

Statement of Reasons for the Modified Regulatory Text

Title 13, Division 1, Chapter 1

Article 3.7. Testing of Autonomous Vehicles

The Department of Motor Vehicles (department) proposes to amend Sections in Article 3.7 and Sections 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 April 25, 2025. The comment period ended on June 9, 2025, with the department having received many written comments. The department also held a public hearing on June 10, 2025, in San Francisco. The public hearing was attended by 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.

No additional amendments are being made to Section 227.00.

§ 227.02. Definitions.

Subdivision (c) is amended to provide clarity to the direct traveling routes between necessary servicing locales.

Subdivision (d) is amended to remove reference to “registered owner or lessee,” replacing with the term “end user” in the definition of automated driving system service. Based on stakeholder comments, the department is adding the term end user to define the person who owns or leases an autonomous vehicle and is not the manufacturer of the automated driving system. The definition allows for a clear distinction in the roles and responsibilities associated with regulatory requirements. The department supports these comments and is making the recommended change.

Subdivision (h) is amended to provide clarity to the regulated public on specific types of examples of relevant information that the department may rely on to determine whether a vehicle is classified as an autonomous vehicle and therefore subject to statutory and regulatory requirements for autonomous vehicles. Examples include, but are not limited to, demonstrations of the autonomous technology provided by the manufacturer, reports from other regulatory agencies, and media sources.

The department received stakeholder comments addressing concerns that the proposed regulatory draft language is inconsistent with the California Vehicle Code and creates requirements that go beyond emergency geofencing message requirements set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (Chapter 682; Statutes of 2024). The department supports these comments and is making the recommended change. Subdivision (j) is amended to align with the requirements in section 38751 (d)(1) to indicate that “a manufacturer must issue direction to its fleet of autonomous vehicles to leave or avoid for the initial duration provided by the emergency response official or for an extended duration, when specified by the emergency response official.”

Subdivision (o) is adopted to add the term “direct route” to provide clarity and enforceability regarding the routing of autonomous heavy-duty commercial motor vehicles operating under a departmental permit. This definition establishes a clear standard for acceptable travel paths—those that are efficient, geographically logical, and limited to essential stops for regulatory compliance, safety, or servicing. It supports the broader regulatory requirement that prohibits these vehicles from operating on local roads with posted speed limits of 25 miles per hour or less, except when accessing their operational design domain (ODD), by ensuring that vehicle routes avoid unnecessary detours through sensitive areas such as residential neighborhoods, school zones, and urban cores. The definition also enables the department to effectively evaluate submissions from manufacturers and affiliates as part of the permit process, thereby enhancing oversight, promoting public safety, and ensuring consistent compliance with operational limitations.

Subdivision (o) is renumbered to subdivision (p).

Subdivision (p) is renumbered to subdivision (q).

Subdivision (q) is renumbered to subdivision (r).

Subdivision (r) is renumbered to subdivision (s).

Subdivision (s) is renumbered to subdivision (t) and is amended to provide additional clarity that the manufacturer may submit the application form electronically via the department's web portal.

Subdivision (t) is renumbered to subdivision (u) and is amended to provide additional clarity that the manufacturer may submit the application form electronically via the department's web portal.

Subdivisions (v) through (x), (mm), and (nn) are adopted to rename the drivered and driverless testing permit applications according to permitting lifecycle (i.e., original, renewal, modification). This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle. All references to the original, renewal, or modified Drivered and Driverless Testing Permit Applications throughout Article 3.7 are replaced by the renamed testing permit applications. The department supports these comments and is making the recommended change. In addition, subdivisions (v), (w), and (x) provide additional clarity that the manufacturer may submit the application form electronically via the department's web portal.

Subdivision (u) is renumbered to subdivision (y).

Subdivision (v) is renumbered to subdivision (z).

Subdivision (aa) is adopted to define the term "dynamic driving task performance relevant system failure," which is currently defined in the proposed regulatory draft of Article 3.8 in section 228.02 (e). The department received comments that support reporting dynamic driving task performance relevant system failures in lieu of disengagements. Stakeholders advocated for this to replace disengagement reporting to avoid potentially burdensome or resource intensive overreporting of routine, non-safety deactivations, thereby allowing the department to capture safety-relevant and safety-critical incidents and more meaningful operational safety risks. The department supports replacing disengagement reporting in favor of enhanced visibility, oversight, and enforcement of safety-relevant or safety-critical situations whereby a test driver took over performance of the dynamic driving task or performed the dynamic driving task fallback in response to a dynamic driving task performance relevant system failure.

Subdivision (w) is renumbered to subdivision (bb) and is amended to align the definition of "emergency" with the statutory definition set forth in the California Vehicle Code section 38751 (a)(3). The department received stakeholder comments that the proposed regulatory definition of "emergency" is inconsistent with the statutory definition of the term. The department supports these comments and is making the recommended change.

Subdivision (x) is renumbered to subdivision (cc) and is amended to align the definition of "emergency geofencing message" with the statutory definition set forth in the California Vehicle Code section 38751 (a)(1). The department received stakeholder comments addressing concerns that the proposed

regulatory language is inconsistent with the California Vehicle Code and creates requirements that go beyond emergency geofencing message requirements set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (Chapter 682; Statutes of 2024). The department supports these comments and is making the recommended change.

Subdivision (y) is renumbered to subdivision (dd).

Subdivision (ee) is adopted to define the term “end user,” which is referenced in the currently adopted deployment regulations, to distinguish manufacturers’ responsibilities from end users of autonomous technology (e.g., owners, lessees, consumers, passengers, etc.). Based on stakeholder comments, the department is adding the term end user to define the person who owns or leases an autonomous vehicle and is not the manufacturer of the automated driving system. The definition allows for a clear distinction in the roles and responsibilities associated with regulatory requirements. The department supports these comments and is making the recommended change.

Subdivision (z) is renumbered to subdivision (ff).

Subdivision (aa) is renumbered to subdivision (gg).

Subdivision (bb) is renumbered to subdivision (hh).

Subdivision (ii) is adopted to define the term “low-speed autonomous vehicle” and provide clarity and regulatory consistency for autonomous vehicles that are specifically designed to operate at lower speeds. These vehicles often serve specialized functions such as short-distance transportation within defined environments (e.g., campuses, business parks, or urban centers). By clearly defining “low-speed autonomous vehicle,” the department ensures that such vehicles are appropriately categorized and regulated according to their operational capabilities and safety considerations. This distinction also supports the development and deployment of innovative mobility solutions while maintaining public safety.

Subdivision (cc) is renumbered to subdivision (iii) and is amended to revise the proposed regulatory draft language to leverage the currently adopted definition of the term “manufacturer” in Article 3.7. The department received comments from the autonomous vehicle industry on defining who is responsible for compliance to manufacturer requirements. This amendment is based on stakeholder comments and aligns with the statutory definition of manufacturer set forth in the California Vehicle Code section 38750 (a)(5). The department supports these comments and is making the recommended change.

