#### Statement of Reasons

## for the Modified Regulatory Text

The Department of Motor Vehicles (department) proposes to amend Sections 227.00, 227.02, 227.22, 227.30, 227.32, 227.38, 227.40, 227.42, 227.50, and 227.54 in Article 3.7 and Sections 228.00, 228.02, 228.04, 228.06, 228.10, 228.16, 228.20, 228.24, 228.26, and 228.28 in Article 3.8, related to autonomous vehicles.

The department published notice of the proposed adoptions and amendments to Articles 3.7 and 3.8 on March 10, 2017. The comment period ended on April 24, 2017 with the department having received many written comments. The department also held a public hearing on April 25, 2017 in Sacramento. The public hearing was attended by nearly 100 individuals representing vehicle manufacturers, technology manufacturers, privacy advocates, consumer advocates, and local transportation agencies.

As a result of the written comments and the oral comments received at the public hearing, the department determined that further revisions are necessary to both Article 3.7 and Article 3.8.

#### § 227.00. Purpose.

Subdivision (c) is deleted. This subdivision is unnecessary because the effective date of the regulations are governed by the provisions of Vehicle Code section 38750.

#### **§ 227.02. Definitions.**

Subdivision (a) is amended to delete the reference to the vehicle being "operated or driven, without active physical control by a natural person sitting in the vehicle's driver's seat" and the phrase "monitoring the driving environment" was deleted and replaced with "supervising the autonomous technology's performance of the dynamic driving task". This amendment was necessary to ensure consistency with Vehicle Code section 38750. The word "both" has been replaced with "and/or" to indicate that the hardware and software can be either in the vehicle or remote. This amendment was necessary because requiring the technology to be "both remote and on board" could be unnecessarily limiting on the development of the technology; changing it to "and/or" provides the flexibility that the technology can reside either entirely, or partially, on or off-board.

Subdivision (b) is amended to delete the phrase "means any vehicle equipped with technology that has the capability of operating or driving the vehicle without the 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 natural person". This phrase is unnecessary because it repeats other language in the subdivision. The phrase "with or without a natural person continuously controlling the vehicle or continuously monitoring the vehicle's performance in the driving environment" has been changed to "when engaged, performs the dynamic driving task but requires a human test driver to continuously supervise the vehicle's performance of the dynamic driving task." This change

was necessary to clarify that a person would be supervising how the autonomous technology is performing the dynamic driving task, rather than monitoring the driving environment.

Subdivision (b)(2) was amended to accurately cite the September 2016 name change for standard J3016. Subdivision (b)(3) was amended to delete "agent" and add "designee." This change was necessary to make the language consistent with the words used in Vehicle Code section 38750 (b)(1).

Subdivision (d) was amended to add "status of the vehicle when it is under the active physical control". The addition of "status of the" and "when it" were necessary to make the definition clearer.

Subdivision (i) has been amended to add a definition for "minimal risk condition." Former subdivision (i) has been renumbered to subdivision (j). This amendment is necessary to define a requirement that has been added to the responsibilities of the remote operator and is specified in Section 228.06 (a)(2) as an option for vehicle operation when it is incapable of operating in autonomous mode.

Subdivision (j) has been renumbered from former subdivision (i). The addition of the phrase "geographic area" was necessary to clarify that an operational design domain can include specific locations in addition to specific roadway types, speeds, and environmental conditions.

Subdivision (k) has been renumbered from former subdivision (j). Former subdivision (k) has been renumbered to subdivision (m).

Former subdivision (l) has been renumbered to subdivision (n). Subdivision (l) has been amended to specify that "personal information" is information that is not necessary for the safe of the operation of a vehicle that is collected by a manufacturer and can be linked to a specific vehicle, registered owner, lessee, or passenger using a vehicle for transportation purposes. This definition was necessary clarify a manufacturer's responsibilities with respect to information privacy.

Former subdivision (m) is has been renumbered to subdivision (o).

Subdivision (n) is former subdivision (l). The subdivision has been amended to clarify that the remote operator can be a person not seated in the driver's seat of the vehicle who is able to perform the dynamic driving task for the vehicle or cause it to achieve a minimal risk condition. This amendment was necessary to allow operation where the remote operator could be seated in the vehicle, but not physically in the driver's seat and to allow the actual remote operation of the vehicle when necessary.

