

# United States Senate

WASHINGTON, DC 20510

May 25, 2016

Lex Kerssemakers  
President and CEO  
Volvo Cars of North America  
1 Volvo Drive  
Rockleigh, NJ 07647

Dear Lex Kerssemakers,

We write to request information regarding your company's efforts to protect passengers against the threat of front seatback failures. Front seatback failures, which occur primarily during rear-end crashes, put back seat passengers—especially infants and children—at serious risk of injury or even death. According to a child rear impact study commissioned by the Center for Auto Safety, approximately 50 children placed behind occupied seats have died annually in rear impact incidents over the last 15 years.<sup>1</sup>

A number of recent incidents illustrate this horrifying danger. For example, a 2012 rear-end crash in Texas caused the collapse of a father's front seat onto his 11-year old son, leaving the child with severe brain damage.<sup>2</sup> Another North Carolina case in 2014 resulted in the death of a 13-month old after a rear-end crash caused the front seat to collapse backward and crush him.<sup>3</sup>

As you know, the public has been instructed to place children in the back seat of vehicles equipped with airbags dating back to the 1996 Airbag and Seat Safety Campaign.<sup>4</sup> This advice was most recently reiterated in 2015 guidance from the National Highway Traffic Safety Administration (NHTSA).<sup>5</sup> Unfortunately, weak seat strength standards may undermine this advice. There has been a longstanding concern that the Federal Motor Vehicle Safety Standard (FMVSS) 207, which specifies the minimum requirements for seat strength, is not sufficient to mitigate injury or death of a rear seat occupant due to seatback collapse in a rear-end collision.

Despite several petitions to the U.S. Department of Transportation urging modernization of the seat system standard, FMVSS 207 has not been substantially updated since it was first adopted in 1967. In March 1974, NHTSA published a Notice of Proposed Rulemaking for FMVSS 207 to make significant changes, but such regulatory efforts were eventually terminated in 2004 for the purpose of conducting further study on the matter.<sup>6</sup>

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<sup>1</sup> <http://www.autosafety.org/wp-content/uploads/2016/03/Seat-Back-Petition-FINAL.pdf>

<sup>2</sup> <http://www.bloomberg.com/news/articles/2016-03-03/audi-loses-124-million-texas-verdict-over-seat-back-failure>

<sup>3</sup> <http://www.gosanangelo.com/news/deaths-raise-questions-on-auto-seat-safety-2f5d4bb4-6a0b-33d7-e053-0100007f8b4c-374390421.html>

<sup>4</sup> <http://www.nhtsa.gov/staticfiles/nti/enforcement/pdf/ProtectingChildren.pdf>

<sup>5</sup> <http://www.nhtsa.gov/About+NHTSA/Press+Releases/2015/back-to-school-advisory-aug2015>

<sup>6</sup> <https://www.gpo.gov/fdsys/pkg/FR-2004-11-16/pdf/04-25425.pdf>

While some automobile manufacturers may have established higher internal standards than the requirements in the antiquated FMVSS 207,<sup>7</sup> other automakers claim that their seatbacks are designed to collapse rearward in order to protect the front seat occupants from injury. We worry that this design decision is being made without any apparent consideration of the potential for injury to the rear seat occupants.<sup>8</sup> In order to better understand the ability of automobile companies to protect the safety of vehicle occupants in rear-end collisions, we request that you respond to the following questions.

- 1) How many consumer complaints and incident reports from dealerships or field personnel involving the collapse of the front seat has your company received in each of the last 10 years?
- 2) Have any static or dynamic tests conducted by your company resulted in a front seatback dynamically reclining more than 15 degrees from its initial starting position? If so, was the test specific to seatback strength, or was it part of another safety assessment such as FMVSS 301? Did your company change the seat design after the results of such a test were reviewed? If so, in what manner, and were the tests repeated in order to ensure that the design changes remedied the problem? If not, why not?
- 3) What is the make, model, and year of your company's vehicle(s) that have been available for sale in the United States in each of the last 10 years and exceed FMVSS 207 requirements (if applicable)?
  - a. For each vehicle model that exceeds the threshold amount, by how much can the front seats withstand a force beyond the current FMVSS 207 requirement of 3,300 inch-pounds?
  - b. Integrated seatbelt systems, when properly installed, can help mitigate harm to vehicle occupants in the event of a crash. When seatback strength is tested in vehicles that have stronger seats and/or integrated seatbelt systems, some seats may twist to a particular side, thereby indicating the seat strength is uneven. Inconsistent strength levels can limit the efficacy of an integrated seatbelt system in protecting occupants during a rear-end collision. Please indicate if the vehicles mentioned in question 3(a) include an integrated seatbelt system and whether the seat (integrated system or not) has the same level of strength for both sides of the seat
- 4) Has your company ever been involved in a lawsuit for an incident that alleged front seatback failure? If so, please provide the following information for each of the past 10 years:
  - a. The number of cases and the year in which the case was filed.
    - i. Please also indicate if the case was dismissed or settled, either as part of the suit or pre-suit. If a case is not filed but settled pre-suit, then please include the date it was first brought to your attention.
  - b. The year in which the case was closed (if applicable).
  - c. The state in which the incident occurred;

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<sup>7</sup> <http://www-nrd.nhtsa.dot.gov/pdf/esv/esv18/CD/Files/18ESV-000248.pdf>

<sup>8</sup> <http://www.cbsnews.com/videos/consumer-group-demands-new-car-seat-safety-standards/>

- d. Include whether the case included a death or injury and whether it was reported to the early warning reporting (EWR) system. If reported, please provide the EWR reporting quarter number and case sequence for each report.
  - e. The location of the seat where an injured or deceased occupant(s) was sitting at the time of the incident.
  - f. Age of all the injured and/or deceased occupant(s).
  - g. The make/model/and year of the vehicle(s) involved and whether the vehicle exceeded the threshold for FMVSS 207 requirements.
  - h. Copies of corresponding police reports for these cases.
- 5) Please provide the EWR reporting quarter number and case sequence for any incident that did not result in a lawsuit, but was reported as a death or injury claim under EWR.
- 6) Please provide copies of all field reports on front seatback failure submitted to the National Highway Traffic Safety Administration under the EWR system.
- 7) If you had to upgrade all seating systems to prevent rearward dynamic reclination in excess of 15 degrees from the seat's initial starting position in a FMVSS 301 test procedure<sup>9</sup> (which contains parameters for a rear moving barrier crash), please list all the necessary structural changes that would need to be made to the seat systems in the vehicle(s) your company manufactures.

Thank you for your attention to this important matter to ensure vehicle design features effectively protect passengers from collision injuries and fatalities. Please provide responses to these questions no later than June 23, 2016. If you have any questions, please have a member of your staff contact Michal Freedhoff or Elyssa Malin at 202-224-2742.

Sincerely,

  
Edward J. Markey  
United States Senator

  
Richard Blumenthal  
United States Senator

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<sup>9</sup> <https://www.gpo.gov/fdsys/pkg/CFR-2015-title49-vol6/pdf/CFR-2015-title49-vol6-sec571-301.pdf>