



September 21, 2022

National Highway Traffic Safety Administration
1200 New Jersey Avenue SE
Washington, DC 20590

RE: Docket No. NHTSA-2022-0067; General Motors – Receipt of Petition for Temporary Exemption from Various Requirements of the Federal Motor Vehicle Safety Standards for an Automated Driving System-Equipped Vehicle

To the National Highway Traffic Safety Administration:

The Harkin Institute for Public Policy & Citizen Engagement (The Harkin Institute) thanks NHTSA for the opportunity to comment on GM's petition for temporary exemption from various safety standards for an automated driving system-equipped vehicle, the Cruise Origin. The Harkin Institute is an organization that serves as a venue and catalyst for dynamic non-partisan research, learning, and outreach to promote understanding of the policy issues to which Senator Tom Harkin devoted his career.

We appreciate NHTSA's attention to accessibility in its consideration of GM's petition. Over 61 million Americans, nearly 26% of the U.S. population, identify as having a disability.ⁱ Of that total number of disabilities, 13.7% are mobility-related, 10.8% are cognitive-related, 6.8% have difficulties doing errands alone, 5.9% are d/Deaf or hard of hearing, 4.6% are blind or low vision, and 3.7% are self-care related. The future of autonomous vehicles (AVs) has the potential to change the transportation industry, especially for people with disabilities. When Senator Tom Harkin (retired) led the passage of the Americans with Disabilities Act in 1990, the automotive and aviation industry was already established. Over 30 years later, little has changed in terms of accessibility. Under Title II and Title III of the ADA, people with disabilities legally have a right to access the same transportation opportunities as people without disabilities.ⁱⁱ However, transportation remains too inaccessible and exclusionary for millions of Americans who cannot drive—over 25 million Americans reported having a travel-limiting disability.ⁱⁱⁱ At the same time, wheelchair-adapted vehicles remain prohibitively expensive and are not affordable for most users. These challenges will only grow in the years to come—as the United States population ages, the number of people with transportation-related disabilities will also increase. While AVs have the potential to significantly improve access to transportation, it will not eradicate the need for accessible mass transit throughout the country.^{iv}



Autonomous vehicles should be born accessible.^v AVs present an opportunity for accessibility and universal design to be at the forefront of this new design; giving people with disabilities full transportation accessibility.

The Harkin Institute has had a series of discussions with Cruise on its efforts and investment in developing more accessible and inclusive transportation options through its autonomous vehicles. These have included the design of a wheelchair-accessible variant (WAV) prototype for the Cruise Origin, development of a variety of accessibility features in their app and service, and prioritization of working with the a11y community in product testing and feature development. The Harkin Institute submits these comments in response to the questions NHTSA poses in paragraph 14 of the Statement on Terms.

I. How should NHTSA consider accessibility in applying appropriate conditions to an exemption if it were granted? Should NHTSA impose conditions on grants of part 555 exemptions to learn more about specific actions that manufacturers and operators of ADS-equipped exempted vehicles are planning, or have taken, to further the attainment of accessibility and equity goals?

If this exemption is found to be in the public interest, it is because it would benefit people with disabilities. Therefore, accessibility needs to be a requirement. NHTSA should require that all safety elements meet the needs of all people with disabilities and exemptions should only be granted if the AVs are fully accessible for passengers, pedestrians, and bicyclists.

The Harkin Institute stands by the idea that all new technology should be born accessible. NHTSA should make it a requirement that all AVs seeking these exemptions be wheelchair accessible. The AVs should be usable by both folding wheelchairs and electric/motorized/power wheelchairs with strenuously tested automatic wheelchair securements, lifts, and ramps.

GM's petition states that it is "collaborating with stakeholders within the accessibility community to enable the Origin to carry people in wheelchairs." The petition does not explain whether the regular Origin or a future vehicle will be wheelchair accessible. GM's petition should only be granted if the vehicle they ultimately plan on manufacturing is, in fact, wheelchair accessible for all wheelchair users.

II. Should NHTSA seek information from manufacturers granted an exemption as to how they ensure that their ride-hailing services comply with any applicable Americans with Disabilities Act (ADA) requirements, how many vehicles would be wheelchair accessible, how they reach people with disabilities to offer access to ride sharing services, or whether the exempt vehicles provide other accommodations for individuals with disabilities, such as communication and/or human-machine interface (HMI) features

designed for individuals with sensory disabilities (such as sight or hearing) or cognitive disabilities?

