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COMMENTS OF THE ASSOCIATION OF GLOBAL AUTOMAKERS, INC, CONCERNING THE DEPARTMENT OF MOTOR VEHICLE'S PROPOSED REGUALTIONS FOR THE TESTING AND DEPLOYMENT OF AUTONOMOUS VEHICLES

April 24, 2017

The Association of Global Automakers, Inc. (Global Automakers)[1] appreciates the opportunity to provide these comments in response to the California Department of Motor Vehicles' (DMV) March 10, 2017, notice of proposed action to amend sections 227.00 *et seq.* and to adopt sections 228.00 *et seq*. in Article 3.8, Chapter 1, Division 1, Title 13 of the California Code of Regulations concerning automated vehicles (the Proposed Rule). The amendments to sections 227.00 *et seq.* change existing regulations concerning the testing of automated vehicles, while sections 228.00 *et seq*. would establish a new regulatory regime for the post-testing "deployment" of automated vehicles (*i.e.,* the sale or lease of automated vehicles to the public and the operation of such vehicles on the public roads).

I. Introduction

Advancements in connected and automated vehicle technology present significant opportunities for saving lives, enhancing mobility, improving transportation efficiency, and reducing fuel consumption and associated emissions. However, despite being at the beginning of a transportation revolution, such transformations are not inevitable or accidental. Public policy can either spur investment and innovation, or hinder them, depending on which policy choices are made. As manufacturers continue to invest significant resources in the development of automated vehicle systems, it is important that policymakers provide a regulatory environment that will spur investment and innovation in this life-saving technology.

There are a number of challenges to the development of policy as it relates to this nascent technology, and while we have a number of fundamental concerns with certain aspects of the proposed regulations, we would first like to recognize and express appreciation for the DMV's

[1] The Association of Global Automakers represents the U.S. operations of international motor vehicle manufacturers, original equipment suppliers, and other automotive-related trade associations. Our members include American Honda Motor Co., Aston Martin Lagonda of North America, Inc., Ferrari North America, Inc., Hyundai Motor America, Isuzu Motors America, Inc., Kia Motors America, Inc., Maserati North America, Inc., McLaren Automotive Ltd., Nissan North America, Inc., Subaru of America, Inc., Suzuki Motor of America, Inc., and Toyota Motor North America, Inc. Global Automakers works with industry leaders, legislators, regulators, and other stakeholders in the United States to create public policies that improve motor vehicle safety, encourage technological innovation and protect our planet. Our goal is to foster an open and competitive automotive marketplace that encourages investment, job growth, and development of vehicles that can enhance Americans' quality of life. For more information, visit www.globalautomakers.org.

continued public engagement and careful consideration of comments submitted throughout the process. We believe the Department has made a number of significant improvements to the draft regulations as a result of this ongoing dialogue, and it is important that the DMV continue in this effort as it seeks to finalize its regulations.

As the Department is aware, in September 2016, the National Highway Traffic Safety Administration (NHTSA) published its Federal Automated Vehicle Policy (the Federal Policy) to provide guidance to manufacturers and other entities through the establishment of best practices related to the safe pre-deployment design, development, testing, and deployment of Highly Automated Vehicles. In addition, the agency established a safety assessment process to provide necessary "safety assurances" to the public that the federal government was taking proactive steps to address the safety of automated vehicles, by adopting a flexible, nimble approach to policy that can adapt with the pace of technology. The Federal Policy also includes a Model State Policy (Model Policy) intended to provide guidance to state policymakers in the development of laws and regulations related to the testing and operation of automated vehicles on public roads.

The issuance of the Federal Policy was an important first step in helping ensure a consistent national approach, and while we have a number of outstanding recommendations for improving the Federal Policy, we believe it is critically important that California consider the role of NHTSA as it finalizes it regulations. With the potential for automation to help reduce the number of fatalities occurring on U.S. roads each year, we must ensure greater uniformity that allows vehicles to be developed for sale and use across all fifty states. To do so, the conversation needs to continue to be national in scope.

In providing comment in response to the Proposed Rule, we recognize the challenge presented to the DMV in balancing the legislative requirements of SB1298 in ensuring safety while at the same time providing opportunities for continued innovation. In fact, the DMV has taken a number of positive improvements since the issuance of the discussion draft. For instance, we support the clarification that the regulations apply only to Levels 3 through 5 of the Society of Automotive Engineers (SAE) Standard J3061: Taxonomy & Definitions for Automated Driving Systems, that the DMV moved away from a third-party certification model, and that the proposed amendments to testing regulations not prohibit the evaluation of "driverless vehicles" on public roads.

