

B I D E Z

& ASSOCIATES

March 30, 2005

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

Reference: Docket No. NHTSA-1999-5572; Notice 2, 66 Fed. Reg. 204,
October 22, 2001

Dear Dr. Runge:

The attached report provides an analysis of SUV dolly rollover test data directly relevant to the issues surrounding the role of roof strength in causing injuries and the agency's Request for Comments, Docket No. NHTSA-1999-5572-8, Notice 2, issued on October 22, 2001. This report presents unequivocal evidence that a direct, causal relationship exists between the peak neck forces in restrained occupants, which lead to catastrophic injury, and the magnitude of roof/pillar deformation sustained by a vehicle in a rollover crash. I particularly appreciate the opportunity to share this data with both NHTSA and the larger scientific community through this open docket, which seeks input on the effectiveness and appropriateness of the existing Roof Crush Resistance Standard, FMVSS 216.

As you probably know from Ford's presentation to the Agency on March 5, 2004 (NHTSA-1999-5572-75), during the nine month interval from December 9, 1998 to August 11, 1999 Ford Motor Company sponsored four J2114 dolly rollover tests of Explorer vehicles at Autoliv ASP (Auburn Hills, MI)¹. The structures of the SUVs were instrumented with accelerometers at all pillars, roof rails and rocker panels, in addition to a location at the vehicle's center of gravity. Two fully instrumented Hybrid III 50th percentile male dummies were 3-point restrained in the driver and right front passenger seating positions. For each test, a total of 118-127 channels of data as well as external and internal video footage were collected.

In 2003, the full raw data set (including sensor and high speed video data) was made available for my review and analysis in litigation involving consumers catastrophically injured in rollover crashes involving Ford SUVs. An overview of the data along with Ford's analysis and conclusions was presented to NHTSA by representatives of Ford on March 5, 2004 and publicly posted in the docket on April 27,

¹Ford SUV Test 1 (Autoliv Test B190042) conducted 8/10/99; Ford SUV Test 2 (AutolivTest B180219) conducted 12/9/98; Ford SUV Test 3 (Autoliv Test B190043) conducted 8/11/99; and Ford SUV Test 4 (Autoliv Test B180220) conducted 12/10/98.

2004. Ford Motor Company's public presentation of the Autoliv data was, to the best of my knowledge, Ford's first public release of the test data, which fortunately allowed the scientific community public access to information that had previously been kept confidential since 1998.

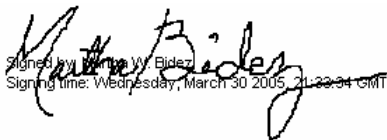
The attached report addresses both the data presented by Ford as well as our analysis of roof rail acceleration data, which Ford neither addressed nor mentioned in its presentation to NHTSA. This information was also presented in open court in Phoenix, Arizona in October 2004². Regardless of the motive surrounding Ford's failure to reference the data we reference in this report, we felt the findings were significant enough to bring to your attention because the data allows one to more completely evaluate some of the very issues for which the docket seeks comment.

Our research group included myself, Dr. John Cochran, an aerospace engineer with special expertise in dynamics, and Ms. Dottie King, a Fortune 500 corporate consultant in mathematics and statistics.

The attached report focuses on the events surrounding the first ground contacts for both the driver's and passenger's side roof rail. Additional work is ongoing and the report will be supplemented as our analysis continues.

We hope our report provides the kind of information you need to critically analyze the various comments provided to the docket, including those who are still apparently trying to claim that there is no relationship between roof strength and injury causation in rollover accidents. Given what the data shows, such a position is very difficult to understand, at least from a scientific standpoint.

Sincerely,



Signed by Martha W. Bidez
Signing time: Wednesday, March 30 2005, 21:32:34 GMT

Martha W. Bidez, Ph.D.

² RICHARD MORRIS and YVONNE MORRIS, individually and as parents and next best friends of JACQUELINE MORRIS, deceased, Plaintiffs, vs. FORD MOTOR COMPANY; JOHN DOES I-V, Defendants; CV2003-002298