



April 24, 2017

Jean Shiomoto, Director
California Department of Motor Vehicles
2415 1st Ave., Mail Station F101
Sacramento, CA 95818-2606

Re: Revised Draft Regulations for Testing and Deployment of Autonomous Vehicles

Thank you for the opportunity to provide written comments on the California DMV's proposed regulations for autonomous vehicle testing and deployment. We applaud the significant changes the DMV has made since its prior draft of this rule, including removal of the requirements that a manufacturer generate a year of driverless testing data in California before applying for a post-testing deployment permit, and obtain an ordinance or resolution from each local authority before driverless testing. We believe these changes strongly improve the proposed rule.

While the draft rule addresses many of the concerns we and others raised in prior comment rounds, the current draft contains a number of issues that warrant additional clarification or modification. In the attachment to this letter, we provide section-by-section comments and specific recommendations, a number of which we highlight here:

- *Driver v. no driver as the key distinction:* The question of which type of AV permit is required should turn on whether or not a driver is in the vehicle (which is an easily administrable distinction), not on the capability of the vehicle involved. The additional requirements for fully driverless testing and deployment (sections 227.38, 228.06) make sense only in the context where there is no driver in the vehicle, and should not apply to the testing or deployment of vehicles that are capable of being operated without a driver, but nevertheless have a driver in the vehicle.
- *"Remote operator" definition:* The current definition of "remote operator" (section 227.02(l)) does not recognize that the functions of a remote operator (e.g. engaging the autonomous technology, monitoring the vehicle during operation, etc.) may be performed by multiple persons within a single entity. We recommend revising the definition to enable flexibility for each entity to determine how best to effectuate the remote operator functions among its personnel in a coordinated manner.
- *Liability:* Several provisions (including sections 227.38(b), 228.28(a)(1)-(2) & (b)) appear to be inconsistent with well-established tort law principles and modify liability for manufacturers in a manner that is overbroad and unnecessary. We recommend deletion of those provisions.

- *Information Privacy:* As noted in our comments on the previous draft rule, information privacy is outside the expertise and purview of the DMV. Furthermore, the NHTSA Safety Assessment process already includes “Privacy” as one of its subject areas. To the extent the DMV has authority to regulate information privacy in this context, it should be limited to requiring a manufacturer to provide a privacy policy which governs information collected about the passenger and how it is used (sections 227.38(h), 228.24).

We strongly urge the DMV to move expeditiously in addressing our suggested changes above and in the attached Section-by-Section Recommendations to promulgate a final rule that will enable the safe and rapid development of autonomous vehicles in the State.

Sincerely,

A handwritten signature in black ink, appearing to be 'JK' with a stylized flourish.

John Krafcik
CEO, Waymo

Cc:
Brian Kelly
Secretary, California State Transportation Agency

Section-by-Section Recommendations

The following provides a detailed listing of our recommended revisions and supporting rationales on a section-by-section basis. Text in **bold** font is a recommended addition to the current draft text proposed by DMV, while text in ~~strikethrough~~ font is a recommended deletion.

§ 227.02(a)

Recommended revision: “Autonomous mode” is the status of vehicle operation ~~where technology that is a combination of hardware and software, both remote and on-board, performs the dynamic driving task, with or without a natural person actively monitoring the driving environment. An autonomous vehicle is operating or driving in autonomous mode when it~~ **the vehicle** is operated or driven with the autonomous technology engaged.

Rationale: *This change would simplify the definition of “autonomous mode” by incorporating the definition of “autonomous technology” (see below).*

§ 227.02 (new subsection)

Recommended addition: **“Autonomous technology” is the hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether it is limited to a specific operational design domain; this term is used specifically to describe a level 3, 4, or 5 driving automation system under SAE J3016.**

Rationale: We recommend defining “autonomous technology” by making specific reference to the current SAE taxonomy for levels of autonomy. This approach is consistent with the statutory definition of “autonomous technology” in Vehicle Code § 38750(a)(1), and aligns with DMV’s proposed definitions of “autonomous test vehicle” in § 227.02(b)(2) and “autonomous vehicle” in § 228.02(b), which similarly reference the SAE taxonomy.

