

Initial Statement of Reasons
Title 13, Division 1, Chapter 1
Article 3.7 – Testing of Autonomous Vehicles
Article 3.8 – Deployment of Autonomous Vehicles

PURPOSE

The Department of Motor Vehicles proposes amending Article 3.7 related to the testing of autonomous vehicles and adding Article 3.8 related to the deployment of autonomous vehicles.

Senate Bill 1298 (Chapter 570; Statutes of 2012) enacted Vehicle Code §38750 which requires the DMV to adopt regulations necessary to ensure the safe operation of autonomous vehicles on public roads, with or without the presence of a driver inside the vehicle. The department initially adopted regulations for the testing of autonomous vehicles that require the presence of a driver inside the vehicle in 2014. Currently there are 23 manufacturers testing autonomous vehicles with test drivers behind the wheel on public streets in California. Senate Bill 1298 contemplated that the technology being developed would include vehicles that do not require the presence of a driver inside the vehicles. Since the adoption of the current testing regulations, the capabilities of autonomous technology has proceeded to the point where manufacturers have developed systems that are capable of operating without the presence of a driver inside the vehicle.

The department is amending Article 3.7 to include the testing of vehicles that do not require the presence of a driver inside the vehicle and ensure the testing of such vehicles is conducted on California public roads in a safe manner. In Article 3.7 the department has set forth all of the requirements for a Manufacturer's Testing Permit, which is the permit issued to manufacturers testing vehicles that require a driver inside the vehicle, and a Manufacturer's Testing Permit – Driverless Vehicles, which is the permit issued to manufacturers testing vehicles that do not require a driver. The proposed regulations promote the development of autonomous technology that has the potential to increase safety and enhance mobility, while focusing on issues related to roadway safety, compliance with California laws, driver licensing, and vehicle registration.

Vehicle Code §38750 requires the DMV to adopt regulations setting forth the requirements for the submission and approval of an application by autonomous vehicle manufacturers, as defined by subdivision (a) of that section, for the operation of autonomous vehicles by the public on public roads. For ease of reference the department refers to the operation of autonomous vehicles by members of the public as "deployment." Vehicle Code §38750 also requires that the regulations include requirements that the DMV concludes are necessary for the safe operation of autonomous vehicles on public roads. The department is adding Article 3.8 to specify the requirements to deploy autonomous vehicles, including vehicles that do not require the presence of a driver inside the vehicle.

In the National Traffic and Motor Vehicle Safety Act of 1966 (49 U.S.C. section 30101 et seq.; “Safety Act”), Congress directed the U.S. Department of Transportation to prescribe motor vehicle safety standards. The National Highway Traffic Safety Administration (“NHTSA”) is vested with the authority to develop Federal Motor Vehicle Safety Standards (“FMVSS”) (49 C.F.R. Part 501, section 501.3). Under the Safety Act, no motor vehicle can be sold for use on public roads in the United States unless the vehicle manufacturer certifies that the vehicle meets the performance requirements specified in the FMVSS adopted by the NHTSA.

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. The proposed regulations require manufacturers to certify that their autonomous vehicles meet FMVSS. For vehicles that diverge from conventional vehicle designs, the department proposes that the manufacturer provide evidence of an approved exemption from NHTSA or an exemption authorized by Federal law. For testing without a driver and deployment of all levels of autonomous vehicles, the proposed regulations require the manufacturer to submit a copy of their 15-point safety assessment letter submitted to NHTSA pursuant to the “Vehicle Performance Guidance for Automated Vehicles” in NHTSA’s *Federal Automated Vehicles Policy*. The manufacturer’s participation in the safety assessment process provides further evidence to the department that the manufacturer has engaged in a robust design, development, and testing process and is collaborating with NHTSA at the federal level on vehicle safety topics.

PROBLEMS THIS DEPARTMENT INTENDS TO ADDRESS AND BENEFITS ANTICIPATED FROM THE REGULATORY ACTION:

These proposed regulations make specific the requirements that must be satisfied for issuance of a permit to test and deploy autonomous vehicles with or without a driver inside the vehicle on the public roadways of the State of California. These regulations are expanded to implement application and other requirements for driverless vehicles, provisions related to the suspension of an autonomous vehicles testing permit, implement application and other requirements for the deployment of autonomous vehicles, and provide clarification to existing autonomous vehicle regulations. These regulations will allow autonomous vehicle manufacturers, as defined in Vehicle Code §38750, to develop and test autonomous vehicles, including vehicles that can operate without a driver inside the vehicle, on public roadways and to deploy those vehicles in a way that addresses public safety concerns.

ALTERNATIVES CONSIDERED:

The department considered prohibiting the testing of vehicles capable of operation without the presence of a driver inside the vehicle; however, the rapid advancement in the development of

autonomous technology and the desire to commence testing of vehicles that could provide mobility options led the department to conclude that regulations should be developed to permit the testing of driverless vehicles on public roads.

The department considered requiring manufacturers to have a vehicle demonstration test conducted by an independent third party to assess the vehicles' capability to perform driving tasks and the submission of a demonstration test report certifying that the vehicles performed as necessary to operate safely on public streets. The department conducted two workshops in which the proposal was discussed and received numerous comments regarding the difficulty of performing demonstration tests that would provide an assurance of vehicle safety. The department concluded that the inability to formulate a pass/fail criteria that would be used by all third party demonstration testers would lead to anomalous results and, therefore, the third party demonstration tests would not uniformly determine the safe operation of all vehicles.

The department considered requiring that manufacturers certify that their vehicles will be maintained to the FMVSS to which they are originally manufactured. However, compliance with this requirement would be difficult in situations where a manufacturer has no control on how a vehicle is maintained by its owner.

COMPARABLE FEDERAL AND STATE REGULATIONS:

NHTSA establishes motor vehicle safety standards on the federal level. On May 30, 2013, NHTSA issued a "Preliminary Statement of Policy Concerning Automated Vehicles" to "help states implement this technology safely so that its full benefits can be realized." The NHTSA policy statement affirmed that "NHTSA is responsible for developing, setting, and enforcing Federal motor vehicle safety standards (FMVSSs) and regulations for motor vehicles and motor vehicle equipment."

On September 20, 2016, NHTSA released the *Federal Automated Vehicles Policy* ("Policy") to establish a national framework for the safe testing and deployment of highly automated and autonomous vehicles. NHTSA's *Policy* includes a "Vehicle Performance Guidance for Automated Vehicles" which outlines best practices for the design, development and testing of automated vehicles. The Guidance describes a "safety assessment letter" reporting process for manufacturers to outline how they are meeting the Guidance. NHTSA has not yet finalized the safety assessment submission process. NHTSA has not adopted any regulations governing the testing or operation of automated, or self-driving, vehicles on public roads, streets, and highways. Even though NHTSA has not adopted specific standards for autonomous technology, unless granted an exception by NHTSA or as allowed by Federal law, a vehicle cannot be sold with technology that makes inoperative any of the existing standards adopted by NHTSA to ensure that the vehicle is safe for operation on public roads. Additionally, the department

conducted a review of other agencies and found that no other state agency currently has regulations governing autonomous vehicles, therefore, there are no comparable federal or state regulations concerning the testing or deployment of autonomous vehicles on public roads.

Article 3.7 Testing of Autonomous Vehicles

The title of Article 3.7 has been amended to clarify that the regulations in the Article apply to the testing of autonomous vehicles.

§ 227.00. Purpose.

Subdivision (c) is added to clarify that the amendments to the regulations in Article 3.7 do not become effective until 120 days after adoption by the department. This amendment is necessary to advise existing permit holders that, consistent with the requirement in Vehicle Code §38750 (f), the amendments to these regulations do not impact their existing authority to test autonomous vehicles and to advise future applicants for a testing permit of the effective date of the amended regulations.