Subdivision (dd) is renumbered to subdivision (kk).

Subdivision (ee) is renumbered to subdivision (ll).

Subdivision (ff) is renumbered to subdivision (mm).

Subdivision (mm) is renumbered to subdivision (nn).

Subdivision (gg) is renumbered to subdivision (pp).

Subdivision (hh) is renumbered to subdivision (qq) and is amended to remove reference to “registered owner or lessee,” replacing with the term “end user” in the definition of personal information. Based on stakeholder comments, the department is adding the term end user to define the person who owns or leases an autonomous vehicle and is not the manufacturer of the automated driving system. The definition allows for a clear distinction in the roles and responsibilities associated with regulatory requirements. The department supports these comments and is making the recommended change.

Subdivision (ii) is renumbered to subdivision (rr).

Subdivision (jj) is renumbered to subdivision (ss).

Subdivision (kk) is renumbered to subdivision (tt) and is amended to align the definition of remote assistant with the Society of Automotive Engineers (SAE) International's Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (APR2021). The department received comments from the autonomous vehicle industry that the proposed requirements do not align with industry standards for remote assistant roles and responsibilities. The department supports these comments and is making the recommended change.

Subdivision (ll) is renumbered to subdivision (uu) and is amended to align the definition of remote driver with Society of Automotive Engineers (SAE) International's Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (APR2021). The department received comments from the autonomous vehicle industry that the proposed requirements do not align with industry standards for remote driver roles and responsibilities. The department supports these comments and is making the recommended change.

Subdivision (uu) is renumbered to subdivision (vv).

Subdivision (nn) is renumbered to subdivision (ww).

Subdivision (oo) is renumbered to subdivision (xx) and is amended in response to stakeholder comments. The revision clarifies both the definition of a safety case and the requirement that manufacturers must provide a comprehensive description of a completed safety case. This description must include the core safety information elements outlined in Article 3.7. These core safety information elements reflect industry best practices and serve as a framework for evaluating the manufacturer's overall approach to autonomous vehicle safety. The amendment provides enhanced clarity to the regulated public regarding the contents of a safety case submission to ensure the department receives safety-relevant information that supports application review and permitting. The department supports these comments and is making the recommended change.

Subdivision (pp) is renumbered to subdivision (yy).

Subdivision (qq) is renumbered to subdivision (zz) and is amended to specify that vehicle immobilizations apply exclusively to autonomous vehicles operating in a driverless configuration. The amended language also expands the definition of "manual intervention" to include situations in which a driverless vehicle with manual driving controls is driven by a human driver or a vehicle with no manual driving controls is supported by a remote driver. This addresses stakeholder concerns by providing regulatory clarity on what manual intervention involves. The department supports these comments and is making the recommended change.

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

Non-substantive changes to subdivision (d).

§ 227.06. Evidence of Financial Responsibility.

No additional amendments are being made to Section 227.06.

§ 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.

Non-substantive changes to subdivisions (a) and (e).

§ 227.18. Manufacturer's Testing Permit and Manufacturer's Testing Permit -- Driverless Vehicles.

Non-substantive changes to subdivision (a).

Subdivision (c) is amended to limit the driverless testing and deployment of autonomous heavy-duty commercial motor vehicles—except for medium-duty vehicles used to transport passengers, as described in section 227.26(a)(6)(B)—on local roads with a posted speed limit of 25 miles per hour or less. These vehicles may only operate on such roads if the roads fall within a direct route between hubs, motor carrier and shipper facilities, distribution centers, fueling or charging stations, maintenance facilities or terminals as defined in California Vehicle Code 34515, or other non-residential facilities, and if the roads permit travel by that vehicle weight class.

The department appreciates receiving stakeholder comments regarding the department's proposed restriction of autonomous heavy-duty commercial motor vehicle operation on roads with a posted speed limits of 25 miles per hour or less. The department maintains this operational design domain restriction due to public safety considerations associated with the complexity of certain roadway environments, such as residential neighborhoods, school zones, and urban cores, while amending the allowable exceptions to clarify that routes need not include freeways and removing the requirement for manufacturers to submit all specific routes on which they will operate, in response to feasibility concerns raised by commenters. By referencing a new definition of "direct route," this amendment establishes a clear standard for acceptable routes for driverless testing and deployment of autonomous heavy-duty commercial motor vehicles—those that are the most linear, geographically logical, and efficient, while preserving safety and regulatory compliance.

Subdivision (c)(1) is removed due to widespread stakeholder comments opposing the department's proposed requirement for manufacturers to provide all specific routes and local roads within the operational design domain as this would be burdensome for manufacturers to maintain, especially as operations scale. The department supports these comments and is making the recommended change. The department will continue its statutory role to evaluate the automated driving system's ability to safely operate within the intended operational design domain, including routes that traverse high density

areas, through reviewing the manufacturer's completed comprehensive safety case and operational data submitted at the time of application and on a monthly or quarterly cadence as part of expanded data reporting requirements, and leveraging post-permitting controls, such as the Request for Information process, which will give the department authority to request specific information on incidents involving the operation of autonomous vehicles on public roads. These measures will provide the department with safety-relevant data that will enhance the department's regulatory oversight on safety performance, amplify its visibility on roadway incidents that occur during testing or deployment, as well as establish mechanisms for ongoing engagement with manufacturers throughout the permit lifecycle.

Subdivision (c)(2) is renumbered to subdivision (c)(1) and is amended to specify that the regulation exclusively applies to manufacturers of autonomous heavy-duty commercial motor vehicles. This provides regulatory clarity and addresses light-duty autonomous vehicle manufacturers' concerns to eliminate ambiguity. The department supports these comments and is making the recommended change.

§ 227.20. Term of Permit.

Subdivisions (a) and (b) are amended to maintain the existing two-year renewal cycle for testing permits. The department is amending this regulation based on stakeholder feedback to revert the duration of testing permits to a biennial renewal cycle. Stakeholders provided comments that expanded data reporting and permitting requirements and the ability for the department to request specific incident information collectively equip the department with safety-critical data that will enhance the department's regulatory oversight on safety performance and amplify its visibility on roadway incidents as well as establish mechanisms for ongoing engagement with manufacturers throughout the permit lifecycle. The department supports these comments and is making the recommended change.

Subdivision (c) is adopted to clarify that the two-year validity period for a Driverless Testing Permit shall restart for a successive two-year period upon approval of a Driverless Testing Operational Parameters Modification Application. This amendment responds to feedback from the autonomous vehicle industry, aiming to resolve permitting ambiguities by clearly delineating the distinct requirements and certifications associated with each stage of the permitting lifecycle. Additionally, the expanded reporting obligations during the permit period, the department's authority to request specific information about incidents on public roads, and the operational testing data requirements tied to

the modification application collectively provide the department with critical data to assess the safe operation of autonomous vehicles. These measures provide mechanisms for continued engagement with manufacturers throughout the permit lifecycle. The department supports these comments and is making the recommended change.