### § 227.04. Requirements for a Manufacturer's Testing Permit.

No additional amendments are being made to Section 227.04.

# § 227.06. Evidence of Financial Responsibility.

No additional amendments are being made to Section 227.06.

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### § 227.08. Instrument of Insurance.

No additional amendments are being made to Section 227.08.

## § 227.10. Surety Bond.

No additional amendments are being made to Section 227.10.

#### § 227.12. Certificate of Self-Insurance.

No additional amendments are being made to Section 227.12.

# § 227.14. Autonomous Test Vehicles Proof of Financial Responsibility.

No additional amendments are being made to Section 227.14.

#### § 227.16. Identification of Autonomous Test Vehicles.

No additional amendments are being made to Section 227.16.

# §227.18. Manufacturer's Testing Permit and Manufacturer's Testing Permit – Driverless Vehicles.

No additional amendments are being made to Section 227.18.

## § 227.20. Review of Application.

No additional amendments are being made to Section 227.20.

#### § 227.22. Term of Permit.

Section 227.22 is amended to clarify that the renewal schedule for a testing permit will be every two years, as specified in subsection (a), and the fee will be paid on a biennial basis, as specified in subsection (b).

The original amendments to Section 227.22, (which the department provided, for public comment from March 10, 2017 through April 24, 2017) amended the manufacturer's testing permit fee from \$150 to \$3,600. The objective of the fee increase is to ensure the department is adequately recovering the costs incurred in the autonomous vehicles testing program. The fee represents all activities involved in processing and reviewing the application for a permit to test with driver and driverless autonomous vehicles on public streets. Detailed costing is available upon request to interested parties by contacting the department representative identified in the initial statement of reasons or the Notice of Modification.

	PERMIT COSTS			
	TESTING OF AUTONOMOUS AND DRIVERLESS VEHICLES			
Number of Permits			60	
Personal Services Cost	\$ 158,843.16	\$	2,647.39	
Operating Expenses & Equipment	\$ 482.16	\$	8.04	
Overhead @ 35.60%	\$ 56,548.16	\$	942.47	
Total	\$ 215,873.48	\$	3,597.89	

## § 227.24. Enrollment in Employer Pull Notice Program.

No additional amendments are being made to Section 227.24.

#### § 227.26. Prohibitions on Operation on Public Roads.

No additional amendments are being made to Section 227.26.

## §227.28. Vehicles Excluded from Testing and Deployment.

No additional amendments are being made to Section 227.28.

# § 227.30. Manufacturer's Testing Permit Application.

Subdivision (b) has been amended to require that a manufacturer notify the department of any change to the manufacturer's name or contact information within ten days of the change. Since the department began issuing testing permits in 2014 there have been instances where manufacturers have changed their names or the contact person on the original application has left the manufacturer. This amendment is necessary to require manufacturers to formally notify the department when those changes occur.

Subdivision (c) is former subdivision (b).

#### § 227.32. Requirements for Autonomous Vehicle Test Drivers.

Subdivision (c) is amended to add that the autonomous vehicle test driver must obey all provisions of the Vehicle Code and local regulation applicable to the operation of motor vehicles whether the vehicle is in autonomous or conventional mode "except when necessary for the safety of the vehicle's occupants and/or other road users." This amendment is necessary to allow the test driver to deviate from the requirements of the Vehicle Code or local regulation when necessary to ensure safety.

#### § 227.34. Autonomous Vehicle Test Driver Qualifications.

No additional amendments are being made to Section 227.34.

## § 227.36. Autonomous Vehicle Test Driver Training Program.

No additional amendments are being made to Section 227.36.

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

Subdivision (a) has been amended to delete the requirement that manufacturers must notify local authorities "of the operational design domain of the vehicles to be tested and the testing had been coordinated with those local authorities" and "coordinate testing with the local authorities. Many comments received during the 45 day comment period pointed out that "notify" and "coordinate" are ambiguous and that the section provided no guidance as to who must receive the notification. The subdivision has been amended to reference the definition of "local authorities" in Vehicle Code section 385 and to require that a written notification that contains: the operational design domain of the test vehicles, a list of the public roads where the vehicles will be tested, the date the testing will begin, the times of the day that testing on public roads will occur, the number and type of vehicles to be tested; and the contact information for the manufacturer's contact person. These amendments were necessary to define the public entities that must be notified of the testing and to provide clarity on what information must be included in that notification.