§ 227.02. Definitions.

In prior public workshops conducted by the department commenters have recommended that the department use terminology that is common in the field of automotive engineering to prevent uncertainty and ambiguity. The department is amending several definitions that are consistent with understanding in the field and are intended to prevent future uncertainty. The revised definitions are necessary to ensure the public is aware of the terminology used throughout Articles 3.7 and 3.8.

Subdivision (a) is amended to clarify the definition of autonomous mode by specifying that 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. The term “natural person” is used throughout the regulations because Vehicle Code §470 defines “person” to include “a natural person, firm, copartnership, association, limited liability company, or corporation”, and the department desires to make clear that in these regulations where the term “natural person” is used it does not include the other entities listed in Vehicle Code §470.

Subdivision (b) is amended to use terminology that is common in the field of automotive engineering and further clarifies that 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. Further, 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 Society of Automotive Engineers’ *Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems*.

Subdivision (c) is amended to add the word “test” to the definition.

Subdivision (e) is amended for clarification to remove the word “person” and add the word “autonomous vehicle test driver”.

Subdivision (f) is adopted to define the word “driver” as the natural person operating an autonomous vehicle when it is not operating in the autonomous mode.

Subdivision (g) is adopted to define “dynamic driving task” as all of the real-time functions required to operate a vehicle in on-road traffic, excluding selection of final and intermediate destinations, and including without limitation: object and event detection, recognition, and classification; object and event response; maneuver planning; steering, turning, lane keeping, and lane changing, including providing the appropriate signal for the lane change or turn maneuver; and acceleration and deceleration.

Subdivisions (f) and (g) are renumbered to subsections (h) and (k), respectively.

Subdivision (i) is adopted to define “operational design domain” as the specific conditions in which an automated system has been designed to properly operate.

Subdivision (j) is adopted to define “passenger” as the occupant of a vehicle who has no role in the operation of that vehicle when the autonomous technology is engaged and is not charged a fee to ride in the vehicle.

Subdivision (l) is adopted to define ‘remote operator’ as the person that engages and/or monitors a vehicle’s autonomous technology but is not sitting in the vehicle.

Subdivision (m) is adopted to define the word ‘testing’ as the operation of an autonomous vehicle on public roads by employees, contractors, or designees of a manufacturer for the purpose of assessing, demonstrating, and validating the autonomous technology’s capabilities.

FINANCIAL RESPONSIBILITY REQUIREMENTS – ALL TEST VEHICLES

§ 227.04. Requirements for a Manufacturer’s Testing Permit.

Subdivision (b) is amended to cite Section 227.38. This citation is necessary to clarify that this provision does not apply to vehicles that do not require a driver.

§ 227.06. Evidence of Financial Responsibility.

No amendments are made to Section 227.06.

§ 227.08. Instrument of Insurance.

No amendments are made to Section 227.08.

§ 227.10. Surety Bond.

No Amendments are made to Section 227.10.

§ 227.14 12. Certificate of Self-Insurance.

Subdivision (a) is amended to revise the revision date of the form OL 319 from NEW 9/2013 to Rev 2/2017. The only change to the form is found in Section 3 (Eligibility Acknowledgment) where the fourth check box down has been updated to reflect the correct citation of Section 227.12.

Subdivision (g) is added to state that any suspension, revocation, or other involuntary termination of the permission to satisfy the requirements of Vehicle Code section 38750(b)(3) are subject to the hearing requirements provided in the regulations for the suspension or revocation of permits or authorizations.

§ 227.~~12~~14. Autonomous Test Vehicles Proof of Financial Responsibility.

Section 227.12 is renumbered to Section 227.14 and the title has been amended to clarify that the provisions apply to autonomous test vehicles.

Subdivisions (a) and (b) are amended to add the word ‘test’ to clarify that the provisions address test vehicles. These amendments are necessary to avoid confusion at such a time when autonomous vehicles are available for public deployment.

MANUFACTURER’S TESTINT PERMIT – ALL TEST VEHICLES

§ 227.16. Identification of Autonomous Test Vehicles.

The title to Section 227.16 has been amended to add the word “test” for clarity. Subdivision (a) is also amended to add the word “test” for clarity. These amendments are necessary as the provisions of Section 227.18 only relate to test vehicles.

Subdivisions (a)(1) and (2) have been amended to allow other vehicle identifying information if the make, model, model year, and vehicle identification number of a vehicle are not available. These amendments are necessary because some test vehicles may not have model names, model years, or vehicle identification numbers.

§~~227.24~~18. Manufacturer’s Testing Permit.

Subdivision (a) has been amended to clarify that the prohibition on conducting testing without a Manufacturer’s Testing Permit also applies to testing without a Manufacturer’s Testing Permit - Driverless Vehicles.

The phrase “the real world conditions that the manufacturer intends to subject the vehicle to” has been replaced with “each Operational Design Domain in which the manufacturer intends to operate”, and the phrase “each Operational Design Domain” has been added. These changes were necessary because the department has added the concept of Operational Design Domain to the regulations.

§ ~~227.28~~20. Review of Application.

Section 227.28 is renumbered to Section 227.20. Subdivision (a) is amended to add that the department will review a Manufacturer’s Testing Permit - Driverless Vehicles form within 10 days of receipt. This provision is necessary to ensure manufacturers are aware that the department’s review period is consistent whether it is reviewing an application for a testing permit or a testing permit for driverless vehicles.

This section is also amended to adopt the Autonomous Vehicle Testing (AVT) Program Manufacturer Permit – Driverless Vehicles, form OL 315A, (NEW 2/2017)

AVT Program Manufacturer Permit – Driverless vehicles, form OL 315A

The form OL 315A is the document issued upon submission of an application and review and approval of the department. The OL 315A is required to be retained in the vehicle while testing and serves as verification, to a peace officer, for instance, of the manufacturer’s authorization to test autonomous vehicles on public roads.

The first requirement on this form is where the applicant will indicate whether the test vehicle is an auto or commercial and provide the manufacturer contact information such as the name, address, and AVT number. This information is necessary to ensure that the department has accurate records.

The second portion of the form contains various acknowledgments to which the manufacturer will be certifying. All provisions are consistent with other autonomous vehicle program forms which are specified in the Vehicle Code.

To be issued this permit, a manufacturer must certify that it will maintain an instrument of insurance, surety bond, or proof of self-insurance in the amount of five million dollars. This provision is required by Vehicle Code section 38750(c)(3).

The manufacturer must certify that the autonomous technology meets all of the following requirements:

The autonomous vehicle has a mechanism to engage and disengage the autonomous technology that is easily accessible to the operator. This provision is required by Vehicle Code section 38750(c)(1)(A).

- The autonomous vehicle has a communication link with the remote operator to provide information on the vehicle's location and status, and allow continuous two-way communication between the remote operator and any passengers if the vehicle experiences any failures that would endanger the safety of the vehicle's passengers or other road users or otherwise prevent the vehicle from functioning as intended, while operating without a driver. This provision will ensure safety by allowing the remote operator to communicate with the vehicle passengers or other road users in the event of an emergency.
- There is a process to display or communicate vehicle owner or operator information as specified in Vehicle Code Section 16025 in the event that the vehicle is involved in a collision, or if there is a need to provide that information to a law enforcement officer for any reason. This provision will ensure there are measures in place to ensure law enforcement is capable of identifying the vehicle owner for any reason.
- The autonomous vehicle's autonomous technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws. This provision is required in Vehicle Code section 38750(c)(1)(E).

The last section contains the certification that is to be signed by the manufacturer and certifies (or declares) under penalty of perjury under the laws of the State of California that the foregoing is true and correct. This certification language is consistent with all other departmental forms that require a certification and is also consistent with the requirements of Code of Civil Procedure section 2015.5(b).