§ 227.22. Enrollment in Employer Pull Notice Program.

No additional amendments are being made to Section 227.22.

§ 227.24. Prohibitions on Operation on Public Roads.

Non-substantive changes to subdivision (e).

§ 227.26. Vehicles Excluded from Testing and Deployment.

Subdivision (a)(3) is amended in response to stakeholder comments to remove reference to the California Vehicle Code section 34500 (g), replacing with section 27903. This amendment clarifies that the prohibition applies only to vehicles transporting hazardous materials requiring a vehicle placard pursuant to federal hazmat regulations set forth in 49 Code of Federal Regulations, Part 100. This avoids unintentionally prohibiting transport of routine goods such as household cleaning materials and other goods that do not require a placard.

Subdivision (a)(6) is amended to specify that autonomous vehicles with a gross vehicle weight rating of 10,001 pounds or more shall be prohibited from being used to transport passengers during testing or deployment, except under certain circumstances.

Subdivision (a)(6)(A) is adopted to allow autonomous heavy-duty commercial motor vehicles designed to transport property to carry third party validators, business partners, and manufacturer personnel as passengers for testing and demonstration purposes. The department received comments from heavy-duty industry stakeholders that the proposed language in the draft regulations unintentionally impacts and restricts manufacturers of autonomous heavy duty commercial motor vehicles that conduct freight operations and have in-vehicle passengers that are designees of the manufacturers and not members of the public. The department accepts this comment to provide a regulatory pathway allowing manufacturers of autonomous heavy-duty commercial motor vehicles that transport freight to carry a select group of individuals for testing and demonstration purposes.

Subdivision (a)(6)(B) is adopted to allow vehicles with a gross vehicle weight rating of less than 14,001 pounds that meet the statutory definition of a bus set forth in the California Vehicle Code section 233 (b) and are designed to

transport no more than 15 passengers, which includes the attendant, exemption to conduct passenger service when operated by or in partnership with a public entity as defined in the Government Code 811.2 or independent institutions of higher education as defined in the California Education Code 66010 (b). A manufacturer operating under this exemption shall be required to provide to the department any complete and unredacted Safety Compliance Report/Terminal Record Update (form CHP 343), Driver/Vehicle Examination Report (form CHP 407F), Notice to Carrier (form CHP 345), if applicable, and all attachments issued by the California Highway Patrol (CHP) within 30 business days of receipt. This provides clarity to the regulated industry regarding which forms must be submitted to the department to support the evaluation of autonomous vehicle safety on public roads. The exemption for medium-duty passenger service allows autonomous vehicle manufacturers to partner with public entities and private universities to explore expanded mobility options. The medium-duty exemption ensures that these vehicles remain subject to annual inspection by the CHP. During these inspections, CHP may identify violations related to vehicle maintenance or driver records. If a passenger reports feeling unsafe due to the vehicle's mechanical condition, CHP also has the authority to conduct an inspection at any time in response to the complaint. The regulation requires manufacturers to submit any terminal inspection report to the department. The department may then exercise its Request for Information or restriction, suspension, or revocation authority in response to any vehicle maintenance or driver record issues identified by the CHP. Additionally, the department has amended its enforcement authority to include any directive, restriction, or prohibition issued by the Federal Transit Administration (FTA) to a transit agency as grounds for restriction, suspension, or revocation. The department received comments from local transportation agencies and manufacturers of autonomous shuttles recommending a targeted exemption that allows autonomous vehicles with a gross vehicle weight rating below 14,001 pounds to be used for passenger service when operated by, or in partnership with, public entities such as transit agencies, local governments, universities, and airports to provide a pathway for accessible shared mobility solutions beyond the single-passenger transit use case and foster continued innovation of emerging technologies. They stress that autonomous vehicles must complement—not replace—public transit and should support first-mile/last-mile connections and fill service gaps. These stakeholder comments contend that low-speed medium-duty autonomous vehicles pose lower safety risks and should not fall within the same restrictions as larger, higher-speed autonomous vehicles. Given the unique safety considerations, the department will revisit regulations concerning autonomous heavy-duty passenger vehicles with a gross vehicle

weight rating over 14,001 pounds and designed to carry more than 15 passengers, in a future rulemaking package.

§ 227.28. Manufacturer's Testing Permit Application.

Non-substantive changes to subdivision (a).

Subdivision (a)(1) is amended to specify Original Driverless Testing Permit Application. This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle.

Non-substantive changes to subdivision (c).

Subdivision (d) is amended to require manufacturers submitting an original, renewal or modification, that is intended to implement changes as defined in section 227.42, subsections (o) (1) through (o) (7), of a Driverless Testing Permit Application, form OL 318 (Rev. 2/2025), to submit a comprehensive description of a completed safety case, supported by core safety information elements documentation that provides sufficient evidence demonstrating compliance with functional safety, safety of the intended function, Artificial Intelligence safety, cybersecurity, and operational safety. These core safety information elements reflect industry best practices established by the Automated Vehicle Safety Consortium and serve as a framework for evaluating a manufacturer's overall approach to autonomous vehicle safety. The amendment provides regulatory clarity regarding the contents of a safety case that the department will use to evaluate and assess autonomous vehicle safety. In addition, subdivision (d) is amended to specify that the department may consult with third-party technical experts to review a manufacturer's safety case. This aligns with the California Vehicle Code section 38750 (d)(2), which allows the department to consult with any entity that has expertise in automotive technology, automotive safety, and autonomous system design. Subdivision (d) also removes the proposed requirement for manufacturers to submit a modified version of the safety case, including a summary of the modifications made, within 10 business days. The department received public comments that it is unclear what is considered a "material" change to a safety case and submitting all changes could impose burden to industry, given the technical evidence that would need to be provided to substantiate each safety claim. Description of the completed safety case shall be provided during the application process or when requested by the department through a Request for Information. The department supports these comments and is making the recommended change.

Subdivisions (e), (e)(1), (e)(2), and (e)(3), are removed as commercial motor vehicles that operate on public roads in California are already subject to existing state law, which includes inspections conducted by the California Highway Patrol.

§ 227.30. Review of Application.

Non-substantive changes to subdivision (a).

§ 227.32. Requirements for Autonomous Vehicle Test Drivers.

Non-substantive grammatical changes to subdivisions (a) and (d).

§ 227.34. Qualifications for Autonomous Vehicle Test Driver.

Non-substantive changes to subdivision (a).

Numbering for subdivision (a)(1) is adopted.

Subdivisions (b) and (b)(1) are amended to remove references to remote driver. Permitting requirements for remote drivers are specified in Section 227.38.