Nevertheless, despite these positive improvements, we continue to believe that the proposed regulations go too far in a number of respects, and are concerned that the approach taken will unnecessarily impede the development, testing and deployment of automated vehicle technology. This is of primary concern with respect to the new sections 228.00 *et seq.* pertaining to "deployment," which will be discussed in more detail in the comments that follow.

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II. General Policy Concerns

Global Automakers provides specific comments on each of the individual provisions of the proposed regulations in Section III below. However, in order to frame that discussion, we offer the following broad comments on the policy direction taken by the DMV in these proposed regulations.

A. The Proposed Regulations Could Prevent the Sale or Operation in California of Vehicles that Are Legal in Other States

There is a consensus view among stakeholders that states should avoid creating a fractured regulatory environment in the United States concerning automated vehicles. This is particularly important with respect to the post-testing sale and deployment of vehicles. Global Automakers has significant concerns with the DMV's proposal to establish a "Permit to Deploy" as a mechanism to regulate the sale, lease and operation of automated vehicles, and strongly recommends that the Department reconsider this approach. The Proposed Rule would effectively establish a two-step process for vehicle safety certification. A manufacturer would need to certify its automated vehicles as complying with all applicable Federal Motor Vehicle Safety Standards (FMVSSs), and then, even if those are certified to the federal standards and are thus legal to sell and operate in the U.S., the manufacturer must separately obtain a "Permit to Deploy" from California. That permit would be conditioned on the manufacturer meeting certain requirements, many of which include design and performance criteria. No state has up to now sought to arrogate to itself such broach authority over motor vehicle safety.

We believe this could not only prevent the sale or operation in California of automated vehicles that are legal in other states, but it also sets a dangerous precedent for the development of automated vehicle policy across the United States. Any state regulations that create different standards among the different states would be entirely unworkable. Therefore, manufacturers, dealers and eventually consumers could face a circumstance where they cannot sell or operate certain AVs in California even though they are perfectly legal in other states. Similarly, given the broad definition of "deployment," which is discussed in more detail below, a consumer from outside California could be prevented from crossing the state border in an automated vehicle that was legally purchased in another state.

The primary advantage for federal standards related to the design and performance of motor vehicles is to allow manufacturers to design, build and sell one vehicle across all 50 states. Although NHTSA has decided (correctly in our view) that now is not the time to establish prescriptive design and performance standards for automated vehicles, NHTSA nonetheless continues to have authority to regulate and address issues where there is determined to be an unreasonable risk to motor vehicle safety – as outlined in the Federal Policy. Indeed, NHTSA has already exercised this authority with respect to automated vehicle systems when it issued a special order to Comma.ai requesting additional information related to the development of its

"comma one" product, a system which the company has stated would allow certain vehicles to operate in semi-autonomous mode through a combination of lane keep assist and adaptive cruise control.[2] We believe it is important therefore that California identify a policy framework that does not unnecessarily or arbitrarily limit the design and performance of technology from the outset.

As discussed below, we strongly recommend that the DMV reconsider the concept of a "Permit to Deploy" and instead consider other regulatory approaches to achieve the necessary assurances that safety is being addressed.

B. The Proposed Regulations Would Improperly Codify Aspects of the Federal Automated Vehicle Guidance.

Global Automakers appreciates the extent to which the California DMV has reconsidered its approach in a number of areas, and has sought to more closely align aspects of its proposed regulations with the NHTSA Federal Policy. These include, for example, providing accommodations as it relates to the sensitivity of confidential business information included as part of any Safety Assessment Letter (SAL) provided to NHTSA. In addition, we also support the DMV's approach to not require SAL for testing while a driver is present as this will help address the potential for significant administrative burden through duplicative reporting.

However, we do have concerns that the Proposed Rule would improperly codify certain aspects of the NHTSA Federal Policy. Despite the recommendation that "DOT strongly encourages States to allow DOT alone to regulate the performance of Highly Automated Vehicle technology and vehicles,"[3] the Proposed Rule has established more than ten prerequisites to deployment that we believe do just that.[4]

While some of these proposed requirements have been adapted or modified from the Federal Policy, it is important to emphasize that the federal guidance is intended to be flexible and nimble to allow for technology to develop. As noted by NHTSA, the Guidance "is not intended for States to codify as legal requirements for the development, design, manufacture, testing, and operation of automated vehicles."[5] We are concerned therefore that key aspects of the DMV approach is inconsistent with the spirit of the Policy (by codifying performance requirements of automated vehicles) and that this will, at a minimum, create a bifurcated regulatory environment for technologies that do not exist outside of the research environment.