§ 227.02(b)

Recommended revision: “Autonomous test vehicle” is an **autonomous** vehicle **used in testing.** ~~that has been equipped with technology that is a combination of both hardware and software that performs the dynamic driving task, with or without a natural person continuously controlling the vehicle or continuously monitoring the vehicle’s performance in the driving environment.~~

~~(1) An autonomous test vehicle does not include vehicles equipped with one or more systems that provide driver assistance and/or enhance safety benefits but are not capable of, singularly or in combination, performing the dynamic driving task on a sustained basis without the constant control or active monitoring of a natural person.~~

~~(2) For the purposes of this article, an “autonomous test vehicle” is equipped with technology that makes it capable of operation that meets the definition of Levels 3, 4, or 5 of the SAE International Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems, standard J3016~~

~~(3) The presence of a natural person who is an employee, contractor, or agent of the manufacturer in the vehicle to monitor a vehicle’s autonomous performance shall not affect whether a vehicle meets the definition of autonomous test vehicle.~~

Rationale: *This change is intended to simplify and clarify the definition of “autonomous test vehicle” by incorporating the definitions of “autonomous vehicle” (see below) and “testing” (in the proposed rule).*

§ 227.02 (new subsection)

Recommended addition: **“Autonomous vehicle” means a vehicle equipped with autonomous technology.**

Rationale: *This definition is consistent with the statutory definition (Vehicle Code § 38750(a)(2)(A)) and adding it here aids understanding of other terms.*

§ 227.02(d)

Recommended revision: “Conventional mode” means **the status of** the vehicle **when it** is under the active physical control of a natural person sitting in the driver’s seat operating or driving the vehicle with the autonomous technology disengaged.

Rationale: *Minor edits for clarity.*

§ 227.02 (new subsection)

Recommended addition: **“Minimal risk condition” means a low-risk operating mode in which an autonomous vehicle achieves a reasonably safe state, such as bringing the vehicle to a complete stop, upon experiencing a failure of the vehicle’s autonomous technology that renders the vehicle unable to perform the entire dynamic driving task.**

Rationale: *This concept of “minimal risk condition” is consistent with the concept of a “complete stop” described in Vehicle Code § 38750(c)(1)(C)(ii) (“If the operator does not or is unable to take control of the autonomous vehicle, the autonomous vehicle shall be capable of coming to a complete stop.”).*

§ 227.02 (new subsection)

Recommended addition: **“Operator” means the person who is seated in the driver’s seat of an autonomous vehicle and who is not a passenger, or if there is no such person, causes the autonomous technology to engage.**

Rationale: *This definition is based on Vehicle Code § 38750(a)(4) and addresses SAE Level 4 and 5 vehicles where a “passenger” (defined in the proposed rule as “an occupant of a vehicle who has no role in the operation of that vehicle”) may be sitting in the driver’s seat.*

§ 227.02(l)

Recommended revision: “Remote operator” is a natural person **or persons** who **collectively:** possesses the proper class of license for the type of **autonomous test** vehicle being operated; **are** not inside the vehicle; engages and monitors the autonomous technology; and **are** able to communicate with occupants in the vehicle through a communication link.

Rationale: *The functions of a “remote operator” may be performed by different persons within a single entity. The edits are aimed to enable flexibility for each entity to determine how best to effectuate these remote operator functions among its personnel in a coordinated manner.*

§ 227.02 (new subsection)

Recommended addition: “SAE J3016” means the Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, published by SAE International in September 2016.

Rationale: *Defining which version of the SAE standard the rule refers to is necessary to avoid confusion as to which version of the taxonomy is being referenced. (Note that SAE International no longer refers to itself as the Society of Automotive Engineers.)*

§ 227.20

Recommended revision: (a) The department shall review the Autonomous Vehicle Tester Program (AVT) Application for Manufacturer’s Testing Permit or a Manufacturer’s Testing Permit – Driverless Vehicles, and notify the manufacturer within 10 days of receipt of the application whether it is complete ~~or it is determined to be deficient~~. **Within 30 days of receipt of the completed application or of material received to correct an application deficiency**, ~~the~~ department shall approve an application and issue a Manufacturer’s Testing Permit ~~after~~ **upon** determining that the application is sufficient. The department shall approve an application and issue an Autonomous Vehicle Testing (AVT) Program Manufacturer Permit, form OL 315 (NEW 9/2013) or an Autonomous Vehicle Testing (AVT) Program Manufacturer Permit – Driverless Vehicles, form OL 315A, (NEW 2/2017), which are hereby incorporated by reference.