Subdivision (b)(5)(D) is amended to specify that the regulation applies to manufacturers of autonomous heavy duty commercial motor vehicles. This provides regulatory clarity and addresses light-duty autonomous vehicle manufacturers' concerns to eliminate any ambiguity and provide consistency within the subdivision.

§ 227.36. Autonomous Vehicle Test Driver Training Program.

Numbering for subdivision (a)(1) is adopted.

§ 227.38. Requirements, Qualifications, and Training for Remote Drivers.

Subdivision (a) is amended to remove the proposed requirement for a remote assistant to be issued a permit. Therefore, form OL 323 (Rev. 8/2025), is renamed from "Autonomous Vehicle Remote Assistant / Remote Driver Permit" to "Remote Driver Permit." The department received comments that since the remote assistant is not responsible for performing the dynamic driving task or dynamic driving task fallback, which falls within test driver and remote driver obligations, this role does not require individual permitting which is intended to amplify the department's oversight on the driving record. The department accepts the recommendation and has made the change to the text.

Subdivision (b)(5) is amended to align remote driver functional requirements with the California Vehicle Code section 38751 (b)(1)(C). The department received stakeholder comments addressing concerns that the proposed language is

inconsistent with statute and creates requirements that go beyond remote operator statutory requirements adopted by the passage of Assembly Bill 1777 (2024), thereby creating confusion on remote driver functions. Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements for remote drivers to allow an emergency response official to move the autonomous vehicle. The department accepts these recommendations, and the text changes have been made.

Subdivision (c)(4) is amended to provide additional clarity on the records manufacturers must maintain associated with a remote driver's permit. Remote drivers are distinct from Remote Assistants in that they are capable of performing part or all of the vehicle's dynamic driving task. Maintaining these records is critical for traffic safety and ensures the department has access to the most current information about these personnel. This supports the department's role in oversight and regulation of safe operation of autonomous vehicles on public roads.

Subdivision (d)(5) is amended to specify that a remote driver holds a valid driver's license and applicable endorsements for the type of vehicle being operated. In addition to a driver license of the appropriate class, drivers of certain vehicle types or who transport passengers or specific cargo are also required to have a driver license endorsement that allows them to do so. The department is responsible for monitoring the driver record, which includes holding certain endorsements or certificates. The department notifies employers of additions to the driver record and takes appropriate action to protect the public. When the department refuses, suspends, or revokes a certificate or an endorsement, the driver must reapply to the department. For any mandatory action (e.g., Driving Under the Influence, negligent operator), the driver may request a hearing. This change is being made to clarify that a remote driver must have the proper driver's license and any applicable endorsements for the type of vehicle being operated.

Subdivisions (d)(5)(A) through (d)(5)(C) are adopted to require that a remote driver's driver license record includes none of the disqualifying traffic violations. Remote drivers are capable of performing part or all of the vehicle's dynamic driving task and must have driver record requirements similar to autonomous test drivers. This allows the department to continue maintaining safety oversight on remote personnel to ensure the safe operation of autonomous vehicles on public roads and aligns permitting requirements with those established for test drivers, who similarly perform part of the dynamic driving task or dynamic driving task fallback.

§ 227.40. Requirements, Qualifications, and Training for Remote Assistants.

Subdivision (a) is removed to remove the proposed requirement for a remote assistant to be issued a permit. The department received comments that since the remote assistant is not responsible for performing the dynamic driving task or dynamic driving task fallback, which falls within test driver and remote driver obligations, and that this role does not require individual permitting which is intended to amplify the department's oversight on the driving record. Instead, remote assistants provide guidance while the autonomous vehicle retains continuous control of the driving function. Additionally, the department recognizes that individually permitting these personnel—who may frequently enter or leave a manufacturer's employment—places an unnecessary burden on the regulated industry. The department maintains robust Request for Information procedures and can inquire into specific details related to remote assistant operations as needed. The department supports this comment and is making the recommended change.

Subdivision (b) is renumbered to subdivision (a).

Subdivision (a)(4) is amended to align remote assistant functional requirements with the California Vehicle Code section 38751 (b)(1)(C). The department received stakeholder comments addressing concerns that the proposed language is inconsistent with statute and creates requirements that go beyond remote operator statutory requirements adopted by the passage of Assembly Bill 1777 (2024), thereby creating confusion on remote assistant functions. Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements for remote assistants to allow an emergency response official to move the autonomous vehicle. The department accepts these comments, and the text has been amended.

Subdivision (c) is renumbered to subdivision (b).

Subdivision (b)(4) is amended to specify that manufacturers shall maintain records associated with a remote assistant's driver's license. This specifies the types of records that manufacturers shall maintain to ensure that only qualified individuals are permitted to participate in the testing program as a remote assistant.

Subdivision (d) is renumbered to subdivision (c).

§227.42. Manufacturer's Permit to Test Autonomous Vehicles That Do Not Require a Driver in the Driver's Seat.

All references to the original, renewal, or modified Driverless Testing Permit Application in Section 227.42 are replaced by the renamed testing permit applications. This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle.

Non-substantive changes to subdivisions (a), (a)(1), (a)(1)(A), and (a)(2)(A).

Subdivisions (a)(2) and (b)(2) are amended to clarify reporting requirements outlined in subdivision (d) for manufacturers of autonomous heavy-duty commercial motor vehicles that opt to meet a portion of mileage-based permitting requirements by submitting operational data from testing conducted outside of California in an operational design domain that is the same or comparable to that which is intended for testing with a Driverless Testing Permit. In addition, subdivision (b)(2) is amended to clarify that the testing must be conducted under a Drivered Testing Permit, not a Driverless Testing Permit. A manufacturer applying to expand operations under a Driverless Testing Permit would not be authorized to test within the specified operational design domain until receiving approval. The manufacturer must first demonstrate testing with a safety driver. This clarification corrects an error in the initial draft of the express terms and aligns with the original intent described in the Initial Statement of Reasons.

Subdivision (b) is amended to specify that this regulation applies to modifications, as described in Section 227.42, subdivision (o)(1) through (o)(7), of a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Non-substantive change to subdivision (b).