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[2] *See* https://www.scribd.com/document/329218929/2016-10-27-Special-Order-Directed-to-Comma-ai.
[3] Federal Policy at 37.
[4] These requirements are Sections 228.06 (a)(5), (a)(6), (a)(7), (a)(8)(a), (a)(8)(B), (a)(8)(C), (a)(9), (a)(10), (b)(1), (b)(2), and (b)(3), which we discuss in more detail below.
[5] Federal Policy at 11.

We therefore strongly recommend California reconsider its approach by not seeking to address matters of vehicle performance and design in its regulations for the operation of automated vehicles in the state. Instead, we encourage the Department to establish the necessary relationships with NHTSA to help provide assurances that vehicles operating in the state are not creating an unreasonable risk to safety.

C. The Proposed Regulations Improperly Encroach on NHTSA's Authority over Motor Vehicle Safety

We have questions about the extent to which the proposed regulations are duplicative or extend into NHTSA's authority to regulate motor vehicle safety. We note that the DMV appears to have intended to recognize the traditional division of authority between federal and state regulators on matters of motor vehicle safety, where it states that "the proposed regulations recognize the division of regulatory responsibility between federal and state jurisdictions and incorporate federal safety rules and guidelines as a basis for meeting the safety obligations placed on the department under Vehicle Code §38750."[6] However, we disagree that the Proposed Rule effectuates that goal.

In fact, in a number of areas, the regulations would set design criteria for automated vehicles, and would allow the DMV to ban the sale or operation of automated vehicles based on the DMV's own safety assessment. For example, the regulations would (among other things): (1) impose design requirements for AV event data recorders, (2) include requirements for a communications link in AVs with no human driver; (3) empower the DMV to deny or revoke a manufacturer's "permit to deploy" for "any act or omission" which the DMV determines (based on no defined criteria) "creates a safety risk to the public," which ostensibly could include the power to determine that the automated vehicles is not safely designed, even though it is certified by NHTSA; (4) impose data transfer requirements for automated vehicles in the event of a crash; (5) create cybersecurity requirements; and (6) establish requirements and conditions related to remote operators. The DMV would also be provided with authority to revoke a permit to deploy based upon the "performance of the vehicles if the department determines the manufacturer's vehicles are not safe for the public's operation," irrespective of whether NHTSA has made a determination as to whether the vehicle would present an unreasonable risk to safety.

Similar to the recommendation above, we request that the DMV not seek to address issues that are otherwise duplicative of the role of the federal government in regulating the safe design and performance of motor vehicles. To ensure a uniform national approach to automated vehicles we believe it is important for the Department to defer to NHTSA on matters related to vehicle performance and design and work closely with the agency to ensure the necessary safety assurances are in place.

[6] ISOR at 2.

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III. Comments on Individual Sections of Proposed Regulations

With these broad policy issues in mind, we offer the following comments on certain specific sections of the proposed regulations.

Comments on Article 3.7: Testing of Automated Vehicles

Section 227.02. Definitions

It is important that consistent definitions are used in the development of policy related to automated vehicle technology and Global Automakers supports the DMV's efforts to more closely align with SAE Standard J3061. More specifically, we support the proposed changes to the definitions of "autonomous mode" and "autonomous test vehicle" in this section. By clarifying that the regulations would only apply to SAE Levels 3, 4, and 5 vehicles, we believe the DMV has not only helped address potential ambiguity regarding the scope of the regulations, but has also provided greater adaptability in terms of the ability to develop polices to address specific aspects of automation that may not be possible through a one-size-fits-all definition.

We have concerns however with both the definition and concept of a "remote operator" and the California-specific requirement that a person have the ability to "communicate" with vehicle occupants in the vehicle through a communications link. This definition come into play with respect to the requirement for a communication link to a remote operator, which, as discussed below, we think is inappropriate for the DMV to require.

Section 227.18. Manufacturer's Testing Permit and Manufacturer's Testing Permit – Driverless Vehicles

Automated vehicles have the potential to provide significant mobility benefits. We therefore appreciate the DMV removing the explicit prohibition on the testing of driverless vehicles, as that restriction would have needlessly stifled innovation in this area. Global Automakers therefore supports the proposed testing regulations providing a path for the testing (and operation) of automated vehicles without the presence of a driver.

Section 227.38. Manufacturer's Permit to Test Autonomous Vehicles that do not Require a Driver.

