

June 28, 2010

Ralph J. Cicerone, President  
National Academy of Sciences  
500 Fifth Street, N.W.  
Washington, DC, 20001

Re: Electronic Vehicle Controls and Unintended Acceleration, TRB-SASP-10-03

Dear Dr. Cicerone:

The National Highway Traffic Safety Administration (NHTSA) has requested the National Academy of Sciences (NAS) to conduct a study on electronic vehicle controls and unintended acceleration arising out of at least 89 deaths linked to sudden unintended acceleration in Toyota vehicles. Pending legislation in both the House and Senate, the Motor Vehicle Safety Act of 2010, H.R. 5381 and S. 3302, would require NHTSA to issue a Federal Motor Vehicle Safety Standard on electronic controls and to consider the study being conducted by the NAS as part of the rulemaking to establish the electronic control standard. While the legislation would require NHTSA to issue separate safety standards for pedal placement and transmission configuration, it does not require NHTSA to consider subjective elements, such as human factors, as part of the rulemaking proceedings.

We have examined the list of proposed panelists and strongly believe that additional members must be appointed and several panelists already proposed must be dropped in order to achieve balanced representation and gain necessary expertise. Presently, the panel has three out of twelve members who have worked for the auto industry and two more who are human factors specialists who have no expert knowledge of electronic controls, reliability and failure mechanisms. The current NAS panel should focus exclusively on electronic vehicle control issues, the only area where Congress found NAS input to be necessary. If NAS and NHTSA believe a study of human factors is necessary, then we strongly recommend that a separate, independent panel be established to explore driver error and other behavioral issues. Human factors is an entirely different field which should not be combined with an examination of highly technical, objective electronics requirements.

Currently, it is difficult to identify a single electronics hardware expert on the NAS panel who would be able to probe problems such as PWM Latch-up (see e.g., [http://www.nasa.gov/offices/oce/lis/delta\\_lesson\\_2006/hdm/1603.html](http://www.nasa.gov/offices/oce/lis/delta_lesson_2006/hdm/1603.html)) in integrated circuits used in electronic throttle controls as well as radiation effects, conductive filament formation, and a host of other intermittent failure mechanisms that can occur in integrated circuits, circuit cards, connectors and other electronics used in motor vehicles. Furthermore, it appears that none of the panelists are specialists with expertise associated with multiple failure mechanisms, intermittent failures, failure analysis techniques, etc. These are all areas of expertise that are critical to conducting an impartial, credible study of electronic vehicle controls and unintended acceleration.

This panel, if properly balanced and with members who are recognized independent electronics experts, has the potential to play a key role in shaping the future of the safety and regulation of automotive electronic controls which are increasing both in use and complexity in motor

vehicles. Unfortunately, the present panel composition does not have the electronic sophistication or objectivity to produce the type of study that Congress and the public expect and that NHTSA needs. We would like to meet with you as soon as possible to discuss our objections and recommendations for this panel.

Sincerely,

Joan Claybrook  
President Emeritus  
Public Citizen

Clarence Ditlow  
Executive Director  
Center for Auto Safety

Jack Gillis  
Director of Public Affairs  
Consumer Federation of America

Jacqueline S. Gillan  
Vice President  
Advocates for Highway and Auto Safety

Janette Fennell  
Founder & President  
KidsAndCars.org

Andrew McGuire  
Executive Director  
Trauma Foundation

cc: The Honorable Henry A. Waxman, Chair  
House Energy and Commerce Committee

The Honorable John D. Rockefeller IV, Chair  
Senate Commerce, Science and Transportation Committee

The Honorable David Strickland  
Administrator, National Highway Traffic Safety Administration