

May 31, 2023

THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
Consumer Protection and Enforcement Division
505 Van Ness Avenue
San Francisco, CA 94102-3214
Submitted via email at: AVPrograms@cpuc.ca.gov

SUBJECT: HAAS Alert's Comments on Draft Resolution TL-19144 to Approve Waymo LLC's Application for Phase 1 Driverless Autonomous Vehicle Passenger Service Deployment Permit

Dear Commissioners,

HAAS, Inc. (dba "HAAS Alert") writes to comment on Draft Resolution TL-19144 approving Waymo LLC's ("Waymo") application for a permit to participate in the Public Utilities Commission's ("Commission") Phase I Driverless Autonomous Vehicle ("AV") Passenger Service Deployment program. We encourage the Commission to consider additional safety measures that can be incorporated into driverless autonomous vehicle passenger service deployments to make city of San Francisco streets safer for all.

As background, HAAS Alert works with public safety departments, transportation agencies, incident responders, and roadway maintenance contractors ("Roadway Organizations") to provide their people with an additional layer of protection while working in the roadway. Despite widespread use of vehicle warning lights, sirens, safety vests, physical signage and barriers, and other safety protocols, these people keeping our communities safe and roads operational and efficient are themselves at tremendous risk of personal injury from approaching vehicles. The number of collisions and fatalities involving first responders and roadway workers unfortunately remain at an all-time high.

This safety concern is not limited to human-driven vehicles. Over the past few months, the city of San Francisco has experienced numerous examples of driverless vehicles impeding active emergency response situations and work zones. In other cities, driverless vehicles have blocked intersections when detecting a responding emergency vehicle, causing delay in the emergency response.

A highly effective means of reducing these hazardous situations – Digital Alerting – has been adopted by over 2,000 Roadway Organizations across North America, including many in the state of California. Last week, global automobile manufacturer Stellantis announced that 1.8 million of its North American vehicles are equipped with Digital Alerting capabilities¹.

Digital Alerting solutions today comprise a real-time hazard platform that captures unplanned, dynamic, or short-duration events impacting roadway mobility, such as responding emergency vehicles, road maintenance, tow trucks, and disabled vehicles. When passenger or commercial vehicles are approaching these hazards, the Digital Alerting solution sends a real-time notification to the approaching vehicle far enough in advance for the driver to make a safe

¹ <https://www.stellantis.com/en/news/press-releases/2023/may/safely-aware-industry-leading-v2x-activation-equips-1-8-million-stellantis-vehicles-with-emergency-vehicle-alert-system>

maneuver. In the context of a driverless vehicle, the autonomous vehicle driving system can use this information to take appropriate action.

Academic research and real-world deployments of Digital Alerting have shown that collisions can be reduced by up to 90%². In December 2021, HAAS Alert partnered with an autonomous vehicle manufacturer to demonstrate how an autonomous vehicle can incorporate a Digital Alerting solution into its automated driving system and pull the vehicle over when alerted of an approaching emergency vehicle³.

As a steward of safety for first responders, incident response, and roadway operators around the country, HAAS Alert strongly believes that Digital Alerting solutions should be a mandatory, additional safety feature for these vehicles to deliver the safest passenger service to end users and to reduce incidents with other roadway users.

HAAS Alert fully supports the expansion of driverless autonomous vehicle passenger services that incorporate Digital Alerting.

Respectfully submitted,



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² University of Minnesota, Christopher Jose Drucker, "An epidemiological approach to emergency vehicle advanced warning system development: a two-phase study", <https://conservancy.umn.edu/handle/11299/162638>

³ <https://www.haasalert.com/news/haas-alert-fav-summit-news>