Subdivision (b) has been amended to clarify that a manufacturer must certify that to the extent the manufacturer's autonomous technology causes the vehicle to be at-fault in a collision, the manufacturer will assume liability for damages caused by the vehicle in accordance with applicable law. This change was necessary to clarify that a manufacturer will only assume liability that arises when the autonomous technology is at fault in a collision, but only within the bounds of existing law.

Subdivision (c) is amended to clarify that the provisions of the section apply to "autonomous test vehicles". The amendment is necessary to incorporate the term that is defined in section 227.02 (b). Subdivision (c) continues to require that manufacturers certify that they have the ability to communicate with and monitor the operation of their driverless vehicles as well as provide a method of exchanging owner information with other road users and law enforcement. Subdivision (c)(1) requires manufacturers to certify that the test vehicles have a communication link between the vehicle and a remote operator that allows two-way communication. The department has not specified a particular technology or method that must be utilized for the two-way communication. Manufacturers have the flexibility to innovate and determine a system of communication that works best with their autonomous vehicles.

Subdivision (d) is amended to require a certification that the vehicles permitted under this section are capable of operation without a driver and meet the SAE International's description of a level 4 or level 5 vehicle. This amendment is necessary to ensure that testing without a driver is only done in vehicles capable of operating without a driver.

Subdivision (e) is renumbered from former subdivision (d). The subdivision is amended to specify that a revised Autonomous Vehicle Tester Program Application for a Manufacturer's Testing Permit – Driverless Vehicles (form OL 318) must be submitted when there is a significant change in operational design domains. This amendment is necessary to avoid the

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need to file an update with the department when there are minor changes to the operational capabilities of the vehicles.

Subdivision (f) is renumbered from former subdivision (e). The subdivision is amended to define a "first responder" as law enforcement, fire department, and emergency medical personnel. This amendment is necessary to clarify the type of first responders that must receive the law enforcement interaction plan.

Subdivision (f)(1) (A) is amended to delete the requirement that the plan include information on verifying that the remote operator is a licensed driver and to require that the remote operator be available to assist law enforcement at all times that the vehicle is in operation. Requiring the that the remote operator be available at all time the vehicle is in operation is necessary to assist law enforcement in traffic violation or traffic accident situations. Subdivision (f)(1)(F) is amended to require information on how to interact with electric or hybrid vehicles only when applicable. This amendment is necessary to clarify that manufacturers that are not testing electric or hybrid vehicles do not need to provide unnecessary information. Subdivision (f)(1)(H) is deleted due to lack of necessity.

Subdivision (f)(2) is amended to require that the law enforcement interaction plan must be updated as changes are necessary, but no less than on an annual basis. This amendment is necessary to provide specificity on when the plan must be updated.

Subdivision (f)(3) is amended to require that the plan be submitted electronically to the California Highway Patrol (CHP). This amendment is necessary to clarify that a hard copy of the plan is not required to be submitted to the CHP and may be submitted by e-mail.

Subdivision (g) is renumbered from former subdivision (f). The subdivision is amended to delete the requirement that the remote operator complete the manufacturer's test driver training program and to add the requirement that the remote operator had received sufficient training to enable him or her to safely execute the duties of the remote operator. This change is necessary because a remote operator does not need to receive training that is relevant for the driver of a vehicle equipped with conventional controls. Subdivision (g)(1) adds the phrase "that could be" to clarify that potential hazardous driving scenarios should be addressed.

Subdivision (h) is renumbered from former subdivision (g). The subdivision is amended to delete the requirement manufacturers submit a copy of the safety assessment letter that has been submitted to NHTSA. The subdivision has been amended to require that manufacturers that have publicly disclosed an assessment of their approach to safety provide a copy to the department. This amendment is necessary because in September 2017, NHTSA issued *Automated Driving Systems: A Vision for Safety*, which indicated NHTSA will not require the submission of the "voluntary safety self-assessment" and encourages manufacturers to publicly disclose their approaches to achieving safety.