In general, we support the DMV's balanced approach to the development of regulations for testing automated vehicles, however, we have a number of comments that we believe are important to address prior to the Department issuing its final regulations. Specifically:

Section 227.38(a) establishes a requirement to notify and coordinate with local authorities in each jurisdiction in which driverless vehicles are being tested. This approach is an improvement over the draft regulations, which would have required ordinances from all such jurisdictions. While we believe that notification and coordination with local authorities is important to consider, the proposed regulations do not provide sufficient clarity in terms of the expected level of coordination, and this has the potential to create significant uncertainty for testing. In addition, we also recommend that the DMV compile and maintain a list of local authorities that may need to be notified prior to the testing of automated vehicles in a particular area. This is to ensure that manufacturers are aware of the necessary points of contact for each jurisdiction.

Section 227.38(c) would create a requirement for a "communication link" to enable communication between the operator and any passengers in a driverless vehicle in the event of technology failure. It also requires that manufacturers "continuously monitor" the status of the vehicle and provide an explanation for how this monitoring would occur. We believe it is inappropriate in this case for California DMV to be directly or indirectly imposing design requirements for automated vehicles. While the NHTSA Federal Policy introduces the concept of a "remote dispatcher" or "central control authority" for HAVs intended to operate without a human driver or occupant, it is important to recognize that the intent of the agency guidance is to provide a nimble and flexible approach to technology. If, for example, a manufacturer designs its system such that it can transition to a minimal risk condition where the system detects that it cannot operate safely, it may not be necessary for there to be a "remote operator" as suggested by the DMV regulations. Although a manufacturer may opt to implement additional countermeasures, we believe the DMV should not seek to codify the NHTSA guidance and create specific requirements in this regard.

Section 227.38(e) includes a detailed requirement for a "law enforcement interaction plan." While we agree that it is important for testers to interact with law enforcement on the testing, the detailed requirements are too rigid and overly-prescriptive. Per Section 227.38(a), testers will be coordinating with the localities in which the testing is to take place, and that coordination will necessarily include the sharing of information envisioned in this section.

Section 227.38(f) would require that testers not only have a training program for its remote operators, but would also require that the tester provide the DMV with an outline and description of that program. We believe this provision creates an unnecessary reporting requirement, and may require testers to divulge sensitive confidential business information. We do not see how the DMV would need any specific information concerning the training program beyond a self-certification that the necessary training has been provided.

Section 227.38(g) provides:

> A Manufacturer shall submit a copy of the safety assessment letter, excluding any confidential business information that has been submitted to the National Highway Traffic Safety Administration (NHTSA), as specified in the "Vehicle Performance Guidance for Automated Vehicles" in the Federal Automated Vehicles Policy

We appreciate the fact that any Safety Assessment Letter (SAL) provided to the DMV could be redacted to omit confidential business information. However, it is important to recognize that there is no federal *requirement* that a manufacturer submit an SAL to NHTSA as a prerequisite to testing or deployment, and the DMV regulations should not codify such a requirement. It is therefore our understanding that the DMV's intent is to require an SAL only if one has been provided to NHTSA. The DMV should clarify this requirement in the final rule.

Sections 227.40(b), 227.42(a)(3) and 227.42(b)(5).

These sections of the proposed regulations pertain to the DMV's refusal to grant a testing permit, and the suspension or revocation of a permit. In each case, one basis for a refusal, suspension or revocation of a testing permit would be "any act or omission of the manufacturer or one of its agents, employees, contractors, or designees which the department finds makes the conduct of autonomous vehicle testing on public roads by the manufacturer an unreasonable risk to the public."

Global Automakers has concerns that this language is overly broad, and would give the DMV limitless and undefined authority to deny, suspend or revoke a permit for any perceived safety shortcoming. We believe it would be inappropriate for the DMV to use such broad authority to make independent determinations concerning the performance and design of motor vehicles. NHTSA has the necessary authority to investigate and address areas where there are perceived to be conditions that create an unreasonable risk to safety, and has in the past demonstrated its authority in this area. Moreover, any authority the DMV would have to deny or revoke a permit should be carefully circumscribed and based on a clearly-articulated standard.

Section 227.50. Reporting Disengagement of Autonomous Mode.

Global Automakers is opposed to the requirement in Section 227.50 that testers report data concerning disengagements to the DMV. We believe this regulation imposes an unnecessary paperwork burden on testers and question why the DMV has a legitimate need for this information.