(b) The department shall notify the manufacturer of any deficiency **within 30 days of receipt of the completed application** and allow the manufacturer a reasonable period of time in which to correct the deficiency. The department will review material submitted to correct an application deficiency. If the department determines that the application remains deficient, the department shall notify the manufacturer/applicant of the continuing deficiency **within 10 days of receiving the additional material from the applicant**. **Upon receiving a notice of continuing deficiency, the manufacturer/applicant may request that the department issue a final decision, and the department shall issue a final decision within 10 days of receipt of the request**. The department ~~may~~ **shall** deny an application if the manufacturer/applicant fails to make the application sufficient after a reasonable opportunity to do so. **For each determination, the department shall send an applicant a detailed statement explaining the reasons why the department has determined the application to be deficient, or why it has denied the application.**

Rationale: *We recommend that the Department set and abide by defined time limits to ensure that the review process does not drag on indefinitely and that the applicant can have sufficient certainty about the timing of the review process to facilitate business planning and investment decisions. A process that lacks defined time limits creates excessive uncertainty and is a disincentive to testing and deployment of autonomous vehicles in California. Our recommendations provide for a two-stage review -- i.e. for completeness within 10 days, and for sufficiency/deficiency within 30 days of receipt of the completed application -- with an opportunity to correct continuing deficiencies as set forth above. In addition, we recommend that the department’s actions in identifying a deficiency and/or denying an application be set forth in a detailed statement to the applicant explaining its reasons for those actions.*

Opening Title and § 227.30(a)

Recommended revision: APPLICATION REQUIREMENTS TO FOR TEST VEHICLES WITH THAT REQUIRE A DRIVER IN THE VEHICLE

227.30 Manufacturer’s Testing Permit Application.

(a) A manufacturer desiring to conduct testing of autonomous vehicles on public roads in California **with a driver in the vehicle** shall submit an application for a permit to conduct testing to the department on Autonomous Vehicle Tester Program (AVT) Application for Manufacturer's Testing Permit, form OL 311 (Rev 2/2017), which is hereby incorporated by reference.

Rationale: *The edits clarify that the key distinction in the different types of AV permits concerns whether the manufacturer seeks to test the vehicle with or without a driver in the vehicle, rather than the capability of the autonomous vehicle involved.*

Opening Title and § 227.38

Recommended revision: APPLICATION REQUIREMENTS TO TEST FOR VEHICLES DESIGNED TO OPERATE WITHOUT A DRIVER IN THE VEHICLE

§227.38. Manufacturer's Permit to Test Autonomous Vehicles **Without that do not Require** a Driver. A manufacturer desiring to conduct testing of autonomous vehicles ~~capable of operating~~ without the presence of a driver inside the vehicle on public roads in California shall submit an application for a permit to conduct driverless testing to the department on Autonomous Vehicle Tester (AVT) Program Application for a Manufacturer's Testing Permit – Driverless Vehicles, form OL 318 (New 2/2017), which is hereby incorporated by reference. Notwithstanding the requirements of Sections 227.04(b), 227.24, 227.26(a) and (b), 227.32, 227.34, and 227.36, a manufacturer may conduct testing of autonomous vehicles ~~capable of operating~~ without the presence of a driver inside the vehicle on public roads in California if all of the following requirements are met....

Rationale: *This section is about testing without a driver and should not apply (as the current draft would) to testing with a driver even if the test vehicle is capable of operating without the presence of a driver. Our suggestions make this distinction clear.*

§ 227.38 (new subsection)

Recommended addition: **The manufacturer certifies that the autonomous vehicles are capable of operating without the presence of a driver inside the vehicle and that the autonomous technology in the vehicles meets the description of a Level 4 or 5 automated driving system under SAE J3016.**

Rationale: *The recommended language would ensure that testing without a driver occurs only in vehicles capable of such operation.*

§ 227.38(b)

Recommended deletion: ~~(b) The manufacturer certifies that, to the extent that the autonomous vehicle is at fault in any collision, the manufacturer shall assume any and all responsibility for liability associated with the operation of the vehicles on public roads.~~

Rationale: *We recommend deleting this paragraph because existing tort law already contains well-established principles to establish fault and apportion liability among tortfeasors, and DMV should not disturb those principles through this regulation. As drafted, this vague and ambiguous provision may require a manufacturer to assume "any and all responsibility for liability" related to a collision even if the manufacturer is only partially at fault, which is inconsistent with existing tort law in CA (which is a comparative fault state). To the extent the provision is intended to codify existing tort law, it is unnecessary and unfairly singles out autonomous vehicles from all other products governed by the common law. We see no reason to alter or codify CA common law, which provides fully adequate remedies for injuries or other damages related to a collision.*

