

These comments are submitted for review and are in reference to docket Number 2004-19054 TPMS.

1. OEMs set the tire placard pressures to accommodate two passengers and some luggage.
2. The tire pressures are usually the minimum to carry the load per the placard limits
3. These pressures are too low for normal vehicle travel at freeway speeds.
4. Tire manufacturers recommend an additional 5-PSI be added to the placard limit for sustained high-speed travel.
5. Most deflation happens away from any suitable refill location; therefore the vehicle must travel some distance prior to checking and refilling an underinflated tire.
6. Setting a warning at 25% below placard limits is not reasonable considering the situation of today's commuting public. Refill stations are no longer available at the corner gas station, and if they do have an air compressor it is usually not operative.
7. Most commuting takes place on the national highway system, with speeds in excess of 65 MPH. At these speeds a tire that is 25% below recommendation will disintegrate before the operator can react and exit the national highway system and take care of any problems.
8. The telltale must be a flashing warning, not just a steady light, how often do you as a vehicle operator check you dash panel other than the speed indicator. The warning must get the operator's attention right away.
9. A more realistic pressure limit for setting the warning would be in the neighborhood of between 15 and 18%. At a point before the tire sidewall begins to over flex.
10. Consider an Automotive tire rolling down the highway at 55 MPH, Each Body Cord will flex and un-flex at a rate of about 800 times per minute. So long as the tire is properly inflated this is not a problem. Now induce an air leak, as the tire pressures drop, each body cord begins to flex more severely, and the flex will take place more toward the bead areas. As the tire over flexes, heat begins to build, and the tire is no longer able to dissipate the heat. Heat continues to build, at some point above 200⁰ F the tire compounds begin a reversion process, and the tire components become delaminated, and a separation occurs.
11. A reserve pressure must be maintained to extend the reaction time from the warning set point to recognition and action by the operator. A warning set point of 25% below recommended limits does not allow for the recognition and action in a timely manner.