Disengagement reports absent context are irrelevant in assessing the safety of the automated systems being tested, and can be very misleading to the public. Irrespective of whether or not one automated vehicle experiences more disengagements than another automated vehicle does not mean it is less safe. Indeed, the opposite may be true, as frequent disengagements may show that the tester is evaluating the limitations of the systems, and thereby gathering more useful information on how the systems can be improved. Public commentary and media coverage following the recent publication of the DMV annual disengagement report shows a fundamental misunderstanding of what these disengagements mean.

Comments on Article 3.8. Deployment of Autonomous Vehicles

Section 228.02. Definitions

Global Automakers provides the following remarks on the DMV's proposed regulations for the deployment of automated vehicles.

> ***Section 228.02(a) definition of "Autonomous technology data recorder."*** As outlined in our discussion of Section 228.06(a)(5) below, we believe that the requirements for an "autonomous vehicle data recorder" conflict with current federal law, as they impose requirements for an "event data recorder" that go beyond those found in NHTSA regulations. They also improperly impose automated vehicle design requirements on manufactures. That said, we understand that state law requires the DMV develop regulations to address this issue. However, despite this, we have significant concerns that the requirements set forth in the proposed regulations go above and beyond what is required under the statute. The DMV should not adopt event data recorder requirements that go beyond those set forth in the statute.
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> ***Section 228.02(b) definition of "Autonomous vehicle".*** Consistent with our comments on Section 227.02, we support the DMV's efforts to more closely align its definitions with those of SAE Standard J3016, and appreciate the clarification that the definition of "autonomous vehicle" would expressly apply to SAE Levels 3, 4 and 5 systems.

Section 228.02(c) definition of "Deployment". We have significant concerns with the DMV's proposed definitions of "deployment," which we believe would substantively render the concept of a "permit to deploy" potentially unworkable from a practical standpoint.

The overarching definition of "deployment" in the Proposed Rule is stated as "the operation of an automated vehicle on public roads by members of the public who are not employees, contractors, or designees of a manufacturer or other testing entity." However, the term is then further defined to include "when the manufacturer sells, leases, or otherwise makes autonomous vehicles available for use outside of a testing program."

While we recognize that a broad definition of "deployment" (*i.e.,* "the operation of an automated vehicle on public roads by members of the public . . .") is consistent with that outlined in the NHTSA Federal Policy, this definition more accurately describes *operation*, not *deployment*. Manufacturers do not "deploy" vehicles in the sense that they would not themselves operate the vehicle.

However, by defining "deployment" to also include the sale or lease of a motor vehicle, the definition becomes overly broad and unworkable in several respects. First, most auto manufacturers do not sell or lease motor vehicles to the public; rather, vehicles are sold or leased through independent dealers. Second, this broader definition of "deployment" could have a substantial impact on consumers, as will be discussed in more detail in the sections that follow.

The regulations should more clearly differentiate between the sale and the operation of an automated vehicle outside of the testing environment. We therefore recommend that the DMV amend its definitions as follows:

> (c) "~~Deployment~~ Operation" means the operation of an autonomous vehicle on public roads by members of the public who are not employees, contractors, or designees of a manufacturer or other testing entity.
>
> > ~~(1) "Deployment" also includes when the manufacturer sells, leases, or otherwise makes autonomous vehicles available for use outside of a testing program.~~
> >
> > ~~(2) "Deployment" also includes the operating of autonomous vehicles outside of a testing program where transportation services are provided to members of the public and a fee is charged~~
>
> (d) "Deployment" means to make commercially available to the public, either

directly or through a network of independent franchised dealers, an autonomous vehicle or an aftermarket autonomous technology by the manufacturer of such vehicle or technology.

While we still have a number of substantive concerns with the proposed permit to deploy process outlined in the Proposed Rule (which we will discuss in more detail below), we believe these proposed amendments to the definitions of "operation" and "deployment" would reduce uncertainty.

Section 228.06. Application for a Permit for Post-Testing Deployment of Autonomous Vehicles on Public Roads.

We strongly disagree with the DMV's proposal to implement a "Permit to Deploy" process that conditions the sale or use of automated vehicles based on a manufacturer's obtaining a "permit" from the DMV to do so. As discussed above, we believe the California DMV should not be requiring manufacturers to obtain a permit to sell (or make commercially available) a vehicle that is certified to meet all applicable federal safety standards and that is therefore otherwise legal to sell in the other 49 states. Moreover, the scope of this requirement is confusing on account of the broad definition of "deployment," which, as discussed above, includes both the sale/lease of an automated vehicle and the operation of an automated vehicle by the public. Is the intent to prohibit a member of the public from operating an automated vehicle (perhaps one purchased out of state) unless and until the vehicle's manufacturer has obtained a permit from the DMV? We would object to such a restriction, as it would deny consumers in California the same access to automated vehicle technologies that citizens of other states have.