Subdivision (i) is renumbered from former subdivision (h). The section is amended to delete the phrases "member of the public" and "concerning passengers is collected by the autonomous vehicle", and the phrase "that may be collected about the passenger and how it will be used" has

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been added. These amendments were necessary to simplify the subsection by eliminating redundant language and relying on the definitions provided in Section 227.02.

Subdivision (j) is renumbered from subdivision (i).

Subdivision (k) is adopted to require that a manufacturer notify the department of any change to the manufacturer's name or contact information within ten days of the change. Since the department began issuing testing permits in 2014 there have been instances where manufacturers have changed their names or the contact person on the original application has left the manufacturer. This amendment is necessary to require manufacturers to formally notify the department when those changes occur.

Subdivision (I) is adopted to require a manufacturer to submit a revised form OL 318 prior to implementing changes including making the vehicle capable of operating at a SAE International level that is different than and/or in addition to the level in the approved permit, making the vehicle capable of operating on a roadway type that is different than those on the approved permit, increasing the maximum speed of the vehicle by more than 15 miles per hour, or making the vehicle capable of operation in a geographic area that is different that and/or in addition to those on the approved permit. This amendment is necessary to address concerns that the regulations as initially proposed did not provide sufficient specificity with respect to when an amended application must be filed with the department.

Subdivision (m) is renumbered from former subdivision (j).

### § 227.40. Refusal of Autonomous Vehicle Testing Permit or Testing Permit Renewal.

Subdivision (c) has been added to specify that the department will provide a written notice of refusal to issue a permit in the format established in Government Code section 11504. This amendment is necessary to specify the administrative process that will be followed by the department to provide notice and the reasons for a refusal to issue a permit.

### § 227.42. Suspension or Revocation of Autonomous Vehicle Testing Permit.

The reference to a "Manufacturer's Testing Permit" in subdivision (b) has been deleted. This amendment is necessary because the requirements for the suspension or revocation of that permit is already specified in subdivision (a). Subdivision (b)(4) is amended to refer to disclosure requirements of section 227.38 (i). This amendment is necessary to conform the language of this subdivision with the amended language of section 227.38 (i).

Subdivision (c) is amended to specify that the department will provide a written notice of suspension or revocation and follow the procedures specified in Government Code section 11505. This amendment is necessary to specify the administrative process that will be followed by the department to provide notice and the reasons for a suspension or revocation.

### § 227.44. Demand for Hearing.

No additional amendments are being made to Section 227.44.

# § 227.46. Reinstatement of Testing Permit.

No additional amendments are being made to Section 227.46.

## § 227.48. Reporting Collisions.

No additional amendments are being made to Section 227.48.

## §227.50. Reporting Disengagement of Autonomous Mode.

Subdivision (b) is amended to delete the requirement that disengagements be summarized for each month. Subdivision (b)(3)(B) requires that the annual report summarize the circumstances or testing conditions at the time of disengagements. The phrase "and whether the disengagement was the result of a planned test of the autonomous technology" has been removed from (b)(3)(B)(iii). Subdivision (b)(3)(B)(v), which also required the reporting "whether the disengagement was safety related or a planned test", has been deleted. These changes are necessary because the department is not requiring the reporting of planned disengagements. Comments received during the 45-day comment period suggested that subdivision (b)(3)(B)(vi) would require manufacturers to speculate about future events that have not occurred, consequently this subdivision has been deleted. Subdivision (b)(3)(C) has been renumbered to Subdivision (b)(4) and has been amended to clarify that the annual report shall include the total number of miles each autonomous vehicle has been tested on public roads. Subdivision (b)(3)(D) has been deleted because "the period of time that elapsed from when the autonomous test driver was alerted of the technology failure and to when the driver assumed manual control of the vehicle" may be difficult to measure when the disengagement was initiated by the driver.

Subdivision (c) is added to incorporate by reference the Annual Report of Autonomous Vehicle Disengagement Form OL 311R, which contains the reporting elements that are specified in subdivision (b)(3). The department's existing testing regulations became effective in September 2014 and based on the annual reports submitted in January 2016 and January 2017 the department has determined that it will be useful to both manufacturers and the department to have a common format for the reporting of disengagement data. This change is necessary to provide manufacturers with a common format for providing disengagement data to the department.

# § 227.52. Test Vehicle Registration and Certificates of Title.

No additional amendments are being made to Section 227.52.

