

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

August 27, 2008

David Kelly
Acting Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE, West Building
Washington, DC 20590

Notice of Proposed Rulemaking; Federal Motor Vehicle Safety Standard, Windshield Zone Intrusion; Docket No. NHTSA-2008-0124

Dear Mr. Kelly:

On July 7, 2008, the National Highway Traffic Safety Administration (NHTSA) announced a proposal to rescind Federal Motor Vehicle Safety Standard (FMVSS) 219, Windshield Zone Intrusion. This standard was enacted in 1976 to protect occupants from injuries that could result from the hood or other vehicle components intruding into the occupant compartment through the windshield during a frontal collision. Vehicle manufacturers responded quickly, and there has not been a compliance issue with the standard since shortly after its creation. Now the agency has concluded the standard no longer is necessary.

NHTSA justifies its conclusion by two arguments: There have been no failures of the standard in many years, and the intrusion issue would be covered by other standards, thereby making FMVSS 219 redundant. The Insurance Institute for Highway Safety (IIHS) disagrees with this logic. The standard's success at creating a safer occupant environment, resulting in 100 percent compliance for the past 30 years, should not be used to justify removal of the standard. This is precisely what the standard is supposed to assure. Nor should it be assumed that the existing standard has entirely addressed the problem of windshield intrusion in crashes. According to an IIHS review of National Automotive Sampling System (NASS) cases, vehicle hood penetration into the occupant compartment still occurs in some frontal collisions. NASS cases of 1992 and later model year vehicles involved in frontal collisions during calendar years 2002-06 were examined for hood or exterior component intrusion through the windshield in the vicinity of the NHTSA-defined protected zone. Windshield intrusion occurred in a small number of offset crashes, pole impacts, and severe underride collisions with large trucks or tractor trailers. None of the NASS cases examined reflected a crash similar to the 48 km/h flat barrier test, confirming that FMVSS 219 has been effective at reducing windshield intrusion in this crash condition. However, windshield zone intrusion is an issue in other crash modes, and it would seem more logical to strengthen FMVSS 219 to address them rather than simply rescind a standard that is working.

The redundancy argument also is flawed. FMVSS 208, Occupant Crash Protection, by itself would fall short of providing the same protection from components intruding through windshields as the requirements of FMVSS 219 because it relies on injury measures from crash test dummies to indicate a safety deficiency. Without FMVSS 219, any vehicle component intruding through a windshield would have to strike the dummy and cause an injury measure to exceed the performance criteria before the intrusion would be deemed a safety problem. However, any component intruding through a windshield should be considered a hazard, even if it does not strike the dummy, because even slight changes to the crash scenario (crash type, speed, occupant size) could result in an injurious occupant contact. NHTSA also indicated that FMVSS 113, Hood Latch System, helps limit windshield intrusion, but this is a crash prevention standard, not a crash protection standard. It is intended to prevent inadvertent hood opening

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during transit by requiring a secondary hood latch. The latches that meet FMVSS 113 may or may not influence the behavior of the hoods in frontal crashes, but the standard does not include crash tests or performance criteria that impose this design characteristic.

NHTSA is underestimating the continuing benefits of FMVSS 219, especially considering a growing global market, while simultaneously overestimating the benefits of its rescission. Although FMVSS 219 does not address all the crash configurations that result in windshield intrusion, it does ensure a baseline level of protection. Without the standard, manufacturers seeking to introduce low-cost vehicles to the US market in the future would not be required to provide the same level of safety currently provided by vehicles that comply with FMVSS 219. At the same time, FMVSS 219 poses little additional compliance test burden for vehicle manufacturers already following the standard because it can be assessed in the flat barrier crash tests already being conducted. That is, FMVSS 219 requires compliance with the performance criteria in flat barrier tests up to a speed of 48 km/h. The frontal crash occupant protection standard (FMVSS 208) also requires flat barrier tests, at 40 km/h and 56 km/h. Thus, a manufacturer could assess windshield zone intrusion in the 56 km/h FMVSS 208 test and would only need additional testing for the sake of demonstrating compliance with FMVSS 219 in the rare case of windshield intrusion occurring in the higher speed test. Alternatively, NHTSA could require that there be no windshield zone intrusion in flat barrier tests up to 56 km/h, a requirement that all vehicles currently sold in the United States undoubtedly meet.

At its inception, FMVSS 219 improved occupant safety by reducing the risk posed by vehicle components intruding through windshields. Based on the evidence currently available, the standard has been enormously effective. It also is clear that its benefits are not assured by other current standards. The logical step for NHTSA is to preserve FMVSS 219 or amend it to take into account the types of crashes in which windshield area intrusion is still a factor. Maintaining the standard creates little additional work for the agency or manufacturers and protects US consumers from the possibility that low-cost vehicles, which may not provide the same level of protection, will be introduced in the US market.

Sincerely,



Adrian K. Lund, Ph.D.
President

cc: Docket Clerk, Docket No. NHTSA-2008-0124