While we recognize the intent of the Department is to provide necessary safety assurances in the absence of federal standards, the proposed approach is a significant divergence from how motor vehicles are regulated in the United States. If such a framework were to be adopted by other states, we believe it would create significant regulatory uncertainty that would likely impact the future of automated vehicle technology and the ability for manufactures to develop vehicles that can be operated across state lines.

In addition, given that this technology does not currently exist outside the research environment, a number of proposals put forward by the Department are premature and overly comprehensive. In fact, we believe that a number of areas that the DMV seeks to address through its permitting process are unnecessarily duplicative, as they are already being addressed at the Federal level or could be achieved using an alternative approach.

The Federal Automated Vehicle Policy strongly recommends that NHTSA alone regulate the design performance of automobiles. The proposed DMV regulations would deviate significantly from this recommendations and would in certain areas improperly codify the agency guidance.

Issues related to the performance and design of automated vehicles should be excluded from consideration.

Sections 228.06 (a)(5), (a)(6), (a)(7), (a)(8)(a), (a)(8)(B), (a)(8)(C), (a)(9), (a)(10), (b)(1), (b)(2), and (b)(3) all address issues of vehicle performance and design in some form that is either regulated under existing Federal law (such as the requirement that all vehicles offered for sale in the United States meet FMVSS), or are included as part of the NHTSA Federal Policy and addressed through the NHTSA Safety Assessment letter process. To a certain extent, Section 228.06 (c)(7) also relates to issues of vehicle performance and design as it is unclear the extent to which the California DMV would consider test data as part of its determination for granting or rejecting a permit to deploy.

- As discussed previously, the EDR provisions in section 228.06(a)(5) impose improper design criteria for automated vehicles. They also conflict with current federal regulations concerning the elements an "event data recorder" must have, if a vehicle is equipped with such a recorder. 49 C.F.R Part 563 "specifies uniform, national requirements for vehicles equipped with event data recorders (EDRs) concerning the collection, storage, and retrievability of onboard motor vehicle crash event data."[7] We oppose state standards establishing data collection, storage and retrieval requirements for automated vehicle EDRs above and beyond those set forth in federal regulations.

- The provisions in Section 228.06 (a)(6) requiring that the manufacturer certify that the vehicle meets all applicable FMVSSs and California standards is duplicative and unnecessary. If a vehicle does not satisfy applicable FMVSSs and does not have an exemption, then they cannot legally be sold anywhere in the United States, and NHTSA has sufficient authority to enforce this prohibition.

- The requirements in Sections 228.06(a)(8), (9) and (10) impose design and performance criteria and would inappropriately seek to codify aspects already being considered by NHTSA in its Federal Policy guidance. As noted above, if NHTSA's determines whether there is an unreasonable risk to safety in these areas, they have authority to order a recall.

- As discussed previously, the DMV should not seek to develop performance requirements related to remote operators as defined in Section 228.06(b).

[7] 49 C.F.R § 563.1.

- Section 228.06(c)(6) (requiring certification that the manufacturer has complied with its responsibility to register with NHTSA) is superfluous and unnecessary. This is already a federal requirement.

A Permit to Deploy should not be conditional on providing certain disclosures

Other prerequisites for a permit to deploy center around providing certain information to the DMV and/or the consumer. These include:

- Section 228.06(a)(1) (requiring that the operational design domain be disclosed);
- Section 228.06(a)(2) (requiring that commonly-occurring restricted conditions, such a snow and fog, be disclosed);
- Section 228.06(c)(1) (requiring a consumer or end-user education plan);
- Section 228.06(c)(2) (requiring a description of how the vehicle meets the applicable SAE level of automation);
- Section 228.06(c)(3) (requiring a copy of the law enforcement interaction plan); and
- Section 228.06(c)(4) (requiring a privacy disclosure)

Providing the enumerated information set forth should not be conditions for a "permit" to sell the automated vehicle. A better approach would be for the DMV simply to require that that information be provided to the customer at the point of sale. It is not necessary to condition a "permit" to sell the vehicle on providing this information to the DMV as part of an application.

Providing test data should not be considered as a prerequisite to "deploy" in California

The requirement in Section 228.06(c)(7) that a manufacturer provide test data is unnecessary and we do not understand why the DMV believes it needs this information. This provision presupposes that the DMV will review the data and determine whether the automated vehicle is safe to sell and operate in the state, but that is not (and should not be) the DMV's role nor is it the DMV's expertise. NHTSA is the sole authority for determining whether a manufacturer has designed a safe vehicle. We urge the DMV to work closely with the federal regulator in such cases to ensure the state has the necessary safety assurances as it relates to the design of vehicles deployed for use on California roads.