#### §227.54. Transfers of Interest or Title for an Autonomous Test Vehicle.

Subdivision (d) has been added to allow a manufacturer to internally dismantle or dispose of a vehicle and its major component parts. This amendment is necessary to clarify that a manufacturer is not required to transfer title of a vehicle to a dismantler to be dismantled.

# §228.00. Purpose

The section has been amended to add "or the manufacturer has received the appropriate exemption from the National Highway Traffic Safety Administration." This amendment was necessary to recognize that NHTSA has authority under the federal Safety Act to grant exemptions from the federal motor vehicle safety standards.

Subdivision (c) is deleted. This subdivision is unnecessary because the effective date of the regulations are governed by the provisions of Vehicle Code section 38750.

#### §228.02. Definitions

Subdivision (a) is amended to delete the requirement of recording autonomous technology sensor data for "at least 5 seconds after a collision or until the vehicle comes to a complete stop, whichever is later." This amendment was necessary to make the requirements of the section consistent with the language of Vehicle Code section 38750.

Subdivision (b) is amended to delete the unnecessary phrase "whether or not the technology is engaged", and to accurately cite the September 2016 name change for SAE standard J3016.

Subdivision (c) is amended to delete "other testing entity". This amendment is necessary because Vehicle Code Section 38750 only authorizes manufacturer, as defined, to test autonomous vehicles; consequently deployment would only apply to the operation of vehicles that are not employees, contractors, or designees of a manufacturer. The section has been amended to clarify that deployment also includes the "sale, lease, providing transportation services for a fee, or otherwise making" an autonomous vehicle "available outside of a testing program." This amendment clarifies the definition of deployment and this clarification eliminates the need for (c)(1) and (2).

# §228.04. Financial Requirements for a Permit to Deploy Autonomous Vehicles on Public Roads.

Subdivision (a)(4) is amended to correct the mistaken numbering reference to Section 227.12.

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

Subdivision (a) is amended to correct the mistaken numbering reference to Sections 227.30 and 227.38.

Subdivision (a)(2) is amended to delete the requirement that a manufacturer certify that the autonomous vehicles are designed to be incapable of operating in autonomous mode under the identified commonly occurring restricted conditions. The section is amended to require a manufacturer to identify how a vehicle will react under commonly occurring or restricted conditions. This amendment is necessary to address comments received during the 45-day comment period that the proposed regulation is biased toward a particular deployment model, and ensures that the department is advised on how manufacturers will handle events that fall outside of their operational design domain.

Subdivision (a)(3) is amended to add that a manufacturer shall describe the mechanism for safely disengaging out of autonomous mode when the vehicle experiences conditions outside of its operational design domain. This addition is necessary to provide flexibility for different deployment models, including both sale to the public and fleet operations where the manufacturer might have an alternate mechanism to keep the vehicle from being operated outside of it operational design domain.

The original amendments to former subdivision (a)(3), (which the department provided, for public comment from March 10, 2017 through April 24, 2017) adopted a fee of \$ 3,275 for a permit for post-testing deployment of an autonomous vehicle. The objective of the adopted fee is to ensure the department is adequately recovering the costs incurred in the autonomous vehicles deployment program. The fee represents all activities involved in processing and reviewing the application for a permit to deploy autonomous vehicles on public streets. Detailed costing is available upon request to interested parties by contacting the department representative identified in the initial statement of reasons or the Notice of Modification.

		PERMIT COSTS			
	DEPI	DEPLOYMENT OF AUTONOMOUS VEHICLES			
Number of Permits				60	
Personal Services Cost	\$	144,542.39	\$	2,409.04	
Operating Expenses & Equipment	\$	514.31	\$	8.57	
Overhead @ 35.60%	\$	51,457.09	\$	857.62	
Total	\$	196,513.79	\$	3,275.23	

Due to the adoption of subdivision (a)(3), former subdivisions (a)(3) through (a)(10) are renumbered to subdivisions (a)(4) through (a)(11), respectively.

Subdivision (a)(6) is amended to delete the requirement that the autonomous technology data recorder capture and store autonomous technology sensor data "at least 5 seconds after, or until the vehicle comes to a complete stop after a collision, whichever is later". This amendment is necessary to conform the language of the regulation to the Vehicle Code section 38750 (c)(1)(G).

