1301 Pennsylvania Avenue, NW
Suite 1000
Washington, D.C. 20004
202.662.0600

Anthony Green
Director, Public Policy
agreen@safekids.org

March 13, 2013

Mr. David Strickland
Administrator
National Highway Traffic Safety Administration
NVS-112
1200 New Jersey Ave, S.E.
Washington, DC 20590

Re: Proposed Rulemaking on Minimum Sound Requirements for Hybrid and Electric Vehicles, Docket No. NHTSA-2011-0148

Dear Administrator Strickland:

Safe Kids Worldwide® writes in favor of the proposed rulemaking regarding Minimum Sound Requirements for Hybrid and Electrical Vehicles. The rule requires hybrid and electrical vehicles, which are virtually silent when traveling 18 mph or less, to make an artificial sound to signal their presence. Vehicles of the same make, model and year will have to produce the same sound. The National Highway Traffic Safety Administration (NHTSA) estimates that the proposal would result in at least 2,800 fewer pedestrian and bicyclist injuries over the life of each model year of hybrid cars, trucks and vans and low speed vehicles, as compared to vehicles without sound.[1]

The innovation is primarily aimed at aiding blind and sight-impaired pedestrians. However, other populations will benefit. Kids on foot and bike riders of all ages face a greater danger as pedestrians, and thus Safe Kids believes that this common sense, cost-effective modification should be made. We salute the leadership of the Department of Transportation (DOT) and NHTSA in proposing this rule.

INTRODUCTION

The innovation of electric and hybrid automobiles is an important and exciting new chapter in the history of auto manufacturing and driving. The role they play in reducing greenhouse gases will save lives and improve the quality of life for all of us, and this is a precious legacy for us to leave for the next generation.

It is interesting that the quiet nature of these cars has created what might be an unforeseen consequence. As a society, we usually associate quiet as a positive development in our environment. However, as pedestrians, we have grown accustomed to the sound of cars as we move around them. For blind and vision-impaired people, sound is important as they navigate street crossings and important to how seeing-eye dogs react. When it comes to younger kids, Safe Kids tells parents that the most important deterrent to back-overs and front-overs is walking around a car to ensure there are no

children in the zone. This cost-effective sound-making measure can be an additional signal to parents and kids that a motor vehicle is in their area and they should take care. For older kids, who may be distracted by texting on smartphones or riding their bikes, the sound may help them recognize the risk of a moving vehicle.

Congress recognized the problem silent cars may present when it passed the Pedestrian Safety Enhancement Act (PSEA) of 2010 by requiring NHTSA to establish a federal motor vehicle safety standard setting minimum sound requirements for hybrid and electric cars.[2]

A study conducted by the University of California, Riverside was a foundation for the law and this proposed rulemaking. It makes it clear that the blind are not alone in the risk posed by quiet cars. Lawrence Rosenblum conducted the study funded by the National Federation for the Blind. He said, "I really do feel this is an issue for more than those who are blind. We're also talking about bike riders, runners and others. Walking around with my kids in a parking lot makes it very clear that I'm using hearing and vision to determine where things are."[3]

SAFE KIDS WORLDWIDE

Safe Kids Worldwide is a global network of organizations dedicated to providing parents and caregivers with practical and proven resources to protect kids from unintentional injuries, the number one cause of death to children in the United States. Safe Kids works with an extensive network of more than 600 coalitions in the U.S. and in 23 countries to reduce traffic injuries, drownings, falls, burns, poisonings and more. All of its work is evidence-based. A compelling part of Safe Kids' mission has been in dealing with the risks that exist in and around cars.

Since 1988, Safe Kids has worked with government agencies including DOT, NHTSA and the National Transportation Safety Board (NTSB), to help reduce the U.S. childhood death rate from unintentional injury—with a special emphasis on motor vehicles--by 55 percent.[4] A significant part of that improvement is from a 50% reduction in car crash fatalities in children 19 and under from 1994 to 2011.[5] There is no question that innovations encouraged by government, industry and organizations like Safe Kids are a large factor in that remarkable success.

However, unintentional injuries remain the number one cause of death of kids 19 and under, and car crashes remain the single largest contributor. In 2011, 3,933 kids 19 and under died in motor vehicle crashes.[6] Working together, we can do much more to make kids safer.

In our effort to reduce unintentional, preventable injury, it is important that we identify emerging trends leading to greater risk and, often, the new trends are ushered in by technological advancements. One example is cellular technology which has an infinite number of benefits for society, but one negative consequence is distraction from the use of this technology in inappropriate places and times. Quiet cars are another trend we must respond to. It is right that we are doing so in this rulemaking.