Providing a NHTSA Safety Assessment Letter should not be a prerequisite to "deploy" in California

The requirement in Section 228.06(d) that the manufacturer submit a non-confidential version of the SAL would improperly codify the requirement that developers submit an SAL to NHTSA in the first place. This runs directly counter to the admonition in the Federal Policy that states should not seek to codify the federal Guidance. As discussed previously, the Federal government has authority to intervene where there is deemed to be an unreasonable risk to safety, and can where necessary, compel manufacturers to provide information in such cases.

Section 228.10. Amendment of Application

Consistent with our objection to the DMV's proposed "permit to deploy" approach, we disagree with the DMV proposal that "a manufacturer submit a new application for public deployment prior to implementing a material change in the capabilities or performance of an autonomous vehicle previously approved by the department for public deployment." It is not appropriate for the DMV to arbitrate the specific design and performance characteristics of these systems, and believe this will significantly impact innovation by requiring "pre-market approval" prior to "any hardware, software, or other significant update to the autonomous vehicle's autonomous technology" (see Section 228.10(c)).

This will not only set up unnecessary roadblocks to automated vehicle development and a manufacturer's ability to update and improve the design and performance of deployed vehicles, but could also have a material impact on the ability to address safety-related issues. For example, what if the material change were required to improve safety performance or remedy a potential defect? Waiting for approval from the DMV would create an administrative roadblock.

Consistent with our prior comments, we are also concerned with the potential for a fractured regulatory environment, where it may be possible for the DMV to reach a determination inconsistent with that of NHTSA as it relates to issues of performance and design of vehicle systems.

Section 228.12. Reporting Safety Defects.

This section improperly overlaps several processes already in place by the federal government concerning safety-related defects. As discussed further in our comments on Section 228.20, the DMV should not establish itself as a regulator on issues pertaining to the safe design and performance of automated vehicles. To the extent that there are any safety-related defects in an autonomous technology that creates an unreasonable risk to safety, it must be reported to NHTSA under federal law, and NHTSA will take the appropriate action.

Section 228.14. Conditions Related to the Term of Permit

We have significant concerns with this section in light of the fact that "deploy" means both the sale/lease of an automated vehicle and the operation of such vehicle by the public. In light of this definition, the DMV has not adequately considered the practical implications of the conditions related to the term of a permit that have been proposed. For example, if an autonomous vehicle were sold to a member of the public for private use, it is not clear what would happen if the manufacturer's permit were subsequently revoked or suspended. Would the customer be prevented from operating the automated vehicle on public roads irrespective of whether the autonomous technology were engaged or not? If so, how would the Department expect this issue to be addressed?

Similarly, the provision stating that "[a] manufacturer shall only allow the deployment of autonomous vehicles in the autonomous mode by the general public for the period of time that the Permit to Deploy is valid as specified in subsection (a) of this section," assumes a level of control by the manufacturer that may not be designed into the system. It assumes that a manufacturer will have a mechanism to "turn off" the automated mode and prevent the automated vehicle from being operated in automated mode. This provision of the Proposed Rule would be entirely unworkable as a practical matter.

Section 228.16. Refusal of an Application for a Permit to Deploy

As discussed above, we think it is inappropriate for the DMV to require a "permit" as a prerequisite to either sell or operate an automated vehicle in the state. Additionally, the "catchall" in this section is very problematic. Subsection (b) states that a permit can be denied "[f]or any act or omission of the manufacturer or one of its agents, employees, contractors, or designees which the department determines creates a safety risk to the public." There is no standard by which the DMV would determine whether any act or omission creates a safety risk to the public.

Additionally, to the extent that the triggering "act or omission of the manufacturer" could include how the automated vehicle is designed or how the automated vehicle systems perform, we are concerned that this could create a circumstance where DMV is in a position inconsistent with NHTSA on matters of motor vehicle safety, which could result in the refusal of an application for a permit to deploy a vehicle that is otherwise permitted to operate elsewhere in the United States.

Section 228.20. Suspension or Revocation of Permit

As previously discussed, we believe the establishment of a permit to deploy is unnecessary to ensure the safe operation of autonomous vehicles on public roads. We are fundamentally opposed to the DMV establishing a framework where manufacturers could be prevented from

selling or leasing in California a vehicle that is certified to meet all applicable FMVSSs and is otherwise legal to sell or operate in the other 49 states.