§ 227.38(e)

Recommended revision: The manufacturer shall maintain a training program for its remote operators and certify that each remote operator ~~has completed the manufacturer's autonomous vehicle test driver training program and~~ possesses the proper class of license for the type of test vehicle being operated. The manufacturer shall provide the department with a course outline and description of the remote operator training program and the date that each remote operator completed the program. The remote operator training program shall include, but not be limited to the following:

- (1) Instruction on the automated driving system technology being tested, including how to respond to emergency situations ~~and hazardous driving scenarios~~ experienced by the vehicle or the vehicle's occupants.
- (2) The instruction shall match the level and technical maturity of the automated driving system.

If portions of the remote operator functions are being performed by different persons, the manufacturer shall determine which persons shall complete relevant aspects of the remote operator training program for the functions they perform.

Rationale: *The capabilities and required skills of a remote operator are distinct from an autonomous vehicle test driver; accordingly, we recommend striking the reference to the AV test driver training program requirement which is relevant only to AV test drivers. We also recommend striking the reference to "hazardous driving scenarios" due to its vagueness and the fact that the vehicle itself will be designed to perform properly in such circumstances. A situation involving a true emergency would still be covered. In addition, as noted above, the functions of a "remote operator" may be performed by different individuals within a single entity. The edits are aimed to enable flexibility for each entity to determine how best to effectuate these remote operator functions (and the requisite training) among its personnel in a coordinated manner.*

§ 227.38(h)

Recommended revision: (h) The manufacturer shall disclose to any passenger in the vehicle ~~that is member of the public that is not an employee, contractor, or designee of the manufacturer~~ **its privacy policy concerning information that may be collected about the passenger and how it is used** ~~what personal information, if any, concerning passengers is collected by the autonomous vehicle.~~

Rationale: *A requirement to generally disclose what "personal information" is collected is too vague and ambiguous. Instead, passengers who are members of the public should be given the manufacturer's privacy policy which governs information collected about the passenger. That policy should describe what passenger information is collected and how it is used.*

§ 227.42(b)(4)

Recommended revision: (b) The department may suspend or revoke a Manufacturer's Testing Permit or a Manufacturer's Testing Permit – Driverless Vehicles of any manufacturer for any of the following reasons:

- ... (4) The manufacturer fails to disclose to any passengers in its vehicles that are members of the public **its privacy policy concerning information that may be collected about the passengers and how it is used** ~~what personal information concerning those passengers is being collected by the autonomous vehicles.~~

Rationale: As noted above, a requirement to generally disclose what “personal information” is collected is too vague and ambiguous. Instead, passengers who are members of the public should be given the manufacturer’s privacy policy which governs information collected about the passenger. That policy should describe what passenger information is collected and how it is used.

§ 227.50(b)(3)

Recommended revision: (b) Every manufacturer authorized under this article to test autonomous vehicles on public roads shall prepare and submit to the department an annual report summarizing the information compiled pursuant to subsection (a) by **February** ~~January~~ 1st, of each year.

...

(3) The annual report shall summarize disengagements for each month as follows:

(A) An indication of whether the test vehicle **was being operated** ~~is capable of operating~~ without a driver,

(B) The total number of autonomous mode disengagements and the circumstances or testing conditions at the time of the disengagements including:

...

(v) ~~Whether the disengagement was part of safety-related or a planned test.~~

Rationale: We recommend changing the due date of the disengagement report to February 1 (instead of January 1) given the considerable time and effort needed to compile, analyze, and categorize the prior year’s testing data. Also, as noted above, our suggestions in (b)(3)(A) make clear that the key distinction is between testing with a driver and testing without a driver (not whether a test vehicle is capable of operating without a driver). In addition, to the extent the language in (b)(3)(B)(v) is referring to a test that intentionally causes a disengagement, such an event would not be reportable because it would not involve either a failure of the technology or a decision by a driver to assume control for safety reasons. Accordingly, we recommend deleting the indicated language.

§ 228.02 (new subsection)

Recommended addition: The definitions in section 227.02 apply to the same terms used in this article.

Rationale: We have suggested definitions in 227.02 of the major terms used in that article and the definitions in the two articles should be consistent.