Subdivision (c) is amended to specify that this regulation applies to original or modifications, as described in Section 227.42, subdivision (o)(1) through (o)(7), of a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Subdivision (c)(1) is amended to require a manufacturer submitting a Driverless Testing Permit Operational Parameters Application to report any dynamic driving task performance relevant system failure that occurred in autonomous mode in the year prior to the date of application, which replaces disengagement reporting requirements. The industry is collectively opposed to

expanding disengagement reporting and does not see the nexus to measuring safety. They argue it is no longer a meaningful metric of system safety performance as current autonomous vehicle operational experience grows; manufacturers rely on more direct safety indicators relative to a human driver benchmark. The department supports industry stakeholders' recommendations to remove disengagement reporting requirements altogether. The department received many industry comments that disengagements, vehicle immobilizations, and dynamic driving task performance relevant system failures — all capture essentially the same scenario: an autonomous vehicle achieving a minimal risk condition. Therefore, the department is proposing manufacturers shall report dynamic driving task performance relevant system failures to assess autonomous vehicle on-road testing performance, in alignment with SAE J3016, when applying to implement and process changes, as described in Section 227.42, subdivision (o)(1) through (o)(7), to a Driverless Testing Permit. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In addition, subdivision (c)(1) references the electronic Vehicle Miles Traveled and Dynamic Driving Task Performance Relevant System Failure Reporting Templates (Rev. 2025), which the department will make accessible to manufacturers online. These reporting templates will serve as a centralized repository to provide additional clarity to the regulated public on data reporting requirements. These reporting templates create a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (c)(2) is amended to align with collision reporting requirements set forth in the current revision (June 2025) of the National Highway Traffic Safety Administration's (NHTSA) Standing General Order (SGO). Stakeholders provided comments demonstrating support towards nonduplicative collision reporting requirements. Therefore, the department is removing prior proposed language to align with federal crash reporting, instead requiring manufacturers to submit crash reports submitted to NHTSA in the year prior to the date of application to implement changes to a Driverless Testing Permit as described in Section 227.42 (o)(1) through (o)(7). The manufacturer shall submit the reports electronically in .csv format via the department's web portal. In addition, subdivision (c)(2) references the electronic Collision Reporting Template (Rev. 2/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the

regulated public on collision reporting requirements. These reporting templates create a standard, structured format for manufacturers to submit required collision data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (c)(3) is amended to remove reporting requirements for submitting a full description of all contributing factors that led to or caused each braking event and measures taken to remediate the cause of each braking event, where applicable. The department received comments from the autonomous vehicle industry to reduce or eliminate potentially burdensome reporting requirements that involve manual collection and review of qualitative data and are resource and labor intensive. The department retains investigatory authority to review any incident involving an autonomous vehicle operating on public roads through the Request for Information process. This ensures that the department will continue to capture information associated with safety-relevant and safety-critical incidents. In addition, subdivision (c)(3) references the electronic Braking Event Reporting Template (Rev. 2/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on braking event reporting requirements. This reporting template creates a standard, structured format for manufacturers to submit required braking data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. The manufacturer shall submit the report electronically in .csv format via the department's web portal.

Subdivisions (d) is adopted to provide additional regulatory clarity on the specific operational data required to supplement a select portion of the mileage requirements with autonomous vehicle testing conducted outside of California on public roads in an operational design domain that is the same or comparable to that which is intended for testing with a Driverless Testing Permit, and describe the standardized process for compiling and submitting the summary of out-of-state testing to the department. The required testing data is outlined in subdivisions (d)(1), (d)(2), and (d)(3) and is equivalent to what is

required for manufacturers providing evidence of testing conducted on public roads in California. This enables the department to evaluate safety-relevant and safety-critical incidents that occur out-of-state when assessing the safety of an autonomous heavy-duty commercial motor vehicle, thereby supporting the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (d) is renumbered to subdivision (e) and is amended to specify that this regulation applies to original or modifications, as described in Section 227.42, subdivision (o)(1) through (o)(7), of a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Subdivision (e) is renumbered to subdivision (f) and is amended to specify that this regulation applies to original or modifications, as described in Section 227.42, subdivision (o)(1) through (o)(7), of a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Subdivision (f)(1) is amended to include the term "remote operations support" which is defined in Subsection 227.02.

Subdivision (f)(1)(D) is amended to require manufacturers to describe the specific roles and responsibilities of team members tasked with addressing situations in which an autonomous vehicle enters a minimal risk condition. The department is removing the requirement to include response times, locations, and the number of personnel responsible for vehicle retrievals based on stakeholder comments that this information is dynamic and may vary based on operational needs and operational design domain constraints. The department retains its authority to inquire about specific safety-critical events through the Request for Information process.

Subdivision (f)(3) is amended to specify that this regulation applies exclusively to manufacturers of light-duty driverless vehicles submitting an original or modification, as described in Section 227.42, subdivision (o)(1) through (o)(7), of a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Subdivisions (f)(3)(B) through (f)(3)(E) are amended to include the term "remote support" which is defined in Section 227.02.

Subdivision (f)(3)(F) is amended to align how manufacturers shall respond to an emergency geofencing message issued by an emergency response official with

statutory requirements set forth in the California Vehicle Code section 38751 (d)(1) through (d)(4). The department received stakeholder comments addressing concerns that the proposed language is inconsistent with statute and creates requirements that go beyond emergency geofencing message statutory requirements adopted by the passage of Assembly Bill 1777 (2024), thereby creating confusion on expectations for manufacturers to respond to emergency geofencing messages issued by emergency response officials in a manner that complies with statute and regulations. The department agrees that there was an inconsistency, and the change has been made.

Subdivision (f)(3)(H) is amended to specify that this regulation applies if an autonomous vehicle is equipped with an override system to align with statutory requirements set forth in the California Vehicle Code section 38751 (b)(3). The department received many stakeholder comments on concerns regarding the department proposing to establish vehicle equipment and design mandates, which falls under NHTSA's regulatory authority, and new requirements that do not align with statutory language set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2024). Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements on the manual override system due to having no manual driving controls. Others brought forward safety concerns that publishing information on how to manually override the system in the first responder interaction plan can potentially lead to misuse and safety risks.

Numbering for subdivision (f)(3)(I) is adopted. For structural clarity, the department is separating subdivision (H) into (I) to distinguish between the override system requirement and training for law enforcement and firefighters on use of the override system. In addition, reference to first responders is replaced by law enforcement and firefighters to align with statutory language set forth in the California Vehicle Code section 38751 (b)(3) based on many stakeholder comments regarding consistency between statutory and regulatory requirements. The department accepts these recommendations, and the changes have been made.

Subdivision (f)(4) is amended to align requirements for in-vehicle visual indicators with statutory requirements set forth in the California Vehicle Code section 38750 (c)(1)(B). The department received many stakeholder comments on concerns regarding the department proposing to establish vehicle equipment and design mandates, which falls under NHTSA's regulatory authority, and establishing new requirements that do not align with statutory language set forth in the California

Vehicle Code section 38750 can unintentionally impede innovation. The department accepts these comments, and the text has been amended.

Subdivision (f)(5) is amended to clarify that the manufacturer must provide evidence from NHTSA regarding an exemption. Such evidence should include details relevant to the manufacturer's testing application (e.g., ODD limitations, specific routes, approved VINs).

Subdivision (f) is renumbered to subdivision (g). Non-substantive changes to subdivision (g).

Subdivision (g) is renumbered to subdivision (h). Non-substantive changes to subdivision (h).