§ 227.3022. Term of Permit.

Section 227.30 is renumbered to 227.22. Subdivisions (a) and (b) are amended to add "Manufacturer's Testing Permit - Driverless Vehicles." Subdivision (a) is amended to change the requirement that the permit is valid for one year, to specify that the permit is valid for a period of two years. After two years of administering the autonomous vehicle testing program, the department has determined that a yearly renewal process is an unnecessary administrative burden on manufacturers. With other controls in place during the permit term, it is only necessary to require a renewal every other year. This amendment is necessary to clarify that period of validity for both testing permits is two years.

Subdivision (b) is amended to specify that the fee for a renewal application has been changed from \$150 to \$3,600. As specified in Vehicle Code §38750 (h) this amendments is necessary to allow the department to recover all of it reasonably incurred costs.

§ 227.3224. Enrollment in Employer Pull Notice Program.

Section 227.32 is renumbered to Section 227.24, however, none of the provisions have been amended.

PROHIBITIONS AND EXCLUSIONS – ALL TEST VEHICLES

§ 227.~~34~~26. Prohibitions on Operation on Public Roads.

Section 227.34 is renumbered to Section 227.26.

The word ‘test’ has been added to clarify that this section only relates to vehicles operating in a test mode.

Subdivisions (a) and (b) are amended to remove phrases related to the operation of autonomous vehicles, due to lack of necessity.

Subdivision (d) is amended to cite Section 227.38. This citation is necessary to clarify that this provision does not apply to vehicles that do not require a driver.

Subdivision (f) is adopted to prohibit the operation of any test vehicle when members of the public a fee, or the manufacturer receives compensation for providing a ride to the members of the public. This subsection is necessary to ensure vehicles are operated only for testing purposes and not for the purpose of generating revenue from providing transportation services.

§~~227.52~~28. Vehicles Excluded from Testing and Deployment.

Section 227.52 is renumbered to Section 227.28.

Subdivision (a) is amended to add the words “or deployment” to ensure the public is aware that vehicles specified in subdivisions (a)(1) through (a)(5) shall not be deployed.

Section 227.30 identifies vehicles excluded from testing, and with this amendment, excluded from public deployment as well. The department is adopting subdivision (a)(5) to include vehicles specified in Vehicle Code section 34500 and 31309. Due to the size of the vehicles specified in Vehicle Code section 34500, and the hazardous nature of vehicles specified in Vehicle Code section 31309, public safety would be best served by prohibiting the testing and deployment of those vehicles.

APPLICATION REQUIREMENTS FOR TEST VEHICLES THAT REQUIRE A DRIVER

§ 227.~~26~~30. Manufacturer’s Testing Permit Application.

Section 227.26 is renumbered to Section 227.30. Minor non-substantive grammatical changes have been made to the section.

Subdivision (a) is amended to update the revision date of the Autonomous Vehicle Tester Program Application for Manufacturer's Testing Permit, form OL 311 from NEW 9/2013 to Rev. 2/2017. Amendments made to the form OL 311 include the following:

- The header of the form is amended to update the fee for an original application from \$150 to \$3,600 and the fee for a two-year renewal from \$150 to \$3,600. Departmental costing has indicated that the department is currently not recovering the fees associated with the review and ongoing oversight of the program.
- Section 4 (Applicant Acknowledgement) is amended to identify the current testing requirements and provide the corresponding regulation or statute that authorizes the requirement.
- Section 5 (Attachments) is added to identify the additional requirements that are to be submitted with the application.

Subdivision (a)(1) is amended to specify that the fee the processing of an application has been changed from \$150 to \$3,600. As specified in Vehicle Code §38750 (h) this amendments is necessary to allow the department to recover all of it reasonably incurred costs.

Subdivision (a)(2) is amended to add the word "additional" in circumstances where a manufacturer is requesting more vehicles and/or drivers.

§ 227.1832. Requirements for Autonomous Vehicle Test Drivers.

Section 227.18 is renumbered to Section 227.32, however, none of the provisions have been amended.

§ 227.2034. Autonomous Vehicle Test Driver Qualifications.

Section 227.20 is amended to Section 227.34, however, none of the provisions have been amended.

§ 227.2236. Autonomous Vehicle Test Driver Training Program.

Section 227.22 is amended to Section 227.36, however, none of the provisions have been amended.

REQUIREMENTS FOR VEHICLES DESIGNED TO OPERATE WITHOUT A DRIVER IN THE VEHICLE

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

Section 227.38 is adopted to establish the requirements for a permit to test on public roads autonomous vehicles that are capable of operation without the presence of a driver inside the vehicle. This section is adopted to require a manufacturer that will be testing driverless vehicles

to submit an Autonomous Vehicle Tester (AVT) Program Application for a Manufacturer's Testing Permit – Driverless Vehicles application, Form OL 318.

Autonomous Vehicle Tester (AVT) Program Application for a Manufacturer's Testing Permit – Driverless Vehicles, form OL 318

The form OL 318 is the departmental form when a manufacturer is applying to test driverless vehicles.

This document is the application a manufacturer must complete prior to testing. The department will review and verify all components of the form and, once satisfied that all requirements have been met, will issue a permit authorizing testing and authorizing vehicles to test on public roadways.

The form OL 318 is a three page document divided into five sections. Each section is necessary for the department to conduct a complete review prior to issuing a permit.

The applicant is requested to identify the application type also indicating the applicable fee for each transaction.

Original application = \$3,600 fee

Renewal application = \$3,600 fee

Modification to an existing application = \$70 fee

Adding additional permits (drivers and/or vehicles) = \$50 fee

The costing for each fee has been prepared and is available for interested public parties by contacting the department representative identified in the Notice of Proposed Regulatory Action.

Instructions are included providing an address for an applicant to remit the application to.

Section 1 – Autonomous Vehicle Tester Information

This section requests a manufacturer to provide business information such as name, address, Secretary of State Entity Number and telephone number. This section also requests information related to the address at which the company's training, testing, and employment records are kept. This is necessary for the department to validate the manufacturer's status and verify the location of information related to the testing and training of autonomous vehicle testers and other manufacturer employees.

Section 2 – Driverless Vehicles Equipped for Testing

Section 2 provides space for an applicant to identify each vehicle that will be utilized in the driverless testing process. Each manufacturer may designate up to ten vehicles on an

original application. Designating vehicles over the ten identified on the original application requires submission of an application marking the ‘Additional Permits’ option on page one of the application.

The manufacturer must identify the license plate number, state of plate issuance, vehicle identification number, year, make and model of the vehicle that is designated for driverless testing. A check is also required to indicate whether the vehicle is an auto or commercial. Any commercial indication is bound by regulations section 227.52, which excludes specified trailers, motorcycles, motor vehicles with interstate operating authority, and vehicles with a gross weight of 10,001 pounds or above. For public safety, it is critical that the department maintain current and accurate records on those vehicles participating in autonomous technology testing. If the department determines a manufacturer is allowing vehicles to operate in an unsafe manner or in a manner contrary to the Vehicle Code or other applicable regulations, the department needs a means to take quick action against the permit and the associated vehicles. By having a record of the vehicles a manufacturer designates for testing, the department will be able to quickly suspend or cancel a permit and the associated vehicles.

Section 3 – Applicant Acknowledgment

Section 3 provides specific certifications that are required by Article 3.7 of the California Code of Regulations and by Vehicle Code section 38750(c) to be provided on the application. All acknowledgements are consistent with the associated CCR section and/or Vehicle Code section that is identified immediately after each acknowledgement.

Section 4 – Attachments

Section 4 identifies the attachments that are required to be submitted with the application. The attachments identified in Section 4 also contain the authorizing CCR section or statute. This section will ensure the applicant submits a complete application package for review and will avoid unnecessary delays.

