INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

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The Honorable Jeffrey W. Runge, M.D.
Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Initiatives to Address the Mitigation of Vehicle Rollover
Docket No. NHTSA 2003-14622, Notice 1

Dear Dr. Runge:

The National Highway Traffic Safety Administration (NHTSA) has asked for comments on its proposed initiatives for preventing or mitigating vehicle rollover crashes. The Insurance Institute for Highway Safety is pleased to see NHTSA devising a plan of action and urges the agency to move forward quickly on implementing these initiatives. The list of strategies is impressive, but some hold more promise than others, and these should be given the highest priority.

The upcoming ratings of rollover resistance based on dynamic tests could lead to more stable vehicle designs. It still is unclear, however, whether these dynamic tests will overstate or understate the potential crash avoidance benefits of technologies such as electronic stability control or road departure warning systems. The tests need to be representative of a variety of common real-world pre-rollover maneuvers so that the electronic systems will not be fine tuned to perform well only in one or two specific situations (e.g., J-turn and fishhook). Details of the dynamic stability tests and rating scheme need to be publicized in the next few months. More important is for NHTSA to demonstrate a strong statistical relationship between the stability tests and real-world rollover rates.

The initiatives for preventing or mitigating occupant ejection also should be a high priority. Enhanced safety belt reminder systems have been shown to increase belt use, so manufacturers should be strongly encouraged to include them in their new vehicle designs. NHTSA also should work quickly to promote passive occupant retention systems such as rollover sensors that can trigger side inflatable curtains. The proposed introduction of a side-into-pole crash test as part of Federal Motor Vehicle Safety Standard (FMVSS) 214 will have only a limited effect on occupant protection in rollovers. Such a test should lead to the introduction of more side head or curtain airbags, but this will not necessarily lead to the introduction of rollover sensors. In fact, pole tests even have limitations for

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assessing the side impact performance of airbags. This is because the pole will always hit the doorsill, making the crash sensing task relatively easy. In side impacts where the principal force is at the door level (e.g., impacts by taller vehicles), the challenge is much harder for the side impact crash sensors.

Another of the initiatives involves upgrading FMVSS 216, which sets criteria for roof crush resistance. Clearly this very old standard is long overdue for revision. But before a reasonable upgrade can be devised, research is needed on the relationship between roof damage and occupant injury in real-world rollover crashes and the various laboratory measures of roof crush strength.

In conclusion, it is useful to have listed such a complete set of proposed initiatives. There must be priorities, however, that are addressed as soon as possible so we can very soon see a reduction in rollovers and rollover-related injuries.

Sincerely,

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Senior Research Analyst

cc: Docket Clerk, Docket No. NHTSA 2003-14622, Notice 1