Subdivision (h) is renumbered to subdivision (i) and is amended to provide additional clarity on the manufacturer requirements associated with developing, publishing, maintaining a First Responder Interaction Plan. This amendment is based on stakeholder comments to define manufacturers' responsibilities related to the First Responder Interaction Plan.

Non-substantive changes to subdivision (i)(1).

Subdivision (i)(1)(C) is amended to align with the term "remote operations support" which is defined in Section 227.02.

Subdivision (i)(1)(D) is adopted to require the manufacturer's address to be included in the first responder interaction plan. This supports manufacturer concerns on lack of clarity defining the issuance process for AV Notices of Noncompliance. This satisfies the existing gap that in the event law enforcement is unable to conduct a traffic stop, they would place the citation in the vehicle or mail the form to the manufacturer directly using the address provided in the first responder interaction plan.

Subdivision (h)(1)(D) is renumbered to subdivision (i)(1)(E)

Subdivision (h)(1)(E) is renumbered to subdivision (i)(1)(F) and is amended to specify that the requirement to provide description of how manufacturers shall immobilize the vehicle applies if an autonomous vehicle is equipped with an override system to align with statutory requirements set forth in the California Vehicle Code section 38751 (b)(3). The department received many stakeholder comments on concerns regarding the department proposing requirements that do not align with statutory language set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2024). Moreover, there were concerns on the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements to describe

how to immobilize the vehicle due to having no manual driving controls in the vehicle.

Subdivision (h)(1)(F) is renumbered to subdivision (i)(1)(G).

Subdivision (h)(1)(G) is renumbered to subdivision (i)(1)(H).

Subdivision (h)(1)(H) is renumbered to subdivision (i)(1)(I) and is amended to specify that the requirement to provide instructions to first responders on how to move the autonomous vehicle from the roadway applies if an autonomous vehicle is equipped with an override system to align with statutory requirements set forth in the California Vehicle Code section 38751 (b)(3). The department received many stakeholder comments on concerns regarding the department proposing requirements that do not align with statutory language set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2024). Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements to describe how to move the vehicle from the roadway due to having no manual driving controls in the vehicle.

Subdivision (h)(1)(I) is renumbered to subdivision (i)(1)(J).

Subdivision (h)(1)(J) is renumbered to subdivision (i)(1)(K).

Subdivision (h)(1)(K) is renumbered to subdivision (i)(1)(L).

Subdivision (h)(1)(L) is renumbered to subdivision (i)(1)(M).

Subdivision (h)(1)(M) is renumbered to subdivision (i)(1)(N) and is amended to align requirements for in-vehicle visual indicators with statutory requirements set forth in the California Vehicle Code section 38750 (c)(1)(B). In addition, due to the passage of Senate Bill 480 (Chapter 415, Statutes of 2025) in October 2025, this subdivision is amended to align with the Vehicle Code section 38750 (d) (4) (i), which allows autonomous vehicles to be equipped with automated driving system marker lamps that emit a blue light to indicate when the system is engaged. The department received many stakeholder comments on concerns regarding the department proposing to establish vehicle equipment and design mandates, which falls under NHTSA's regulatory authority, and establishing new requirements that do not align with statutory language set forth in the California Vehicle Code section 38750 can unintentionally impede innovation. The department accepts these recommendations, and the text has been amended.

Subdivision (h)(1)(N) is renumbered to subdivision (i)(1)(O).

Subdivision (i)(2) is amended to replace reference to subdivision (h)(1) with the renumbered subdivision (i)(1).

Subdivision (i)(2)(A) is amended to add the term “unreasonable,” which more closely aligns with the U.S. DOT NHTSA’s standard for investigating defects that pose an unreasonable risk of accident, death, or injury. This addresses stakeholder comments for consistency with federal requirements and provides additional guidance to the regulated public.

Subdivision (i)(2)(C) is amended to remove the phrase “verbal and non-verbal” and add the term “unreasonable,” which more closely aligns with the U.S. DOT NHTSA’s standard for investigating defects that pose an unreasonable risk of accident, death, or injury. This addresses stakeholder comments to allow the requirement on providing description of the automated driving system’s response to human directions to be broader and for consistency in the regulatory language with federal requirements.

Subdivision (i)(2)(E) is amended to align with the term “remote operations support” which is defined in Section 227.02.

Subdivision (i)(3) is amended to specify that manufacturers shall review the first responder interaction plan annually and require that such reviews shall be documented including by the issuance of a new version of the training program following the review. The department received industry stakeholder comments that it would impose a burden and be resource intensive to require manufacturers to review and submit a revised first responder interaction plan quarterly and could create confusion amongst first responders on which changes are in effect, which could contribute to public safety risk during emergencies. The department accepts this comment, and the text has been amended.

Non-substantive changes to subdivision (i)(4).

Subdivision (i)(5) is amended to specify that requiring manufacturers to provide a copy of the first responder interaction plan to law enforcement and other first responder agencies located within the operational design domain applies to original and modification applications for a Driverless Testing Permit, and to remove the requirement of submitting the most current version of the First Responder Interaction Plan to law enforcement and other first responder agencies. The department received comments from industry concerning that providing modified versions of the First Responder Interaction Plan to individual law enforcement and other first responders may create unintended confusion and impact safe interactions with driverless autonomous vehicles. Therefore, the

department is requiring manufacturers to submit the approved First Responder Interaction Plan during the time of application for an Original Driverless Testing Permit Application or Driverless Testing Permit Operational Parameters Modification Application to first responder agencies rather than individual first responders and each subsequent variation, if any, which will be submitted to the department and the California Highway Patrol.

Subdivision (i)(6) is amended to specify that manufacturers are required to provide a copy of a revised first responder interaction plan to the California Highway Patrol. This addresses industry comments regarding concerns that submitting revised First Responder Interaction Plans without prior approval could create confusion for local first responder agencies within the operational design domain (ODD). The amendment clarifies that any revisions must be submitted to both the California Highway Patrol (CHP) and the department, aligning with the existing process for submitting Law Enforcement Interaction Plans to the CHP.

Subdivision (i) is renumbered to subdivision (j) and is amended to specify that this regulation applies to original and modification applications for a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements that pertain to original and modification applications of a Driverless Testing Permit.

Subdivisions (j)(1) and (j)(3) through (j)(8) are removed based on comments from the autonomous vehicle industry regarding concerns of positively recognizing and responding to every type of active emergency vehicle that operates within the operational design domain which varies amongst jurisdictions. The department received stakeholder feedback that the automated driving system instead be designed to detect and respond to active emergency vehicles in a manner that complies with the California Vehicle Code.