Section 228.20(b). This section specifies a number of conditions under which the DMV may immediately suspend a "Permit to Deploy." Several of these again are duplicative of federal processes, and the DMV should not be conditioning the sale or use of automated vehicles based on these proposed reasons, nor positioning itself such that it could make an inconsistent determination to NHTSA on issues related to vehicle safety.

Section 228.20(b)(5). One of the bases for suspending or revoking a permit is if "the manufacturer's vehicles are subject to an open National Highway Traffic Safety Administration recall related to the safe operation of the autonomous technology." The regulations also state that upon suspension or revocation on this basis, "a manufacturer shall cease all further deployments of its autonomous vehicles on public streets until the department has verified that the manufacturer has taken appropriate action to correct the deficiencies or complied with the National Highway Traffic Safety Administration recall that led to the suspension or revocation and the suspension has been lifted or the revocation withdrawn by the department."

To the extent that the "permit to deploy" in this context refers to a manufacturer's ability to *sell* a new automated vehicle, then this provision is unnecessary and superfluous. Under federal law, a manufacturer or dealer cannot sell a new vehicle that is subject to an open recall until it is remedied. We are concerned, therefore, that the DMV through its proposed regulations would not only be establishing duplicative requirements, but would also be imposing more severe enforcement actions. Specifically, by broadly revoking a "permit to deploy" the Department would be limiting a manufacturer's ability to sell vehicles irrespective of whether a remedy had been applied for those affected vehicles.

In addition, to the extent that the regulations would prevent any further *operation* of the automated vehicle (given that "deployment" means both sell and operate), we have concerns the regulations would give the DMV authority to "ground" a vehicle subject to recall that even NHTSA does not have. Additionally, it is unclear what would happen in cases where the automated vehicles have already been sold.

Section 228.20(b)(6). This section allows the DMV to immediately suspend a permit where "[b]ased upon the performance of the vehicles, the department determines the manufacturer's vehicles are not safe for the public's operation." Again, this would set the DMV up as the arbiter of whether a particular vehicle has been designed safely. This should be the exclusive role of NHSTA, which has far greater expertise in this area.

Section 228.20(c). This section describes the consequence of a suspended or revoked permit, and provides:

> Upon suspension or revocation by the department of a Permit to Deploy Autonomous Vehicles on Public Streets, a manufacturer shall cease all further deployments of its autonomous vehicles on public streets until the department has verified that the manufacturer has taken appropriate action to correct the deficiencies or complied with the National Highway Traffic Safety Administration recall that led to the suspension or revocation and the suspension has been lifted or the revocation withdrawn by the department.

The regulations are vague as to the impact of a permit revocation on automated vehicles already in the hands of the public. Given the structure of the regulations, it appears that it would still be legal to operate such a vehicle. There is nothing in the regulations requiring that there be a valid permit to deploy still in effect in order to operate the vehicle. Section 228.06 simply requires that a manufacturer apply for a permit and obtain a permit before an automated vehicle may be deployed. But once the permit has been issued and the vehicle has been sold to the end-user, it is not a violation of the regulations to continue to operate the vehicle even after the permit has been revoked or suspended. This makes sense, as it would be unfair to the end-user for the DMV to prevent him from operating the vehicle he has already lawfully acquired (although it would be important for consumers to take actions to remedy vehicles subject to a safety recall).

Section 228.20(d). This section requires a manufacturer to notify all owners that a permit has been revoked and the reason for the revocation. For recalled vehicles, this notification is unnecessary, as manufacturers are already required to notify owners when a defect or noncompliance has been identified. By requiring dual notifications be provided to consumers, we have concerns that this would not only create potential for consumer confusion, but would also place unnecessary paperwork burden on manufacturers without a clearly defined purpose.

Section 228.28. Driver and Manufacturer Responsibility

Global Automakers supports the DMV proposed regulations addressing issues of driver and manufacturer responsibility. For Level 3 vehicles, where the system is designed and intended to operate within a limited operational design domain, it is important that there be a requirement that a licensed driver be available to provide the necessary fallback to the system in the event the autonomous technology notifies to the driver to resume control of the dynamic driving task, as defined in Section 228.28 (a)(1).

IV. Conclusion

Global Automakers and our member companies believe that automated vehicle technologies can provide significant benefits for safety, mobility and the environment. If policymakers can ensure a regulatory framework where innovation is permitted to thrive, automated vehicles can truly transform the way we move goods and people. It is important that state policymakers work with all stakeholders to ensure that we have consistent rules for the testing and deployment of automated vehicles of all levels. We look forward to working further with the DVM on this important issue.