Subdivision (a)(7) is amended to correct a minor grammatical error, the word "exception" has been replaced with "exemption. This amendment is necessary because under the federal Safety Act NHTSA does not grant exceptions. The Safety Act gives NHTSA authority to grant "exemptions" to the federal motor vehicle safety standards.

Subdivision (a)(9) is amended to delete "operation of motor vehicle" and add "performance of the dynamic driving task in the vehicle's operational design domain". This amendment is necessary to address concerns that as originally proposed, the language was too broad and could include things that are beyond the control of an advanced driver assistance system. The word

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"for" had been replaced with "enhance" and "when necessary to complete a trip, provided the safety of the vehicle's occupants and/or other road users is maintained," has been added to clarify that autonomous technology may be programmed to take action necessary to enhance the safety of vehicle occupants and surrounding road users.

Subdivision (a)(9)(B) is amended to clarify that the required updates to the location and mapping information should be related to the operation of the vehicle in its operational design domain and be consistent with changes in the physical environment. This amendment is necessary to ensure that manufacturers do not have to provide updates that are not relevant to the safe operation of the vehicle.

Subdivision (a)(10) is amended to delete the requirement that the vehicles have "self-diagnostic capabilities" for cybersecurity because cybersecurity measures should be allowed to go beyond just having self-diagnostic capabilities. The subdivision is amended to require that vehicles meet "appropriate and applicable" current industry standards "to help defend against, detect, and respond to cyber-attacks, unauthorized intrusions, or false vehicle control commands." This amendment is necessary to ensure that manufacturers comply with industry standards that are appropriate and applicable to their autonomous systems.

Subdivision (b)(1) has minor grammatical corrections that are necessary to provide clarity. Subdivision (b)(1) requires manufacturers certify that, if applicable to the level of autonomous technology and the method that the technology is being deployed, the vehicles have a communication link between the vehicle and a remote operator that allows two-way communication. The department has not specified a particular technology or method that must be utilized for the two –way communication. Manufacturers have the flexibility to innovate and determine a system of communication that works best with their autonomous vehicles.

Subdivision (b)(3) is amended by to clarify that the manual controls are related to "completing the dynamic driving task.

Subdivision (c)(1) is amended to clarify that a consumer or end user education plan should only be provided when a manufacturer intends to sell or lease vehicles to persons other than the manufacturer. This amendment is necessary to clarify that a plan does not have to be provided in situations of manufacturer-operated fleets of vehicles. Subdivision (c)(1)(D) and (c)(3) are amended to correct the references to amended section 227.38(f).

Subdivision (c)(7) is amended to require the submission of a summary describing the testing of the autonomous technology including the number of miles vehicles were tested on public or private roads or tracks, the methods used to validate performance, and collisions involving autonomous test vehicles. This amendment is necessary to ensure that manufacturers provide information to the department to substantiate the testing that was completed to support the manufacturer's certification that it has conducted testing and is satisfied that the vehicles are safe for deployment.

Subdivision (d) is amended to delete the requirement manufacturers submit a copy of the safety assessment letter that has been submitted to NHTSA. The subdivision has been amended to require that manufacturers that have publicly disclosed an assessment of their approach to safety

provide a copy to the department. This amendment is necessary because in September 2017, NHTSA issued *Automated Driving Systems: A Vision for Safety* in which NHTSA has indicated it will not require the submission of the "voluntary safety self-assessment" and encourages manufacturers to publicly disclose their approaches to achieving safety.

# §228.08. Review of Application.

No additional amendments are being made to Section 228.08.

## §228.10. Amendment of Application.

Subdivision (b) has been amended to delete "new" and clarify that an "amended" application must be submitted when there are changes involving: the addition of functionality that makes a vehicle capable of operating in a different SAE level; roadway types such that the vehicles will be capable of operating on roadways that are different from and/or additional to those specified for the approved permit; the addition of functionality that will increase the maximum speed of the vehicle; making the vehicle capable of operating in geographic areas different than and/or in addition to those in the approved permit; and, removing commonly-occurring or restricted conditions that were identified on the permit. This amendment is necessary to address concerns that the regulations as initially proposed did not provide sufficient specificity with respect to when an amended application must be filed with the department.

# §228.12. Reporting Safety Defects.

No additional amendments are being made to Section 228.12.