Subdivision (i)(2) is renumbered to (j)(1) and is amended to specify that a manufacturer shall certify that the autonomous vehicle is designed to detect and respond to an active emergency vehicle, or first responder and ensure compliance with applicable provisions of the California Vehicle Code. The department received stakeholder feedback that the automated driving system be designed to detect emergency vehicles and first responders, as necessary, to comply with the California Vehicle Code rather than to positively detect every type of active emergency vehicle that operates within the operational design domain which varies amongst jurisdictions. For added clarity, the department has included Sections 21806, 21809, and 21706 to specify the applicable statutes governing interactions with emergency vehicles. The

department is proposing this change to ensure that an automated driving system's recognition and response to active emergency vehicles aligns with existing traffic safety laws. The department retains investigatory authority to review any incident involving an autonomous vehicle operating on public roads through the Request for Information process.

Subdivision (j)(5) is removed due to duplicative requirements with section 227.42 (j)(1).

Subdivision (i)(9) is renumbered to (j)(2) and is amended to specify that submission of the course outline and description of the first responder training applies to original and modification applications for a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements that pertain to original and modification applications of a Driverless Testing Permit.

Subdivision (i)(10) is renumbered to (j)(3) and is amended to align first responder training requirements on how to access and use the override system with statutory requirements set forth in the California Vehicle Code section 38751 (b)(3) and specify that manufacturers shall review the first responder training program annually and require that such reviews shall be documented including by the issuance of a new version of the training program following the review. The department received many stakeholder comments on concerns regarding the department proposing requirements that do not align with statutory language set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2024). Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements to describe how to move the vehicle from the roadway due to having no manual driving controls in the vehicle. In addition, the department acknowledges that the scaling and technical maturity of autonomous vehicle operations are dynamic, and that the First Responder Interaction Plan may not require updates as frequently as every quarter. Therefore, changes should be made on an "as needed" basis, and the requirement for quarterly updates has been revised to "at least annually."

Subdivision (j) is renumbered to subdivision (k).

Subdivision (k) is renumbered to subdivision (l) and is amended to specify that this regulation applies to original and modification applications for a Driverless Testing Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements that pertain to original and modification applications of a Driverless Testing Permit.

Subdivision (l) is renumbered to subdivision (m) and is amended to specify Original Driverless Testing Permit Application. This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle.

Subdivision (m) is renumbered to subdivision (n).

Subdivision (n) is renumbered to subdivision (o) and is amended to specify Driverless Testing Permit Operational Parameters Modification Application. This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle.

Subdivision (n)(7) is removed in response to stakeholder comments. The department recognizes that including this trigger as part of a permit modification may unduly delay changes that could enhance interactions with first responders. Any modification to an operational design domain will prompt an updated First Responder Plan, and the department retains the authority to inquire into interactions with first responders through the Request for Information process.

Subdivision (n)(8) is renumbered to subdivision (o)(7).

Subdivision (p) is adopted in response to stakeholder comments requesting enhanced clarity regarding the specific requirements to modify a Driverless Testing Permit. This provides guidance to the regulated public by specifying which requirements apply at each stage of the permit lifecycle.

Subdivisions (p) is adopted to distinguish implementing administrative changes to a Driverless Testing Permit from more complex changes to the operational design domain or automated driving system's capabilities as prescribed in subdivision (o). This addresses concerns from manufacturers for enhanced clarity on the specific requirements to modify a Driverless Testing Permit.

Subdivision (n)(9) is renumbered to subdivision (p)(1) and is amended to replace reference to section 227.40 (c)(5) to the renumbered section 227.40 (b)(5).

Subdivision (n)(10) is renumbered to subdivision (p)(2) and is amended to remove reference to remote assistance as requirements for remote assistants to hold a permit are being removed.

Subdivision (n)(11) is renumbered to subdivision (p)(3).

Subdivision (n)(12) is renumbered to subdivision (p)(4) and is amended to remove reference to remote assistance as requirements for remote assistants to hold a permit are being removed as well as specify this regulation pertains to vehicles and remote drivers that were not previously identified on the Original Driverless Testing Permit.

Subdivision (n)(13) is renumbered to subdivision (p)(5).

Subdivision (n)(14) is renumbered to subdivision (p)(6).

Subdivision (n)(15) is renumbered to subdivision (p)(7) and is amended to replace reference to section 227.40 (b)(7) to the renumbered section 227.40 (a)(7).

§ 227.44. Refusal of Autonomous Vehicle Testing Permit or Testing Permit Renewal.

The Section 227.44 introductory paragraph is renumbered to subdivision (a) and to clarify that the grounds for refusal of a drivered or driverless testing permit apply not only to original and renewal permit applications but also to modification applications. This change is necessary to ensure that the department retains the authority to evaluate and, if warranted, refuse any application—original, renewal, or modified—when the operation of a manufacturer’s autonomous vehicles may pose a risk to public safety. Modification applications for a driverless testing permit may include significant changes to the operational design domain, vehicle technology, safety features, or operational strategies. These changes can materially affect the safety profile of the autonomous vehicles operating on California’s public roads. Therefore, it is essential that the department have the ability to assess whether such changes introduce new or increased risks to the public.

Subdivision (a) is renumbered to subdivision (a)(1).

Subdivision (b) is renumbered to subdivision (a)(2).

Subdivision (c) is renumbered to subdivision (a)(3).

Subdivision (d) is renumbered to subdivision (b) to provide additional clarity that this regulation is separate from one of the reasons that the department may refuse an original or a renewal application for a Drivered or a Driverless Testing Permit.

§ 227.46. Restriction of Autonomous Vehicles Testing Permit.

Non-substantive changes to subdivision (c).

§ 227.48. Suspension, or Revocation, Restriction of Autonomous Vehicle Testing Permit.

Non-substantive changes to subdivision (a).

Subdivision (a)(4) is amended to remove affiliates from being subject to compliance with this regulation. This amendment adds clarity based on industry concerns on defining who is responsible for compliance with reportable requirements and specifies that a manufacturer is the entity which is responsible for autonomous vehicle development and supporting its operation.

Subdivision (a)(7) is adopted to give authority to the department to issue a suspension, revocation, or restriction based on a directive, restriction, or prohibition issued by the Federal Transit Administration (FTA) to a transit agency. The provision is intended to ensure the safe operation of autonomous vehicles on public roads.

Subdivision (a)(7) is renumbered to (a)(8) and is amended to remove duplicative language.

Non-substantive changes to subdivision (b).

Subdivision (b)(6) is amended to remove affiliates from being subject to compliance with this regulation. This amendment adds clarity based on industry concerns on defining who is responsible for compliance with reportable requirements and specifies that a manufacturer is the entity which is responsible for autonomous vehicle development and supporting its operation.

Subdivision (b)(9) is adopted to give authority to the department to issue a suspension, revocation, or restriction based on a directive, restriction, or prohibition issued by the Federal Transit Administration (FTA) to a transit agency. The provision is intended to ensure the safe operation of autonomous vehicles on public roads.

Subdivision (b)(9) is renumbered to (b)(10).

Non-substantive changes to subdivision (c).

§ 227.50. Demand for Hearing.

