

**DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration****49 CFR Part 571**

[Docket No. 94-70, Notice 2]

**Federal Motor Vehicle Safety Standard 206; Door Locks and Door Retention Components****AGENCY:** National Highway Traffic Safety Administration, DOT.**ACTION:** Notice of public meeting and request for comments.

**SUMMARY:** This document announces a public meeting to seek comments on potential upgrading of Federal Motor Vehicle Safety Standard No. 206, Door Locks and Door Retention Components, to further reduce the likelihood of occupants being ejected through side door openings as a result of vehicle crashes.

The purpose of this public meeting is to inform all interested parties about the current status of NHTSA's research on side door ejections and potential countermeasures for ejection reduction, and to solicit comments on the agency's findings. In addition, the agency wishes to obtain information related to reduction of side door ejections through development of improved latches and other countermeasures that are being undertaken by domestic and foreign vehicle manufacturers, and other organizations. The information gathered at this meeting will assist the agency in deciding its future course of action to solve the side door ejection problem. In addition, the agency is also seeking information from safety groups or other interested parties who may have conducted their own investigation on the magnitude of the safety problem in this area and potential solutions.

**DATES:** The meeting will be held on August 7, 1995 at the address given below, starting at 9:00 a.m. Persons or organizations desiring to make presentations at the public meeting are asked to advise NHTSA of their intent by July 24, 1995. Copies of presentations, or an outline thereof, should be submitted to the contact person shown below not later than July 31, 1995. All written comments and statements on the subjects discussed at the meeting must be received by the agency no later than August 21, 1995 so that such comments and statements could be included in the final transcripts of the public meeting.

**ADDRESSES:** The public meeting will be held at the following address: Holiday Inn-Fair Oaks Mall, 11787 Lee Jackson

Memorial Highway, Fairfax, VA 22033. Tel: (703)-352-2525 and Fax: (703)-352-4471.

Requests to make a presentation and a copy of the presentation, or an outline thereof, should be sent to: Dr. Joseph Kianianthra, Chief, Side and Rollover Crash Protection Division, Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590.

Written comments should refer to the docket and notice number shown above and ten copies should be submitted to Docket Section, National Highway Traffic Safety Administration, Room 5109, 400 Seventh Street SW., Washington, DC 20590. However, submissions containing information for which confidential treatment is requested should be submitted with three copies to Chief Counsel, National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street SW., Washington, DC 20590. Seven additional copies from which the purportedly confidential information has been deleted should be submitted to the Docket Section.

**FOR FURTHER INFORMATION CONTACT:** Dr. Joseph Kianianthra, Chief, Side and Rollover Crash Protection Division, Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590. Tel: (202)-366-4924, and Fax: (202)-366-4329.

**SUPPLEMENTARY INFORMATION:** Federal Motor Vehicle Safety Standard (FMVSS) No. 206, Door Locks and Door Retention Components (49 CFR 571.206), specifies performance requirements for side door locks, latches, hinges and other support means used in vehicles to minimize the likelihood of occupants being ejected through the side door openings. The standard requires, among other items, each latch and striker system and each hinge system not to disengage when a longitudinal force of 2,500 lbs or a transverse force of 2,000 lbs is applied. In addition, the standard requires each latch and striker system not to disengage when a 30-g inertial loading is applied in the longitudinal or transverse direction. To assess the effectiveness of the standard, the agency conducted a rulemaking evaluation study "An Evaluation of Door Locks and Roof Crush Resistance of Passenger Cars—Federal Motor Vehicles Safety Standards Number 206 and 216" (DOT HS 807-489, November 1989). In the study, the fatal ejection risk in rollovers was calculated for passenger cars manufactured during the 1963-1982 period. The study concluded that latch

improvements implemented in 1963-1968 reduced the fatal ejection risk by 15 percent in rollover accidents.

It is well known that promoting seat belt usage is the most cost/effective means to reduce the risk of ejection. The agency and vehicle manufacturers have been promoting seat belt usage for many years and, consequently, the average seat belt usage rate has increased dramatically in recent years. However, the NASS accident data show that the total fatal ejections per year remain relatively constant since 1978 in spite of significant increases in seat belt usage in recent years. The agency believes that there are two counter balancing effects which contribute to maintaining the number of ejection fatalities and injuries relatively constant. The reduced ejection rates due to an increase in seat belt usage is probably off-set by the exceptional high ejection rates in small cars, light trucks and multipurpose passenger vehicles. The increasing number of small cars on the highway since the late 1970's and the current consumer preference of using pickups, mini-vans and utility vehicles for personal transportation are likely to increase the total number of fatal ejections in those vehicles. Thus, any benefits derived from increased seat belt usage appear to have been off-set by the increase in ejections experienced in small cars, light trucks, and multipurpose passenger vehicles. It is estimated that in 1995 and beyond side door ejections will result in approximately 1,475 fatalities and 1,925 AIS 3+ injured survivors. Therefore, side door ejections are and will remain a significant safety problem.

Since the issuance of FMVSS No. 206 in 1967, the agency has investigated many crashes associated with side door openings and ejections. In 1986, the agency initiated a pilot study "Side Door Latch/Hinge Assembly Evaluation" (DOT HS 807-234, October 1986) to investigate side door latch strength and occupant ejection problems. Since then, the agency has continued its research efforts in this area. To date, the agency has identified many real world latch failure mechanisms and has developed a set of test procedures that may be suitable for evaluating the performance of the latch and striker systems used in most production vehicles. These test procedures potentially address only a small portion of possible failure modes that are occurring in real world crashes. The agency has concluded that the side door ejection problem involves a variety of different latch failure mechanisms, and that there is not a single representative latch failure mode that