Section 5 – Certification

Section 5 contains the certification that is to be signed by the program director or authorized representative of the applicant that certifies (or declares) under penalty of perjury under the laws of the State of California that the foregoing is true and correct. This certification language is consistent with all other departmental forms that require a certification and is also consistent with the requirements of Code of Civil Procedure section 2015.5(b).

The section also clarifies that sections of the regulations that relate to the presence of a driver inside the vehicle do not apply to driverless testing.

Subdivision (a) is adopted to ensure that manufacturers have notified local authorities in the area where the driverless vehicles are being tested and coordinated the testing of those vehicles with

the local authorities. In comments the department has collected in the development of these regulations, representatives from local governments expressed concern that they were not advised prior to the initiation of testing on public streets within their jurisdiction. This subdivision is necessary to ensure that local authorities are aware of and consulted regarding testing on their public streets.

Many autonomous vehicle manufacturers had stated that they should be held responsible if their autonomous technology causes an accident.

Subdivision (b) is adopted to require a certification that manufacturers will assume liability for any at-fault collision that occurs associated with the operation of the vehicles.

Subdivision (c) is necessary to ensure that manufacturers maintain communication 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. The subdivision also ensures that vehicles that are not equipped with conventional manual controls have been approved for operation by NHTSA.

Subdivision (c)(1)(A) – (C) is adopted to require that manufacturers maintain communication with the driverless vehicles and provide a description to the department of how the driverless fleet will be monitored.

Subdivision (c)(2) is adopted to require that the driverless vehicles have a process for transferring owner information when necessary, either because the vehicle is involved in an accident or a traffic stop.

Subdivision (c)(3) is adopted to ensure that the vehicles comply with relevant vehicle safety standards, and allows a manufacturer provide evidence of an exemption approved by NHTSA.

Subdivision (d) is adopted to ensure that manufacturers provide a description of the operating domains in which an autonomous vehicles are intended to properly operate. This subdivision is necessary to ensure that the department notified of the specific conditions under which those vehicles can properly operate.

Subdivision (e) is adopted to require that manufacturers create a law enforcement interaction plan that will instruct law enforcement and other first responders how to interact with the vehicle in emergency and traffic enforcement situations. This subdivision is necessary to ensure that law enforcement and first responders have necessary information on how to interact with the vehicles in cases of emergency or traffic enforcement.

Subdivision (e)(1) specifies the minimum elements that must be included in the plan to include: how to communicate with the vehicle's remote operator and manufacturer; how to verify that the remote operator is a licensed driver; where in the vehicle law enforcement can obtain owner, registration, and proof of insurance information; how to safely remove the vehicle from the roadway; how to detect and ensure that the autonomous mode has been deactivated; how to safely interact with electric and hybrid vehicles; how law enforcement can verify the training of remote operators; and, any additional information that the manufacturer deems necessary to provide regarding hazardous or public safety risks associated with the operation of the vehicles.

Subdivisions (e)(2) requires that the plan be reviewed on a regular basis and updated as necessary if the information in the current plan is no longer current or relevant. Subdivision (e)(3) requires that the plan be submitted to the California Highway patrol within ten days of the approval of the testing application and an internet web site address be provided where the plan can be accessed by the law enforcement agencies in the vicinity where the vehicles are being tested.

Subdivision (f) is adopted to require the manufacturer to maintain a training program for its remote operators and to 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.

Subdivisions (f)(1) and (2) are adopted to require the submission of the course outline and description of the manufacturer's remote operator training program. The program must include instruction that matches the technical maturity of the automated system that is being tested and include how to respond to emergency or hazardous driving scenarios experienced by the vehicle. This subdivision is necessary to ensure public safety by requiring that the remote operators that are monitoring the vehicles obtain training on automated systems being tested.

Subdivision (g) requires the submission of a copy of the safety assessment letter that has been submitted to NHTSA. Manufacturers are allowed to exclude any confidential business information from the copy of the letter that is submitted to the department.

Subdivision (h) requires that members of the public who are not employees, contractors, or designees of a manufacturer receive notice of the type of personal information, if any, that is collected by the vehicle. This section is necessary to ensure that members of the public that choose to ride in the vehicle are aware of what personal information is being collected by the vehicle and allows them to make an informed decision before riding in the vehicle.

Subdivision (i) is adopted to specify the fee that must be submitted to the department for the processing of an application to test driverless vehicles. The fee of \$3,600 is required for an application that will include up to 10 vehicles. A manufacturer may supplement the application to add more than 10 vehicles by submitting a fee of \$50 for each additional set of 10 vehicles. This subsection is necessary to allow the department to recover the costs it reasonably incurs in processing the application. The costing of each fee has been prepared and is available for interested public parties by contacting the department representative identified in the Notice of Proposed Regulatory Action.

Subdivision (j) is adopted to allow manufacturers to submit updated information to the department on form OL 318 in the event that the contact information or the name of the entity holding the permit changes. The fee for processing the update is \$70.

ADMINISTRATIVE ACTIONS AGAINST ALL MANUFACTURER TESTING PERMITS – ALL TEST VEHICLES

§ 227.3640. Refusal, Suspension, Revocation of Testing Permit.

Section 227.36 is renumbered to Section 227.40. The section has been amended to specify the grounds for a refusal of an application for an original or a renewal of a Manufacturer's Testing Permit or a Manufacturer's Testing Permit – Driverless Vehicles.

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

Former Section 227.36 specified the grounds for the refusal of an application for a testing permit and the grounds for the suspension, or revocation of a testing permit. Section 227.42 is added to separate the grounds for a refusal from the grounds for a suspension or revocation.

Subdivision (a) is adopted to specify the basis for a suspension or revocation of testing permit for vehicles that *do* require the presence of a driver inside the vehicle to be:

- (1) The failure to maintain the required the amount of financial responsibility specified in Vehicle Code section 38750;
- (2) The violation of Vehicle Code section 38750 or the regulations in Article 3.7;
- (3) Any act or omission of the manufacturer or one of its agents, employees, contractors, or designers which creates an unreasonable risk to public safety if testing continues.

Subdivision (b) is adopted to specify the basis for a suspension or revocation of testing permit for vehicles that *do not* require the presence of a driver to be:

- (1)The failure to maintain the required the amount of financial responsibility specified in Vehicle Code section 38750;
- (2) The violation of Vehicle Code section 38750 or the regulations in Article 3.7;
- (3) Allowing vehicles to be operated outside of the operational design domain specified in the application to test;
- (4) The failure to disclose to members of the public that are passengers in the vehicle the personal information being collected by the vehicle; and,
- (5) Any act or omission of the manufacturer or one of its agents, employees, contractors, or designers which creates an unreasonable risk to public safety if testing continues.

Subdivision (c) is adopted to specify that the department will provide a 15-day written notice before suspending the permit, however, a permit will be immediately suspended when necessary to ensure the public safety on public roads.

This section is necessary because it provides clarity on the grounds for a suspension or revocation of a permit that has already been issued by the department

§ 227.3844. Demand for Hearing after Refusal or Non-Renewal.

Section 227.38 is renumbered to Section 227.44. Subdivision (a) has been amended to clarify that a manufacturer may submit a written demand for a hearing upon refusal by the department to issue either a Manufacturer's Testing Permit or a Manufacturer's Testing Permit – Driverless Vehicles, or a suspension or revocation of either permit.

§ 227.4246. Reinstatement of Testing Permit.

Section 227.42 is renumbered to Section 227.46. The section has been amended to include the reinstatement of a Manufacturer’s Testing Permit – Driverless Vehicles and to add the reinstatement of the permits after a revocation.

