final rule (65 FR 30680) amending our