#### §228.14. Conditions Related to the Term of Permit.

Is amended to delete subdivision (b). As originally proposed, subdivision (b) stated that a manufacturer shall only allow deployment of autonomous vehicles in autonomous mode by the general public for the period of time that the Permit to Deploy is valid; however, Section 228.00 (b) provides that an "autonomous vehicle shall not be deployed on public roads in California except as permitted under Vehicle Code section 38750 and the regulations in this article", and Section 228.06 (a) provides that "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 Vehicle on Public Streets...." Sections 228.00 and 228.06 already indicate that a manufacture must have a valid permit issued by the department to deploy autonomous vehicles on public streets. Moreover any vehicle already sold or leased would be subject to any NHTSA imposed recall if there is a defect that creates an unreasonable risk to public safety. This amendment is necessary to delete a duplicative requirement.

#### §228.16. Refusal of an Application for a Permit to Deploy.

Subdivision (c) has been added to specify that the department will provide a written notice of refusal to issue a permit in the format established in Government Code section 11504. This

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amendment is necessary to specify the administrative process that will be followed by the department to provide notice and the reasons for a refusal to issue a permit.

# §228.18. Demand for Hearing on Refusal of Permit.

No additional amendment are being made to Section 228.18.

## §228.20. Suspension or Revocation of Permit.

Subdivision (a) is amended to specify that the department will provide a written notice of suspension or revocation in the format established in Government Code section 11505. This amendment is necessary to specify the administrative process that will be followed by the department to provide notice and the reasons for a suspension or revocation.

Subdivision (b)(4) is amended by adding the "National Highway Traffic Safety Administration determines that the" autonomous technology make inoperative any federally required motor vehicle safety standard. Subdivision (b)(5) is amended to clarify that an immediate suspension of a manufacturer's Permit to Deploy will apply only to vehicles that NHTSA has deemed to be subject to an open recall. These amendment are necessary because the Federal Safety Act places the responsibility for determining compliance with motor vehicle safety standards and vehicle recalls with NHTSA.

Subdivision (c) is amended to clarify that upon suspension or revocation of a Permit to Deploy, a manufacturer must cease further deployments affected autonomous vehicles with the affected autonomous technology feature enabled. This amendment is necessary to allow manufacturers to disable the affected autonomous technology feature while still allowing the vehicles to operate without the affected feature enabled.

# §228.22. Administrative Procedures for a Suspension or Revocation of Permit.

No additional amendments are being made to Section 228.22.

## §228.24. Information Privacy.

Subdivision (a)(1) is amended to replace "occupants" with "passengers" and to add "personal" information. These amendments are necessary to use defined terms. Subdivision (a)(1) is further amended to require disclosure of how the information will be used. This provision is necessary to ensure consistency with the testing regulations.

Subdivision (b) is amended to require, if the information collected is not anonymized, written approval from a registered owner or lessee to collect personal information that is not necessary for the safe operation of the vehicle is required. This amendment is necessary to ensure the privacy of the vehicle owner and allow them an opportunity to opt in to information collection.

### §228.26. Registration of Autonomous Vehicles.

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A minor grammatical correction has been made to the heading with the insertion of the word "of".

# §228.28. Driver and Manufacturer Responsibility.

Subdivision (a) is amended to remove unnecessary verbiage relating to autonomous technology that requires a driver and is instead specifying SAE level 3.

Subdivision (a)(2) is amended to specify that manufacturers are responsible for the vehicle's safe operation when the vehicle has been maintained in compliance with the manufacturer's specifications and modifications to the vehicle. This amendment is necessary to establish the circumstances when the manufacturer is responsible for level 3 vehicle operations.

Subdivision (b) is amended to clarify a manufacturer's responsibility for vehicles that are level 4 or 5 as defined by SAE International with the addition of "where such vehicle has been maintained in compliance with the manufacturer's specifications and any modification to the vehicle that affect the operation of the vehicle's autonomous technology are in compliance with the manufacturer's specifications. This amendment is necessary to ensure that manufacturers are not responsible when other modifications to vehicles or failures to maintain vehicles to manufacturer specifications may impact the vehicles' ability to perform the dynamic driving task in compliance with applicable laws.

# §228.30. Statements About Autonomous Technology.

Subdivisions (a)(1) and (b) are amended to correct mistaken numbering references.