REPORTING OF COLLISIONS AND DISENGAGEMENTS – ALL TEST VEHICLES

§ 227.4448. Reporting Accidents-Collisions

Section 227.44 is renumbered to Section 227.48. The word “accident” has been replaced with “collision” to adopt the terminology used in Vehicle Code section 38750. The section is amended to also require the reporting of collisions by holders of a Manufacturer’s Testing Permit – Driverless Vehicles and to incorporate the February 2017 revision to the form OL 316.

Changes to the form OL 316 include the following:

- The name is revised from Report of Traffic Accident Involving an Autonomous Vehicle to Report of Traffic Collision Involving an Autonomous Vehicle.
- Space has been added to Section 2 (Accident Information) to allow the person completing the report to provide a visual indicator of where the vehicle damage occurred.
- Space has been added to Section 5 (Accident Details – Description) to allow the person completing the report to identify the weather, lighting, and roadway conditions under which the collision occurred as well as movements preceding the collision as well as other associated factors.

These new fields will allow the department to capture more information related to the conditions under which the collision occurred.

The section is also amended to specify that the accident reporting required by this section does not relieve any person from any other statutory or regulatory collision reporting requirement. This amendment is necessary to provide notice that the collision reporting in this section does not replace or substitute for any other reporting required by law or regulation.

§227.4650. Reporting Disengagement of Autonomous Mode.

Section 227.46 is amended to Section 227.50.

Subdivision (a) is amended to add clarification to the word ‘disengagement’ to include driverless cars. A driverless car is considered disengaged when the safety of the vehicle, the occupants of the vehicle or the public requires that the autonomous technology be deactivated.

Subdivision (b)(3)(A) is adopted to require a report of disengagement to indicate whether the vehicle is capable of operating without a driver. This information is necessary for the department to gather information related to the safe operation of driverless vehicles.

Subdivisions (b)(3)(A), (b)(3)(B) and (b)(3)(C) are renumbered to subdivisions (b)(3)(B), (b)(3)(C), and (b)(3)(D), respectively. Subdivisions (b)(3)(A)(iii), (b)(3)(A)(iv), (b)(3)(A)(v), and (b)(3)(A)(vi) are added to require additional detail on each reported disengagement, including the description of the facts causing the disengagements, the party that initiated the disengagement, whether the disengagement was safety-related or a planned test, and the type of incident that was preempted by the transfer of control to the test driver.

REGISTRATION AND TRANSFERRING OF TEST VEHICLES – ALL VEHICLES

§ 227.4852. Test Vehicle Registration and Certificates of Title.

Section 227.48 is renumbered to Section 227.52.

Subdivisions (a), (b), and (d) are amended to add to word “test” to clarify that this section only relates to test vehicles. Subdivision (d) is also amended to incorporate the update the revision date of the Autonomous Vehicle Testing Program Test Vehicle Permit, form OL 313, from New 9/2013 to Rev. 2/2017. The only change made to the form OL 313 is the removal of several acknowledgments from Section 3 (Acknowledgement). The department determined the acknowledgements that appeared in the 2013 version of the form were not relevant to test the operation of test vehicles and should be removed.

The text formerly adopted in subdivision (c)(1) is moved for inclusion in subdivision (c). Subdivisions (b)(3), (b)(4), (c)(2), and (c)(3) are repealed as the department has found no value in collecting this information.

§227.5054. Transfers of Interest or Title for an Autonomous Test Vehicle.

Section 227.50 is renumbered to Section 227.54 and the title is amended to clarify that the provisions relate only to autonomous test vehicles. Subdivision (a) is amended to clarify that an autonomous vehicle may also be sold or transferred to a manufacturer holding a valid Manufacturer’s Testing Permit - Driverless Vehicles.

Article 3.8 – Deployment of Autonomous Vehicles.

Article 3.8 is added to specify the requirements for an application for a permit to deploy autonomous vehicles on public roads in California.

§228.00. Purpose.

Vehicle Code §38750 requires the department to adopt regulations setting forth the requirements for the submission and approval of an application for the deployment of autonomous vehicles on public streets, as well as any additional requirements that the department determines are necessary to ensure the safe operation of such vehicles on public roads. Vehicle Code §38750 further specifies that the department shall approve a deployment application if a manufacturer has submitted all information, completed testing necessary to satisfy the department that the

autonomous vehicles are safe to operate on public roads, and complied with the requirements specified in the department's regulations.

The department recognizes that vehicles operating on public roads are subject to both federal and state jurisdiction, and that NHTSA has regulatory responsibility for setting and enforcing compliance with safety and performance standards for motor vehicles. Section 228.00 establishes that NHTSA is vested with authority to develop FMVSS, and that no motor vehicle can be sold for use on public roads unless the manufacturer certifies it meets all requirements of FMVSS.

§228.02. Definitions.

Subdivision (a) is adopted to define “autonomous technology data recorder as a mechanism that is additional to any other mechanism required by law that is installed in an autonomous vehicle to record information about the status of the vehicle's autonomous technology sensors for thirty (30) seconds prior to a collision and five (5) seconds after a collision or until the vehicle comes to a complete stop, whichever is later.

This definition is necessary because Vehicle Code section 38750 (c)(1)(G) requires manufacturers to certify that their vehicles contain such a device. The department has determined that requiring the retained data include information recorded after a collision is consistent with the requirement in Vehicle Code section 38750 (d)(3) that the regulations establish additional requirements that the department determines is necessary to ensure the safe operation of autonomous vehicles on public roads.

Subdivision (b) is adopted to define “autonomous vehicle” as a vehicle equipped with hardware and software that has the capability of performing all of the real-time functions required to operate a vehicle in on-road traffic, without the active physical control or monitoring of a natural person, whether or not the autonomous mode is engaged. The definition excludes driver assistance systems that are not capable of operating the vehicle without the active control or monitoring of person and specifies that an autonomous vehicle is a SAE level 3, 4, or 5 vehicle. This subdivision is necessary to provide notice regarding the specific vehicles that are covered by the requirements of the regulations.

Subdivision (c) is adopted to define “deployment” as the operation of an autonomous vehicle on public roads by members of the public who are not employed by or representatives of a manufacturer or other testing entity. Subdivision (c)(1) specifies that deployment also includes when a manufacturer sells, leases, or otherwise makes autonomous vehicles available for use outside of a testing program. Subdivision (c)(2) is adopted to clarify that in deployment a fee can be charged if the vehicles are used to provide transportation services. This definition is necessary to clarify the distinction between the testing of vehicles and the actual use of vehicles by the public in general.

Subdivision (d) is necessary and adopted to specify that the definitions in Article 3.7 also apply to Article 3.8.

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

Subdivision (a) is adopted to specify that the manufacturers of all types of autonomous vehicles covered by the regulations shall submit evidence of financial responsibility in the form of an instrument of insurance, or a surety bond, or proof of self-insurance. Subdivision (a)(2) identifies the Autonomous Vehicles Manufacturer Deployment Program Surety Bond, form OL 317A (Rev. 6/2014), as the designated bond form for the deployment program. The form OL 317A has been reviewed and approved by the Office of the Attorney General and approved by the Office of Administrative Law with OAL File Number 2014-0811-02FP. The bond form was adopted in Section 51.29 of Title 11, California Code of Regulations. No changes have been made to the form since the adoption.

Subdivision (a)(4) also adopts the Autonomous Vehicle Manufacturer's Deployment Program Application for Certificate of Self-Insurance, form OL 319A with a revision date of New 2/2017. The form OL 319A is designated by the department as the form required when an applicant is applying for a certificate of self-insurance to deploy autonomous vehicles. This form requires the applicant to disclose financial information that will allow the department to determine the applicant's ability to pay current and future judgments arising out of vehicle testing.

Autonomous Vehicle Manufacturer's Deployment Program Application for Certificate of Self-Insurance, form OL 319A

The first section of the form requests the applicant's identifying information including the type of ownership, name, address and telephone number. This information is necessary to allow the department to verify the applicant and the type of ownership they are operating under.