§ 228.02(b)

Recommended deletion: “Autonomous vehicle” means any vehicle equipped with technology that is a combination of both hardware and software that has the capability of performing the dynamic driving task without the active physical control or monitoring of a natural person whether or not the technology is engaged, excluding vehicles equipped with one or more systems that enhance safety or provide driver assistance but are not capable of driving or operating the vehicle without the active physical control or monitoring of a human. For the purposes of this article an “autonomous vehicle” meets the definition of Levels 3, 4, or 5 of the Society of Automotive Engineers’ Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems, Standard J3016.

Rationale: We have suggested a definition of “autonomous vehicle” in 227.02 and the definitions in the two articles should be consistent -- accordingly, we suggest deleting this definition.

§ 228.06(a)

Recommended revision: Except for testing as provided in Sections 227.3028 and 227.3840 of Article 3.7 an autonomous vehicle shall not be deployed on any public road in California until the manufacturer has submitted and the department has approved an Application for a Permit to Deploy Autonomous Vehicles on Public Streets, form OL 321 (New 2/2017), which is hereby incorporated by reference.

Rationale: *The opening sentence appears to cross-reference erroneous sections of the testing regulation -- our edits cite to the correct provisions regarding the permits for testing with and without a driver.*

§ 228.06(a)(1)-(2)

Recommended revision: (1) The manufacturer shall identify in the application the operational design domain in which the subject autonomous vehicles are designed to operate and certify that the vehicles are designed to be incapable of operating in the autonomous mode in areas outside of the disclosed operational design domain.

~~(2) The manufacturer shall identify any commonly-occurring or restricted conditions, including but not limited to: snow, fog, black ice, wet road surfaces, construction zones, and geo-fencing by location or road type, under which the vehicles are either designed to be incapable of operating or unable to operate reliably in the autonomous mode and certify that the vehicles are designed to be incapable of operating in autonomous mode under those conditions.~~

Rationale: *Paragraph (a)(2) is redundant in light of paragraph (a)(1), which uses the defined term "operational design domain" to capture the same idea, so we recommend striking it.*

§228.06(a)(4)

Recommended revision: The manufacturer must provide on the application the number of the Manufacturer's License issued by the department pursuant to Vehicle Code section 11701, **unless the manufacturer seeking a permit under this section is not a manufacturer of vehicles required to obtain a Manufacturer's License.**

Rationale: *Our edits make clear that if the manufacturer seeking a post-testing deployment permit is not a manufacturer of vehicles required to obtain a Manufacturer's License under Vehicle Code section 11701, then there is no need to list a Manufacturer's License number on the permit application.*

§ 228.06(a)(5)

Recommended revision: The manufacturer shall certify in the application that the autonomous vehicles are equipped with an autonomous technology data recorder that captures and stores autonomous technology sensor data for all vehicle functions that are controlled by the autonomous technology at least 30 seconds before and at least 5 seconds after, or until the vehicle comes to a complete stop after a collision, whichever is later, with another vehicle, person, or other object while the vehicle is operating in autonomous mode. The data captured and stored by the autonomous technology data recorder, in a read only format, must be capable of being accessed and retrieved by **the manufacturer** ~~a commercially available tool.~~

Rationale: *We recommend striking the requirement that the data stored by the autonomous technology data recorder be retrievable by a commercially available tool. Imposing this requirement unduly constrains how manufacturers design data recorders at this early stage of the technology, and could pose privacy and security risks that have not been fully considered. We recommend instead a straightforward requirement that the data be capable of being accessed and retrieved by the manufacturer.*

§ 228.06(a)(8)

Recommended revision: The manufacturer shall certify that the autonomous technology is designed to detect and respond to roadway situations in compliance with all provisions of the California Vehicle Code and local regulation applicable to the operation of motor vehicles, except when necessary ~~for~~ **to enhance** the safety of the vehicle's occupants and/or other road users.

Rationale: *We recommend clarifying that the autonomous technology may be programmed to temporarily violate applicable road rules when necessary to enhance the safety of surrounding road users and vehicle occupants -- for example, to match the driving behavior of other human drivers resulting in greater predictability for other road users.*

§ 228.06(a)(9)

Recommended deletion: ~~A certification that the autonomous vehicles have self-diagnostic capabilities that meet current industry best practices for detecting and responding to cyber-attacks, unauthorized intrusions, and false or spurious messages or vehicle control commands.~~

Rationale: *Cybersecurity is outside the purview and expertise of DMV, and the NHTSA Safety Assessment process already includes "Cybersecurity" as one of the subject areas -- accordingly, we recommend deleting this provision.*

§ 228.06(c)(1)

Recommended revision: (c) The manufacturer shall submit with the application all of the following:

- (1) **For vehicles to be sold or leased to persons other than the manufacturer, A** a consumer or end user education plan, which covers the operational design domain of the vehicle, which also includes the following....