RISKS FROM AUTO BACK-OVERS

Auto back-overs constitute a significant risk to kids, and other vulnerable populations. The following statistics are stunning:

- In 2007, motor vehicle back-overs were associated with an estimated 99 deaths and 2,000 injuries among children ages 14 and under.[7]
- It is estimated that back-overs account for 45 percent of non-traffic crash fatalities and 20 percent of non-traffic crash injuries to children.[8]
- Approximately 39 percent of back-over deaths occurred at home in the driveway, an apartment parking lot or in a townhome complex.[9]
- Back-over fatalities disproportionately affect children under 5 years old and adults 70 or older. When restricted to back-over fatalities involving passenger vehicles, children under 5 account for 44 percent of the fatalities, and adults 70 and older account for 33 percent.[10]

While sight is the primarily tool we use to prevent such injuries and deaths, sound is another sense we use and the sound-making measure will help us as hybrid and electric cars grow their share in the marketplace.

INTRODUCTION OF HYBRID AND ELECTRIC SUVs

In addition, manufacturers are now putting more and more hybrid and electric SUVs in the marketplace. SUVs are motor vehicles that create a greater vision problem. SUVs cause a disproportionate number of back-overs and front-overs.[11] Thus, as hybrid and electric SUVs continue to gain popularity, we may see the risk grow. This intensifies the need for the sound making remedy proposed here.

As stated earlier, we have grown accustomed to the sound of cars in the way we walk and respond around cars. The lack of sound disables parents and caregivers in their vigilance to protect their kids from moving vehicles. It is sensible to give parents, caregivers, drivers and kids the tools they need to use all relevant senses we possess.

TEENAGE PEDESTRIANS AT RISK

Safe Kids recently studied the state of pedestrians ages 19 and under in "Walking Safely: A Report to the Nation."[12] The most significant finding was that the leading at-risk age group are now teens. The death rate among older teens is twice the rate compared to younger children. The report hypothesized that the increase in pedestrian injury affecting teenagers is related to distraction caused by the use of electronics and hand-held devices while walking. As the presence of quiet cars grows on roads, highways, parking lots and home driveways, the risk faced by this older group of pedestrians will increase. The combination of distraction and the lack of sound may prove dangerous. (Obviously, a pedestrian texting on a smartphone and listening to music simultaneously will not be aided by the artificial sound.)

BICYCLISTS AT RISK

People on bicycles are also compromised by motor vehicles that are silent. Even more than others, they must use a full range of sensory tools to navigate roads safely. This includes sound.
NHTSA research shows that a hybrid vehicle involved in a low speed maneuver, defined as backing up, making a turn, slowing or stopping, entering or leaving a parking space, or starting in traffic, is more likely than a traditional vehicle to be involved in a collision with a cyclist. "We believe that this difference in accident rates is mostly attributable to the pedestrians' inability to detect these vehicles by hearing them during these maneuvers," concluded NHTSA.[13] Safe Kids believes this makes sense.

Bike riding is part of a kid's quality of life, but can cause death and injury:

- Each month, three out of four children in the U.S. ride a bicycle.[14]
- In 2010, 112 children ages 19 and under died from cycle-related incidents.[15]
- In 2011, 289,473 children ages 19 and under were involved in nonfatal cycle-related incidents and received treatment at a U.S. hospital emergency department.[16]
- Every two minutes, a child is treated in an emergency department for an unintentional cycle-related injury.[17]
- More children ages 5 to 14 are seen in emergency departments for injuries related to biking than any other sport.[18] [19] [20]

COST-BENEFIT ANALYSES

Safe Kids is mindful that there is an associated cost when engineering and technological additions are made in the interest of safety. The rulemaking states that the estimated cost per motor vehicle is $30. The agency was thorough in making the case about the needs of and positive effect on the blind and visually-impaired community. We hope that the addition of this narrative about the positive impact the addition of sound on silent cars could have on the capacity for parents and caregivers to prevent their kid's injury and death builds on the case that the benefit vastly outweighs the cost.

CONCLUSION

Based on the foregoing, we support this rulemaking. We believe that the inexpensive innovation of adding sound to quiet cars will save the lives of children on foot and bikes—in addition to the population of blind and visually disabled pedestrians—especially as electric and hybrid cars increase in popularity. We urge adoption of the proposed rule.

Sincerely,

Kate Carr
President and CEO
Safe Kids Worldwide

SOURCES.

[1] Requirements for Hybrid and Electric Vehicles, National Highway Traffic Safety Administration, press release, January 7, 2013, available at http://www.nhtsa.gov/About+NHTSA/Press+Releases/DOT+Proposes+New+Minimum+Sound+Requirements+for+Hybrid+and+Electric+Vehicles, last accessed 03.06.2013.