Section two requests information related to the authorized representative. Specifically, the form requests an indication of whether the representative is an owner/principal, a company employee or an agent, as well as an indication of the representative's name, title and address. This information will allow the department to ensure the records are updated to include a central contact for issues related to the certification process, as well as ensure that the representative is actually an authorized employee.

Section three contains eligibility acknowledgements that are completed through check mark boxes. The applicant is acknowledging that he or she owns more than 25 registered motor vehicles

Section four contains the Service of Process on Nonresident statement provided in Vehicle Code section 17451. This acknowledgement is necessary to ensure the applicant is aware of the service of process requirements on a nonresident who has a vehicle that is being operated within the state.

Section five requires the applicant to provide information related to the current liability coverage. This information is necessary for the department to determine what the current coverage is prior to being issued a certificate of self-insurance and prior to deployment.

The applicant must indicate whether the liability status is currently self-insured, with an indication of when the self-insured liability expires. If the applicant has held an automobile or motor vehicle liability insurance policy within the last three years or is currently being held, an indication of the insurer, policy number, and coverage limits is required. Also required is an indication of information related to the reason for insurance policy termination. Lastly, a space is provided for the applicant to explain their coverage outside of the self-insured and insurance accounts. This information will allow the department to get a full description of the applicant's current liability status with all available coverage included.

Section six requires the applicant to indicate the accident history involving their vehicles including, the total number of claims resulting from accidents, total monetary amount of these claims, total number of claims paid, total amount paid to satisfy these claims, total number of claims still pending or in litigation, and the total amount of these pending claims. The applicant is to disclose all incidents in each of the three preceding fiscal years. This information will allow the department to determine the currently liability that may drop an applicant below the statutorily required amount of financial responsibility needed for testing.

Section seven requires the applicant to disclose its claim reserve history with an indication of the reserves maintained for pending claims and an indication of savings accounts and the related balances in those accounts. This information will also allow the department to determine whether the company has reserves that will allow it to pay pending claims while ensuring adequate financial responsibility related to testing.

Section eight requires the applicant to provide the status of current judgments including whether there are judgments arising from accidents involving vehicles in which judgments are not paid and whether there are unpaid claims or lawsuits for damages arising from accidents involving the applicant's vehicles.

Section nine requires the applicant to disclose the number of vehicles operated by the applicant or his or her DBA in California and operated in other states.

Section ten requires the applicant to attach three prior years of annual financial statements certified by an independent certified public accountant. This provision is necessary for the department to determine continued financial stability of the applicant's business.

Section eleven requires the applicant to certify (or declare) under penalty of perjury that the information provided in the application is true and correct. This certification is consistent with the provisions of Code of Civil Procedure section 2015.5(b) and is consistent with all other departmental forms containing certifications.

Subdivision (b) is adopted to incorporate the surety bond requirements specified in subdivisions (a), (b), (d), and (f) of §227.02 of Article 3.7.

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

Subdivision (a) is adopted to specify that, except for the testing of autonomous vehicles, including vehicles that do not require a driver, an autonomous vehicle cannot be deployed on public roads until the department has approved the manufacturer's Application for a Permit to Deploy Autonomous Vehicles on Public Streets, form OL 321.

Application for a Permit to Deploy Autonomous Vehicles on Public Streets, form OL 321 (New 2/2017)

The form OL 321 is the departmental form designated for manufacturer's applying to deploy autonomous vehicles on public streets. The OL 321 contains five sections that solicit manufacturer information, provides acknowledgements, and identifies required attachments.

The header of the OL 321 identifies the form name and the application fee of \$3,275. Departmental costing has been conducted to ensure the application fee is sufficient to cover the costs of the program.

Section 1 – Autonomous Vehicle Manufacturer Information

Section 1 requires the manufacturer to identify its name, address, telephone number and Occupational Licensing (OL) manufacturer number.

Section 2 – Autonomous Vehicles

Section 2 requires the manufacturer to list the make and model of the autonomous vehicles that are planned to be deployed.

Section 3 – Applicant Acknowledgement

Section 3 provides sixteen acknowledgments that the manufacturer is required to initial to on the application. All acknowledgments are identified in regulations and the CCR section is added to the end of each acknowledgement.

Section 4 – Attachments

Section 4 identifies the attachments that the manufacturer is required to submit with the application. Identifying all attachments will ensure the manufacturer is able to submit a complete application package and avoid unnecessary delays in the review process.

Section 5 – Certification

Section 5 contains the certification that is to be signed by the sole owner, all partners, corporate officer, or LLC member. The applicant is required to certify (or declare) under

penalty of perjury under the laws of the State of California that the foregoing is true and correct. This certification language is consistent with all other departmental forms that require a certification and is also consistent with the requirements of Code of Civil Procedure section 2015.5(b).

Subdivision (a)(1) is adopted to require manufacturers to identify in the application the operational design domain in which their vehicles are designed to operate and to certify that the vehicles are designed to be incapable of operating in the autonomous mode outside of the disclosed operational design domain.

Subdivision (a)(2) is adopted to require manufacturers to identify commonly occurring restricted conditions under which the vehicles are incapable or unable to operate in the autonomous mode and to certify that the vehicles are designed to be incapable of operating in the autonomous mode under those conditions.

Subdivision (a)(3) is adopted to specify the fee of \$3,275 for the processing of the application. Subdivision (a)(4) is adopted to require manufacturers to submit their manufacturer's license number issued by the department pursuant to Vehicle Code section 11701. These provisions will ensure the applicant is aware of the fee and licensure requirements prior to application.

Subdivision (a)(5) is adopted to require manufacturers to certify that the autonomous vehicles are equipped with a data recorder that captures and stores, in a read only format capable of being accessed and retrieved by a commercially available tool, autonomous technology sensor data for at least 30 seconds before a collision and at least 5 seconds, or until the vehicle comes to a complete stop, whichever is later, after a collision.

Subdivision (a)(6) is adopted to require manufacturers to certify that their autonomous vehicles comply with all applicable Federal Motor Vehicle Safety Standards and the vehicle equipment requirements of the California Vehicle Code or provide evidence of an exemption that has been approved by NHTSA.

Subdivision (a)(7) is adopted to require manufacturers to certify that their autonomous technology meets Federal Motor Vehicle Safety Standards, if any exist, for the model year of the vehicles and also certify the autonomous technology does not make inoperative any Federal Motor Vehicle Safety Standard or any vehicle equipment requirements of the California Vehicle Code.

Subdivision (a)(8) is adopted to require manufacturers to certify that the autonomous technology is designed to detect and respond to roadway conditions in compliance with all provisions of the California Vehicle Code and local regulation applicable to the operation of motor vehicles, except in situations where the safety of the vehicle's occupants or other road users requires that the vehicle deviate from those legal requirements.

Subdivision (a)(8)(A) is adopted to require a certification that, when necessary, a manufacturer will at least annually or by the effective date of a change in the law, make available updates to the autonomous technology to ensure that the vehicle continues to comply with the laws

applicable to the performance of the dynamic driving task in the vehicle's operational design domain. (a)(8)(B) similarly requires updates to location and mapping information consistent with changes to the physical environment in the vehicles operational design domain. (a)(8)(C) specifies that the registered owner of the vehicle is responsible for ensuring that the vehicle is operated using the manufacturer's most recent updates.

Subdivision (a)(9) is adopted to require a certification that the vehicles have self-diagnostic capabilities that meet current industry best practices to detecting and responding to cyber-attacks.

Subdivision (a)(10) is adopted to require a certification that the manufacturer has conducted sufficient testing and validation methods such that the manufacturer is satisfied that the vehicles are safe for deployment on public roads in California.

The certifications specified in Subdivision (a) are necessary to address public safety concerns related to the deployment of the vehicles on public roads.