Rationale: *The requirements in paragraph (c)(1) regarding a consumer or end user education plan should apply only in the context where the vehicle is sold or leased to persons other than the manufacturer (and should not apply, for example, in the context of manufacturer-operated commercial fleets). Our edits clarify that point.*

§ 228.08

Recommended revision: (a) The department shall review the applications submitted pursuant to Section 228.06 and notify the manufacturer within **10 days of receipt of the application whether it is complete** ~~thirty (30) business days of receipt whether the application is determined to be incomplete.~~ After notification by the department, manufacturers may submit materials necessary to complete the application up to one year after the date of the original submission of the application.

(b) ~~Applications deemed complete will be reviewed for approval, except as required by the timeframes set forth in Vehicle Code section 38750.~~ **Within 30 days of receipt of the completed application or of material received to correct an application deficiency, the department shall approve an application and issue a Permit to Deploy Autonomous Vehicles on Public Streets upon determining that the application is sufficient.**

(c) The department shall issue a notice of correction to manufacturers whose applications are deemed deficient in content details within thirty (30) business days of **receipt of the completed application being deemed complete.** The manufacturer may resubmit the application with the corrections required by the notice of correction within one year of the original submission of the application. **The department will review material submitted to correct an application deficiency and shall approve an application**

within the time specified in subsection (a) upon determining that the application is sufficient. If the department determines that the application remains deficient, the department shall notify the manufacturer/applicant of the continuing deficiency within 10 days of receiving the additional material from the applicant. Upon receiving a notice of continuing deficiency, the manufacturer/applicant may request that the department issue a final decision, and the department shall issue a final decision within 10 days of receipt of the request. The department may deny an application if the manufacturer/applicant fails to make the application sufficient after a reasonable opportunity to do so. For each determination, the department shall send an applicant a detailed statement explaining the reasons why the department has determined the application to be deficient, or why it has denied the application.

...

(f) Pursuant to ~~Vehicle Code section 38750 subsection (e)(2), approval of an application submitted under section 228.06 (b) will be effective no sooner than 180 days after the application was submitted.~~

Rationale: We recommend that the Department set and abide by defined time limits to ensure that the review process does not drag on indefinitely and that the applicant can have sufficient certainty about the timing of the review process to facilitate business planning and investment decisions. A process that lacks defined time limits creates excessive uncertainty and is a disincentive to testing and deployment of autonomous vehicles in California. We recommend following the same general process for review as set forth in our recommended edits to § 227.20 (i.e. a two-stage review process -- for completeness within 10 days, and for sufficiency/deficiency within 30 days of receipt of the completed application -- with an opportunity to correct continuing deficiencies as set forth above). Also, in the event the department identifies a deficiency and/or denies an application, rather than just a bare conclusion, the applicant should be given an explanation of why the Department has made those determinations. Finally, in subsection (f), given that the 180-day waiting period is currently a statutory requirement, we recommend striking this language as it is unnecessary. We understand there is pending legislation to repeal this requirement, and thus striking the language would also remove any ambiguity concerning its applicability in the event the pending legislation is enacted.

§ 228.16

Recommended revision: The department may refuse an Application for a Permit to Deploy Autonomous Vehicles on Public Streets ~~and may suspend or revoke such a Permit~~ for any of the following:

(a) If a manufacturer **fails to meet the requirements of section 228.06** ~~violates any provision of Vehicle Code section 38750, subsection (c), or this Article.~~

(b) For 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.

If the department refuses an application, the refusal shall be provided in writing accompanied by a letter explaining its reasoning in detail.

Rationale: The Department's authority to suspend or revoke a permit is addressed separately in section 228.20, so we recommend deleting the reference to "suspend or revoke" here. Similarly, while a violation of Vehicle Code § 38750(c) might be relevant for a suspension or revocation of an AV permit, the relevant criteria for determining whether to grant or refuse a post-testing deployment permit application is set forth in section 228.06 -- our edits clarify that point. Finally, rather than just a bare conclusion, the applicant should be given an explanation of why the Department has refused its application.

