January 22, 2007

To: Nicole R. Nason, Administrator
National Highway Traffic Safety Administration
400 Seventh St. SW
Washington, DC 20590

Re: FMVSS 208

We, the undersigned, hereby petition National Highway Traffic Safety Administration to remove a provision of FMVSS 208 because of its potential for deleterious effects on the safety of children being transported in surface motor vehicles. This section [S7.1.1.5(d)] pertains to the sunset clause for the lockability portion of the standard and is due to take effect on September 1, 2012.

Beginning with vehicle model year 1996, in response to the increasing recognition of the incorrect use rate of safety seats, particularly in regard to loose installation, the federal government mandated that vehicle manufacturers incorporate a system into safety belts enabling users to make the belt stay tightly fastened to anchor child restraints. This was done because of the difficulty of using locking clips to fit safety seats for young children tightly in motor vehicles at a time when most shoulder-lap belts and even some lap belts were equipped with emergency locking retractor systems. This was an essential step toward improving the ability of parents to anchor safety seats securely so they would be in a suitable position to provide protection if the vehicle were to be involved in a crash.

Most vehicle manufacturers opted for switchable retractors in shoulder-lap belts with continuous webbing and sliding latchplates. These were generally designed so that, when the shoulder belt was pulled out fully from the shoulder belt anchor, the mechanism would switch to automatic locking retractor mode and would ratchet back until the belt was tightly locked around the safety seat. A few manufacturers chose other methods, such as cinching or locking latchplates, which provided for a tight lap portion of the belt but left the top section of the webbing not locked.

Since this requirement was added to the 208 standard for all seating positions except the driver’s seat, many changes have occurred in the field of occupant protection. New technology, such as the LATCH system, has come on line; many more children are using booster seats; and more safety seats with full harness systems designed for children weighing more than 40 pounds are available for children who are large for their age or have physical and/or emotional challenges.
There are a number of reasons why lockable safety belts will continue to be needed. Child passenger safety (CPS) advocates and CPS Technicians have discovered multiple uses for the safety belts with the switchable retractor feature to promote better protection in car crashes.

The following are the most important new usages:

1) to help restrain the youngest users of boosters and others who find it difficult to sit still in a booster, by preventing them from introducing slack in the safety belt, purposely or inadvertently;
2) to anchor safety seats with harness systems certified for use above 40-48 pounds, which are not supposed to be anchored using the lower (LATCH) anchors;
3) to lock the unused belt when the child restraint is anchored with LATCH so that toddlers cannot pull the shoulder portion of the belt out and wrap it around their necks during transport.

The lockability feature is very beneficial to children in boosters, especially those who have recently outgrown a safety seat with a 5-point harness, since it provides them with a snug safety belt without requiring constant monitoring. Three- and four-year-olds are not ready developmentally to sit still and keep the belt properly snug and in the correct location. They may place an unlocked belt behind the back or under the arm or they may simply leave an inappropriate amount of slack in it.

The introduction of seats with a harness certified for use beyond 40 pounds has improved safety for children who outgrow conventional safety seats before they are ready for a booster. Also, some children with physical challenges need a safety seat with a full harness designed for use up to 100 pounds or more. In addition, these products are needed in a number of states requiring child restraint use for children over 40 pounds to enable parents to conform to the law in vehicles without rear seat three-point belts, where booster seats are not usable. These restraints would be significantly more difficult to install securely if it becomes necessary, as it was in many cars made prior to 1996, to use a locking clip.

There continue to be instances where the current designs of LATCH anchor positions in vehicles are not completely compatible with a particular child restraint. This means that a tighter installation may be achieved with a safety belt instead of lower anchors. This often is due to anchors located above the seat bight and vehicles with deeply contoured lower cushions. In addition, some LATCH anchors are still hard to find or reach.

There are new, potentially useful ideas for the application of LATCH anchors that could improve protection for children using LATCH-equipped safety restraints. For example, one research team¹ has pointed out that, in vehicle seats wide enough to hold three occupants but equipped with only two pairs of lower anchor bars, it might be beneficial to move the lower anchors inboard to lessen exposure to intrusion in side impacts. (This also would allow use of the two inner bars for center LATCH installation, reducing the common misuse by parents who attach safety seats to two widely spaced inner bars in order to utilize the center seating position.) Such innovation would be feasible only if lockable belt systems also were available in the event

¹ "Children in Side Impact Crashes: Seating Positions and Injury Mechanisms, Andrew Howard, MD et al, Journal of Trauma, 6/04."
that belts instead of LATCH systems were needed in order to restrain three children in safety seats in the back seat.

In addition, some innovative uses for switchable, retractor-equipped shoulder-lap belts unrelated to child passenger protection have been found:
1) to restrain arrestees transported in the rear of police vehicles;
2) to restrain equipment in front passenger seating positions of police cruisers to protect drivers from potential flying objects in the event of a sudden stop or crash.

Future research may reveal other benefits for the existing lockability technology.

Therefore, we, the undersigned, petition NHTSA to remove the sunset clause in FMVSS 208 that allows automotive manufacturers to cease providing the lockability feature of safety belts located where LATCH anchors are installed in vehicles. This is a matter of urgency, since vehicle designs are planned several years before implementation.

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Enclosures: Supporting data
- List of supporters of the petition
- Comments from petition supporters