Subdivision (b) is adopted to establish additional certifications required of manufacturers seeking approval to deploy vehicles that do not require a driver. Those certifications include:

(1) A two-way communication link between an remote operator and the vehicle's occupants; (2) the vehicle will have the ability to display vehicle owner or operator information as required by Vehicle Code section 16025 in the event of a collision or if there is a need to provide such information to a law enforcement officer; (3) and, an approved exemption from NHTSA for vehicles that do not have conventional manual controls. These certifications are necessary to ensure that the driverless vehicles are safe for operation on public roads.

Subdivision (c) is adopted to specify the items that must be submitted with an application for a permit to deploy to include:

(c)(1) requires submission of a consumer or end user education plan covering the operational design domain of the vehicles and identifying any restrictions on the autonomous technology and an explanation of how the educational material will be provided to end users; Copies of the owner's manual or equivalent operator instruction guide that informs: of the mechanism to engage and disengage the autonomous technology that is easily accessible to the vehicle's operator, the visual indicator that indicates that the autonomous mode is engaged, and the operator's and manufacturer's responsibilities with respect to the operation of the vehicles.

(c)(2) requires submission of a description of how the vehicles will come to a complete stop when there is a failure of the autonomous technology that would endanger the safety of the vehicles occupants of other road users.

(c)(3) requires submission of a copy of the law enforcement interaction plan that meets the requirements specified in section 227.38 (e).

(c)(4) requires submission of a copy of the written information privacy disclosure required by section 228.24.

(c)(5) requires a certification that the vehicles meet the requirements of Vehicle Code section 38750 (c)(1).

(c)(6) requires a certification that the manufacturer has complied with its responsibilities to register with NHTSA and is aware of its responsibilities to comply with Federal Motor Vehicle Safety Standards.

(c)(7) specifies the manufacturer must submit test data demonstrating that the manufacturer's autonomous technology has been tested in the operational design domain in which the subject autonomous vehicles are designed to operate. This data shall be inclusive of all locations where the vehicle was tested and include information on the total number of test miles driven on public roads in autonomous mode, a description of the testing methods used to validate the performance of the vehicle, a description of the general type of safety-critical incidents encountered during testing and any collisions that resulted in property damage, injury, or fatality, and the measures taken to remediate the cause of these incidents or collisions.

These requirements are necessary to address public safety concerns related to the deployment of the vehicles on public roads.

Subdivision (d) requires the submission of a copy of the safety assessment letter that has been submitted to NHTSA. Manufacturers are allowed to exclude any confidential business information from the copy of the letter that is submitted to the department. The manufacturer's participation in the safety assessment process provides further evidence to the department that the manufacturer has engaged in a robust design, development, and testing process and is collaborating with NHTSA at the federal level on vehicle safety topics. In Frequently Asked Questions (FAQs) issued in January 2017, NHTSA advised that state government officials, as part of their oversight of testing and deployment activities within their state, could request a copy of the safety assessment letter or some other alternative document confirming that the manufacturer has followed the principles set forth in the Vehicle Performance Guidance.

Subdivision (e) is adopted to provide guidance on how the requirements in subdivisions (b), (c) and (d) are to be submitted to the department.

§228.08. Review of Application.

Subdivision (a) is adopted to specify that the department will review the applications to deploy for completeness within 30 days of receipt. If the application is incomplete, manufacturers will have up to one year to submit the materials necessary to complete the application.

Subdivision (b) is adopted to specify that, except for the 180 day period specified in Vehicle Code section 38750 (e)(2) for driverless vehicles, applications that are deemed complete will be reviewed for approval.

Subdivision (c) is adopted to specify that once an application is deemed complete, the department will notify a manufacturer within 30 days whether the application is deficient in

content details. Manufacturers will be able to submit corrections up to one year from the date of the original date of application.

Subdivision (d) is adopted to specify that pending applications that have not been approved by the department after notice of incompleteness or notice of correction will expire one year for the original date of application.

Subdivision (e) is adopted to specify that an application shall be approved if the manufacturer has submitted all of the required information and certifications and the manufacturer has conducted testing that satisfies the department that the vehicles are safe for deployment.

Subdivision (f) is adopted to specify that the approval any application to deploy driverless vehicles will not be effective until 180 days after the submission of the application.

Section 228.08 is necessary to ensure manufacturers are aware of the department's review periods, as well as the time periods for submitting additional information after an application is deemed incomplete or deficient and the effective date of approval for an application to deploy driverless vehicles.

§228.10. Amendment of Application.

Subdivision (a) is adopted to require that a manufacturer notify the department in writing within ten days if there is a change to the contact information provided in an application for a permit to deploy.

Subdivision (b) is adopted to require the submission of a new application when there is change in the hardware, software, or other significant update to the autonomous vehicle's autonomous technology that the manufacturer has determined will have a material impact on the capability or safety of that technology. Subdivision (c) prohibits the deployment of that change until the application therefor has been approved by the department.

This section is necessary to provide manufacturer's notice of the requirements for submitting changes to an approved application for a permit to deploy.

§228.12. Reporting Safety Defects.

Section 228.12 requires a manufacturer to submit to the department a copy of the report prepared in compliance with federal regulations when a manufacturer determines there is a safety related defect in their autonomous technology that creates an unreasonable risk to safety. This requirement is necessary to keep the department informed of defects that affect the safety of the vehicles that have been approved for deployment.

§228.14. Conditions Related to the Term of Permit.

Subdivision (a) is adopted to specify that a permit to deploy is valid until it is suspended or revoked by the department or it is surrendered by the manufacturer. Subdivision (b) is adopted

require that vehicles may be deployed in autonomous mode only while a permit to deploy is valid. This section is necessary to provide notice to manufacturers of the term of validity for a permit to deploy.

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

This section is necessary to specify the grounds for the refusal of an application for a permit to deploy to include: the violation of any of the provisions of Vehicle Code section 38750 (c) or any of the provisions of Article 3.8; and, for any act or omission of the manufacturer, or its agents, employees, contractors, or designees which the department determines creates a safety risk to the public.

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

Subdivision (a) allows a manufacturer to make a written demand for a hearing before the director or a representative of the director, within 60 days of a notice of a refusal to issue a permit. Subdivision (b) requires that the director or a hearing officer appointed by the director designate a time and place for the hearing. Subdivision (c) requires the director or hearing officer to make findings and render a determination within 30 days of the conclusion of the hearing. Subdivision (d) requires that the hearing be conducted pursuant to the provisions of the Administrative Procedures Act.

This section is necessary to inform manufacturers that there are administrative remedies when a permit to deploy has been refused. The hearing process is consistent with the process for other hearings conducted by the department's occupational licensing programs.

§228.20. Suspension or Revocation of a Permit.

Subdivision (a) requires the department to provide 30 day written notice before suspending or revoking a permit to deploy and specifies the grounds for such actions as:

- (1) The failure to maintain financial responsibility as required by Vehicle Code section 38750 (c)(3) and section 228.04;
- (2) The submission of misleading or incorrect information in the application for a permit to deploy;
- (3) A manufacturer's failure to report a change in information as required by section 228.10; and,
- (4) Any failure of a manufacturer to comply with the provisions of Article 3.8.

Subdivision (b) is adopted to specify the basis for an immediate suspension of a permit to deploy to be:

- (1) The suspension or revocation of a manufacturer's vehicle manufacturer, distributor, or remanufacturer license;

(2) The deployment of vehicles equipped with autonomous functions that were not disclosed in the application for a permit to deploy;

(3) The misrepresentation of any information related to the safety of the autonomous technology;

(4) If the autonomous makes inoperative any federally required motor vehicle safety systems;

(5) If the vehicles are subject to an open recall related to the safe operation of the autonomous technology; and,

(6) If the department determines based on the performance of the vehicles, they are not safe for public operation.