[2] S.841, 111th Congress, Pedestrian Safety Enhancement Act, December 17, 2010, available at http://www.govtrack.us/congress/bills/111/s841/text, last accessed 02.21.2013.

[3] Hybrid Cars Are Harder to Hear, University of California, Riverside, Press Release, April 28, 2008, available at http://newsroom.ucr.edu/news_item.html?action=page&id=1803, last accessed. 03.06.2013; See also, Rosenblum, L., "Are Hybrid Cars Too Quiet?" abstract, Lawrence D. Rosenblum University of California, Riverside, May 22, 2009, available at http://www.acoustics.org/press/157th/rosenblum.html, last accessed 03.06.2013

[4] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). National Center for Injury Prevention and Control Website. Available from: http://www.cdc.gov/injury/wisqars/index.html, last accessed January 2013.

[5] National Highway Traffic Safety Administration, FARS, Available at: http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectYear.aspx, last accessed March 11, 2013.

[6] National Highway Traffic Safety Administration, FARS, Available at: http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectYear.aspx, last accessed February 27, 2013.

[7] National Highway Traffic Safety Administration. Traffic safety facts, crash stats: not-in-traffic surveillance (NiTS) 2007-children. DOT HS 811 116. Washington, DC: National Highway Traffic Safety Administration, National Center for Statistics and Analysis.

[8] National Highway Traffic Safety Administration. Traffic safety facts, crash stats: not-in-traffic surveillance (NiTS) 2007-children. DOT HS 811 116. Washington, DC: National Highway Traffic Safety Administration, National Center for Statistics and Analysis.

[9] Insurance Institute for Highway Safety, Highway Loss Data Institute. Q&A: back-over crashes. Insurance Institute for Highway Safety, Highway Loss Data Institute Website, June 2011. Available from: http://www.iihs.org/research/qanda/back-over.html. Accessed October 26, 2011.

[10] National Highway Traffic Safety Administration, "Fatalities and Injuries in Motor Vehicle Backing Crashes," November 2008, available at http://www-nrd.nhtsa.dot.gov/Pubs/811144.pdf, last accessed 02.21.2013.

[11] Vehicle Backover Avoidance Technology Study Report to Congress, National Highway Traffic Safety Administration, November 2006, available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDIQFjAA&url=http%3A%2F%2Fwww.nhtsa.gov%2FDOT%2FNHTSA%2FVehicle%2520Safety%2FStudies%2520%26%2520Reports%2FAssociated%2520Files%2FBackoverAvoidanceTechStudy.pdf&ei=VTouUcfcJefM2gXz9YHgDQ&usg=AFQjCNECRnNaMxFL1kltordFdWnl9n49ag&sig2=Nl_MQYCc5qXgQIdqMPoo7g&bvm=bv.42965579,d.b2U&cad=rja, last accessed February 27, 2013.

[12] Mickalide AD, Rosenthal KM, Green A, Baker JM. , "Walking Safely: A Report to the Nation," Washington, DC: Safe Kids Worldwide, August 2012.

[13] Federal Motor Vehicle Safety Standards; Minimum Sound Requirements for Hybrid and Electric Vehicles, proposed rulemaking, National Highway Traffic Safety Administration, January 14, 2013, available at https://www.federalregister.gov/articles/2013/01/14/2013-00359/federal-motor-vehicle-safety-standards-minimum-sound-requirements-for-hybrid-and-electric-vehicles, last accessed 03.06.2013.

[14] Dellinger AM, Kresnow M. Bicycle helmet use among children in the United States: the effects of legislation, personal and household factors. *J Safe Res*. 2010; 41: 375-380.

[15] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). National Center for Injury Prevention and Control Website. Available from: http://www.cdc.gov/injury/wisqars/index.html. Accessed February 28, 2013.

[16] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). National Center for Injury Prevention and Control Website. Available from: http://www.cdc.gov/injury/wisqars/index.html. Accessed February 28, 2013.

[17] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). National Center for Injury Prevention and Control Website. Available from: http://www.cdc.gov/injury/wisqars/index.html. Accessed June 6, 2012.

[18] Consumer Product Safety Commission. National survey on bike helmet usage: helmet use on the rise, but half of all riders still not wearing helmets. Washington, DC: Consumer Product Safety Commission; 1994 June.
[19] Brain Injury Association of America. Bicycle Safety. [Fact Sheet]. McLean, VA: Brain Injury Association of America; 2001 April.
[20] Brain Injury Association of America. Brain injury prevention. Brain Injury Association of America Website. Available from: http://www.biausa.org/SC/prevention.htm. Accessed on October 21, 2011.