Yes – NHTSA should require manufacturers to provide information about how they will make AVs fully accessible and safe for all people with or without disabilities. All federal requests relating to AVs need to require manufactures to demonstrate that the AVs will be fully accessible for people with diverse disabilities. All technology products must comply with Section 508 of the Rehabilitation Act.

GM's proposed use of AVs in ride-hailing services makes it a private entity engaged in providing public transportation which is subject to Title III of the ADA. The Department of Transportation has the authority to issue regulations in accordance with the ADA's stated purpose of eliminating discrimination against people with disabilities. NHTSA has a responsibility to seek the information necessary to properly evaluate GM's claims that the Cruise Origin will improve access to transportation for people with disabilities.

Cruise has shared with The Harkin Institute a number of development features that will improve accessibility for blind, low vision, d/Deaf and hard of hearing customers, including native iOS voiceover support for the Cruise app, improved wayfinding – including by giving blind or low-vision users the ability to honk the vehicle horn to identify the vehicle, walking directions from a user's location to the pickup point, two-way communications with Cruise Customer Support before and during the ride, as well as post-ride way finding support. For riders who are d/Deaf or hard of hearing, Cruise has a Real-Time Text (RTT) service for Cruise Customer Support, prominent displays of the vehicle's unique name on all sides of AV, as well as visual trip announcements on the in-car tablet screens and mobile app.

III. Should NHTSA require grantees to report on efforts, such as research or community outreach, that the manufacturer is planning, or has taken, to increase the likelihood that accessibility goals will be met?

Yes – NHTSA should require exemption grantees to report on their outreach and stakeholder engagement activities since one of GM's main arguments for developing AVs is increased accessibility for people with disabilities. Manufacturers need to seek input from a wide cross-section of people with disabilities whether from advisory committees or disability-led organizations, like the U.S. Access Board, The National Council on Disability, or American Association of People with Disabilities. There is no substitute for the lived-experiences and voices of people with disabilities. Additionally, manufacturers should explore opportunities for AVs in more rural settings which could provide reliable transportation to the millions of disabled Americans who now rely on family members for transportation. If NHTSA decides to require outreach and engagement with the disability community as a condition for this exemption, providing a framework for outreach and engagement would help ensure the process is meaningful and inclusive for everyone.

Cruise's first external UX study was done in partnership with the National Federation of the Blind, American Council of the Blind, and the San Francisco Lighthouse for the Blind. Over the course of several months, Cruise and its partners engaged in deep-dive analyses of existing barriers in shared mobility services that included user interviews, "ride-alongs" with existing mobility providers, and focus groups. Cruise also continues to work directly with organizations like the National Federation of the Blind, the American Council of the Blind, the United Spinal Association, the American Association of People with Disabilities, the National Disability Institute, and others to inform their direction.

IV. Conclusion

The Harkin Institute thanks NHTSA for seeking public comment on the accessibility considerations in GM's petition. We agree with GM that AVs have the potential to expand transportation options for people with disabilities. Cruise's efforts represent important progress, but more development and research are needed to meet the goal of fully accessible transportation for all people with disabilities.

With continued investment from the industry and clear expectations and goals from NHTSA, AVs will provide a new and more accessible transportation option for people with disabilities in the future. We look forward to continuing to engage in the transformation of today's transportation sector into one that is accessible and inclusive for all users.

Sincerely,

Daniel Van Sant
Director of Disability Policy

Kathryn Hansen
Legal Research Assistant

ⁱ Centers for Disease Control and Prevention. "Disability Impacts All of Us".

<https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html>.

ⁱⁱ ADA National Network, "An Overview of the Americans with Disabilities Act," 2015.

ⁱⁱⁱ Bureau of Transportation Statistics. "Travel Patterns of American Adults with Disabilities," 2018.

https://www.bts.gov/sites/bts.dot.gov/files/docs/explore-topics-and-geography/topics/passenger-travel/222466/travel-patterns-american-adults-disabilities-9-6-2018_1.pdf.

^{iv} National Council on Disability. "Self-Driving Cars: Mapping Access to a Technology Revolution," 2015.

https://www.ncd.gov/sites/default/files/NCD_AutomatedVehiclesReport_508-PDF.pdf.

^v Disability Rights Education & Defense Fund and Disability Rights California. "Comments on Proposed Decision of California PUC Commissioner Shiroma Authorizing Deployment of Autonomous Vehicle Passenger Service."

<https://dredf.org/wp-content/uploads/2020/11/2020-11-02-Letter-to-CPUC-from-DREDF-and-DRC-re-AV-Accessibility.pdf>.