Subdivision (c) is adopted to prohibit further deployments of autonomous vehicles by the manufacturer until the department has verified that appropriate action has been taken to correct the deficiencies that led to the suspension or revocation.

Subdivision (d) is adopted to require a manufacturer to provide notice to vehicle owners that the permit to deploy has been suspended or revoked and the reason why the department took that action.

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

Subdivision (a) is adopted to allow a manufacturer to request in writing a hearing on the suspension or revocation of the permit to deploy. (a)(1) requires the request to be made within ten (10) days of receipt of the order of suspension or revocation if the manufacturer wants a hearing before the effective date of the suspension or revocation. (a)(2) requires the department to hold the hearing before the effective date if a request is submitted pursuant to (a)(1). (a)(3) specifies that the only issues in a hearing shall be those specified as the grounds for the action. (a)(4) requires the director or hearing officer to make findings and render a determination that takes effect as stated in the order of suspension or revocation. (a)(5) provides that a request for hearing does not stay the order of suspension or revocation, but if a hearing is requested and the department does not conduct the hearing and render a decision before the effective date of the action, the department shall stay the suspension or revocation pending the issuance of a determination.

Subdivision (b) is adopted to specify the procedures for an immediate suspension or revocation of a suspension. A hearing may be requested within five (5) days of receipt of the order and the department will hold the hearing within twenty-one (21) days of the request for hearing. The request for hearing does not stay the effective date of the suspension or revocation.

Subdivision (b)(1) specifies that in a suspension action the manufacturer must show cause why the suspension should not be continued. Following the hearing the department may terminate the suspension or continue the suspension in effect.

Subdivision (b)(2) specifies that in a revocation action the manufacturer shall show cause why the permit should not be revoked. Following the hearing the department may sustain the revocation or determine that the permit should be suspended instead of revoked.

Subdivision (c) requires that hearings be conducted pursuant to the provisions of the Administrative Procedures Act.

This section is necessary to inform manufacturers that there are administrative remedies when a permit to deploy has been suspended or revoked by the department. The hearing process is consistent with the process for other hearings conducted by the department's occupational licensing programs and motor carrier permit programs.

§228.24. Information Privacy.

Subdivisions (a)(1) and (a)(2) are adopted to require manufacturers to either; disclose in writing to the driver of an autonomous vehicle or the occupants of vehicles that do not require a driver the information collected by the autonomous technology that is not necessary for the safe operation of the vehicle, or anonymize the information that is not necessary for the safe operation of the vehicle.

Subdivision (b) specifies that for information that is not anonymized the manufacturer must obtain written approval to collect information that is not necessary for the safe operation of the vehicle.

Subdivision (c) prohibits the manufacturers from denying the use of the autonomous vehicle to anyone that does not consent to the collection of non-anonymized information.

This section is necessary to establish data privacy protections for people that use autonomous vehicles.

§228.26. Registration Autonomous Vehicles.

Subdivision (a) requires that the face of a vehicle registration card identify a vehicle as autonomous in addition to: the date of issuance; name and residence, business or mailing address of the registered or legal owner; the registration number assigned to the vehicle; and, a description of the vehicle.

Subdivision (b) requires that the certificate of ownership also identify that as autonomous.

This section is necessary to ensure that the registration and ownership documents for an autonomous vehicle adequately identify the vehicles as autonomous.

§228. 28. Driver and Manufacturer Responsibilities.

Subdivision (a) requires that the driver of any level 3 autonomous vehicle must possess the proper class of license. Subdivision (a)(1) specifies that the driver is responsible for the safe

operation of the vehicle any time the driver is required to take control or the vehicle is operating outside the operational design domain approved by the department. Subdivision (a)(2) specifies that the manufacturer is responsible for the safe operation of the vehicle when it is operating in autonomous mode within the approved operation design domain.

Subdivision (b) specifies that the manufacturer of any level 4 or level 5 vehicle is responsible for the safe operation of the vehicle at all times the vehicle is operating in the operational design domain approved by the department.

This section is necessary to clarify the responsibilities of drivers and manufactures for the safe operation of vehicles, including compliance with traffic laws, when the vehicles are operating either under the control of the driver, or the control of the autonomous technology.

§228.30. Statements About Autonomous Technology.

Subdivision (a) prohibits a manufacturer holding a vehicle manufacturer license and a deployment permit, or its agents, from advertising for the sale or lease of a vehicle that a vehicle is autonomous if the vehicle does not meet the definition of an autonomous vehicle as specific in Vehicle Code Section 38750 and section 227.02.

Subdivision (b) specifies that the use of terms to describe vehicle performance that are known, or by the exercise of reasonable care should be known, will cause a reasonably prudent person to believe a vehicle is autonomous constitute an advertisement for the purposed of this section and the vehicle manufacturer license discipline provisions of Vehicle Code section 11713.

This section is necessary to ensure public safety by requiring that the public is given accurate information in advertisements that speak to the capabilities of vehicles.

DEPARTMENTAL DETERMINATIONS

- **Technical, Theoretical and/or Empirical Studies, Reports or Documents:**
The department relied on the following documents in preparing this proposed regulatory action:
 - Society of Automotive Engineers' *Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems*.
 - Federal Automated Vehicles Policy, *Accelerating the Next Revolution in Roadway Safety*, September 2016, National Highway Traffic Safety Administration.
- **Reasonable Alternatives That Would Lessen Any Adverse Impact on Small Business:** No alternatives were considered or presented that would lessen any adverse impact on small business.
- **Evidence Supporting Determination of No Significant Adverse Economic Impact on Business:** This regulation will impact automobile manufacturers and companies developing systems that allow automated operation of motor vehicles without the active

physical control of a driver. The department has no evidence that the regulation will have an adverse impact on business and anticipates that these regulations will have a positive economic impact on California businesses as more automobile manufacturers and researchers enter the state to develop and test automated automobile technology that may be incorporated into all automobiles in the future.

ECONOMIC AND FISCAL IMPACT DETERMINATIONS

- Cost Or Savings To Any State Agency: None.
- Other Non-Discretionary Cost or Savings to Local Agencies: None.
- Costs or Savings in Federal Funding to the State: None.
- Cost Impact on Representative Private Persons or Businesses: Other than the costs associated with securing the evidence of financial responsibility as required by Vehicle Code section 38750, the costs of applying for a permit to test or deploy vehicles as specified in the regulations, and the costs for training drivers to safely operate the test vehicles, the department is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.
- Effect on Housing Costs: None.
- Local Agency/School District Mandates: The proposed regulatory action will not impose a mandate on local agencies or school districts, or a mandate that requires reimbursement pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code.
- Small Business Impact: This proposed action may impact small business.

Economic Impact Assessment (Government Code section 11346.3)

The department has made the following determinations related to this proposed regulatory action:

1) Creation or Elimination of Jobs Within the State of California

This proposed regulation will neither create nor eliminate jobs within the State of California. These regulations apply to the testing of autonomous vehicles by drivers authorized by the autonomous technology manufacturers and deployment to the general public. As most of these testers are already affiliated with the manufacturers, there will be no job creation or elimination.

2) Creation or Elimination of Existing Business Within the State of California

The department does not anticipate that the proposed regulation will either create new business or eliminate existing business within the State of California. The autonomous technology manufacturers are established businesses.

3) Expansion of Business Currently Doing Business Within the State of California

The autonomous technology manufacturers are established businesses and this action is unlikely to expand business currently doing business within the State of California.

4) Benefits of Regulation to the Health and Welfare of California Residents, Worker Safety and the State's Environment

The proposed regulatory action is not likely to impact the health and worker safety or the environment. However, the proposed regulation intends to provide assurance of safety to the general public when technology manufacturers and researchers are developing and testing automated vehicle driving systems on public roadways.