§ 228.20(a)

Recommended revision: The department will provide a 30-day written notice to the manufacturer before suspending or revoking the Permit to Deploy Autonomous Vehicles on Public Streets. **The notice will explain in detail the basis for the suspension or revocation.** The department may suspend or revoke a Permit to Deploy Autonomous Vehicles on Public Streets for any of the following reasons....

Rationale: *Rather than just a bare conclusion, the applicant should be given an explanation of why the Department has suspended or revoked its application.*

§ 228.20(b)

Recommended revision: The department may immediately suspend the Permit to Deploy Autonomous Vehicles on Public Streets for any of the following reasons:

...

(5) 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, **unless the remedy for the defect or noncompliance is not immediately available and the manufacturer specifies actions to alter the vehicle that satisfactorily address the safety risk posed by the defect or noncompliance on an interim basis.**

Rationale: *Our proposed edit is to ensure continuity of operations in the event there is a NHTSA recall and the remedy for the defect or noncompliance is not immediately available, but there are actions specified by the manufacturer that can be taken to address the safety risk on an interim basis. Without this provision, it is possible that a commercial fleet could be shut down for months until the recall is ultimately resolved. An analogous provision in federal law can be found at 49 U.S. Code § 30120(i)(3)(C), which pertains to continuity of operations for rental car companies where the remedy for the defect or noncompliance is not immediately available but there is an interim method for addressing the safety risk.*

§ 228.24

Recommended revision:

(a) The manufacturer shall **disclose to any passenger in the vehicle that is not an employee, contractor, or designee of the manufacturer its privacy policy concerning information that may be collected about the passenger and how it is used** either:

(1) ~~Provide a written disclosure to the driver of an autonomous vehicle, and for vehicles that do not require a driver, the occupants of the vehicle, that describes the information collected by the autonomous technology that is not necessary for the safe operation of the vehicle; or,~~

(2) ~~Anonymize the information that is not necessary for the safe operation of the vehicle.~~

(b) ~~If the information is not anonymized, the manufacturer shall obtain the written approval of the operator of an autonomous vehicle to collect any information by the autonomous technology that is not necessary for the safe operation of the vehicle.~~

(c) ~~A manufacturer shall not deny use of an autonomous vehicle to any person on the basis that they do not provide the written approval specified in subsection (b) of this section.~~

Rationale: *As noted in our comments on the previous draft rule, information privacy is outside the purview and expertise of DMV, and the NHTSA Safety Assessment process already includes "Privacy" as one of the subject areas. To the extent the DMV has authority to regulate information privacy, it should be limited to requiring a manufacturer to provide a privacy policy which governs information collected about the passenger and how it is used.*

§ 228.28

Recommended revision: (a) The driver of any vehicle equipped with autonomous technology that performs the dynamic driving task but requires the driver to respond when there is a need to intervene, or as defined by the Society of Automotive Engineers, a level 3 vehicle, shall possess the proper class of license for the type of vehicle being operated.

~~(1) In the event that the autonomous vehicle requires the driver to take control of the vehicle or when the vehicle is operating outside of its approved operational design domain, the driver shall be responsible for the safe operation of the vehicle, including compliance with all traffic laws.~~

~~(2) The manufacturer of the vehicles described in this section shall be responsible for the safe operation of the vehicle, including compliance with all traffic laws applicable to the performance of the dynamic driving task, when the autonomous vehicle is operating in autonomous mode within its approved operational design domain.~~

~~(b) The manufacturer of any autonomous vehicle that is capable of performing all aspects of the dynamic driving task without reliance on the intervention of a driver, or as defined by the Society of Automotive Engineers, a level 4 or level 5 vehicle, shall be responsible for the safe operation of the vehicle at all times the vehicle is operating in its operational design domain, including compliance with all traffic laws.~~

Rationale: *Placing “responsibility for the safe operation of the vehicle” entirely on the manufacturer when the vehicle is operating in autonomous mode ignores the practical reality that the safe operation of the vehicle can be impacted by factors outside of the manufacturer’s control -- for example, an owner who does not maintain the vehicle’s tire pressure, a municipality that does not maintain its road signs, etc. We recommend deleting this section because existing tort law already contains well-established principles to establish responsibility and fault and apportion liability among relevant parties, and DMV should not disturb those principles through this regulation.*