Non-substantive changes to subdivision (a).

§ 227.52. Reinstatement of Testing Permit.

Non-substantive changes to Section 227.52.

§ 227.54. Reporting Collisions.

Section 227.54 is amended to specify that only crashes occurring within the State of California are reportable and reference the current revision date (June 2025) of NHTSA's Standing General Order. This addresses industry comments that the prior proposed language is ambiguous and unclear regarding which crash reports manufacturers are expected to send, whether all that are submitted to NHTSA or limited to those that occurred within California. Manufacturers indicated that they should not be required to submit out-of-state crash reports, which they stated would be overly burdensome, resource intensive, and does not provide any safety relevance. In addition, the department received comments to update the referenced version of NHTSA's Standing General Order to the most current. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In addition, section 227.54 references the electronic Collision Reporting Template, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on collision reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required collision data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a) is amended to align with NHTSA's Standing General Order collision reporting requirements and allow manufacturers to electronically submit a Report of Traffic Collision Involving an Autonomous Vehicle, form OL 316 (Rev. 7/2020) through the department's web page or portal. Stakeholders provided comments demonstrating support towards nonduplicative collision reporting requirements. Therefore, the department is adding language to align with 1-day, 5-day, and 30-day federal crash reporting requirements. In addition, manufacturers unanimously support the department's transition to automating data reporting and establishing an online portal for intake of collision data.

Subdivision (b) is amended to provide additional clarity on the type of safety-relevant supplemental information the department may request in its review and investigation of a collision. This addresses stakeholder concerns on lack of regulatory clarity on the type of information that shall be provided upon request by the department.

Subdivision (d) is adopted to establish requirements if there is no collision to report during the reporting period.

§ 227.56. Reporting Disengagement of Autonomous Mode.

Prior Section 227.56 Reporting Disengagement of Autonomous Mode is removed to eliminate disengagement reporting requirements. The industry is collectively opposed to expanding disengagement reporting and does not see the nexus to measuring safety. They argue it is no longer a meaningful metric of system safety performance as current autonomous vehicle operational experience grows; manufacturers rely on more direct safety indicators like collision rates relative to a human driver benchmark. The department supports industry stakeholders' recommendations to remove disengagement reporting requirements altogether. The department received many industry comments that disengagements, vehicle immobilizations, and dynamic driving task performance relevant system failures — all capture essentially the same scenario: an autonomous vehicle achieving a minimal risk condition. Therefore, the department is proposing for drivered testing, manufacturers shall report dynamic driving task performance relevant system failures to assess autonomous vehicle on-road testing performance, in alignment with SAE J3016, and for driverless testing, manufacturers shall report vehicle immobilizations.

§ 227.56. Reporting Dynamic Driving Task Performance Relevant System Failures.

Section 227.56 is adopted to establish monthly reporting of dynamic driving task performance relevant system failures occurring during drivered testing, replacing disengagement reporting as defined in subdivisions (a) and (b). The department received comments in favor of reporting dynamic driving task performance relevant system failures as a better alternative to disengagement reporting but emphasized it should be clearly defined and limited to events with actual safety relevance. They advocated for this category to replace disengagement reporting over time, since it better reflects meaningful operational risks and avoids the over-reporting of routine, non-safety deactivations. The department supports removing disengagement reporting in favor of enhanced visibility, oversight, and enforcement of safety-relevant or safety-critical situations whereby a test driver took over performance of the dynamic driving task or performed the dynamic driving task fallback in response to a dynamic driving task performance relevant system failure. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In the event there is no dynamic driving task performance relevant system failure that occurred during the reporting period, the manufacturer shall report such to the department. In addition, subdivision (b) references the electronic Dynamic Driving Task Performance Relevant System Failure Reporting Template, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized

repository to provide additional clarity to the regulated public on data reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (c) is adopted to establish the reporting requirements for dynamic driving task performance relevant system failures.

Subdivision (c)(1) is adopted to specify reporting of the date of the dynamic driving task performance relevant system failure in YYYY-MM-DD format and time in 24-hour format.

Subdivision (c)(2) is adopted to specify reporting of the latitude and longitude coordinates associated with where the dynamic driving task performance relevant system failure occurred using four decimal places of precision.

Subdivision (c)(3) is adopted to specify that the report shall provide a description of the underlying cause of the dynamic driving task performance relevant system failure using the following categories: type of software issue, type of hardware issue, actions of other road users, weather conditions, road surface or traffic conditions, construction, loss of communication, other emergencies, or collisions. The description should be written in plain language with enough detail that a non-technical person can understand the circumstances.

Subdivision (d) is adopted to provide additional clarity on the type of safety-relevant supplemental information the department may request in its review and investigation of a driving task performance relevant system failure. This addresses stakeholder concerns on lack of regulatory clarity on the type of information that shall be provided upon request by the department.

§ 227.58. Reporting Vehicle Immobilizations.

Subdivision (a) is amended to reference the electronic Vehicle Immobilization Reporting Template (Rev. 2/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on data reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to

submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. The manufacturer shall submit the report electronically in .csv format via the department's web portal. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. In addition, subdivision (a) is amended to establish requirements if there is no vehicle immobilization to report during the reporting period.

Subdivision (b)(1) is amended to specify reporting of the date of the vehicle immobilization in YYYY-MM-DD format and time in 24-hour format.

Subdivision (b)(2) is amended to specify reporting of the latitude and longitude coordinates associated with where the vehicle immobilization occurred using four decimal places of precision.

Subdivision (b)(3) is amended to remove license plate as a reportable data element. The 17-character vehicle identification number is a unique indicator assigned to each vehicle whereas a license plate number may change. Collecting the vehicle identification number will allow the department to track the vehicle's safety performance across its operational lifecycle.

Subdivision (b)(4) is adopted to require all autonomous vehicle manufacturers to report the speed limit of the roadway where the vehicle immobilization occurred in meters per second (m/s) to ensure consistency, accuracy, and comparability in the analysis of autonomous vehicle (AV) incident data. This standardized unit of measurement aligns with international scientific and engineering norms and facilitates uniform data processing across platforms and jurisdictions.

Subdivision (b)(4) is renumbered to (b)(5) and is amended to specify that manual intervention during a vehicle immobilization event involves manual driving by a human driver for vehicles with manual driving controls or remote support by a remote driver for purpose-built vehicles (no manual driving controls). This express term has been amended based on stakeholder comments to establish a more objective trigger for assessing how long a vehicle was stopped.

Subdivision (b)(5) is renumbered to (b)(7).

Subdivisions (b)(6), and (b)(8) through (b)(11) are adopted to include additional reportable data for vehicle immobilizations. This aligns with stakeholder comments that expanded data reporting requirements have clear safety

relevance and objective criteria and to consolidate minimal risk condition events into immobilization reporting.

§ 227.60 Reporting Vehicle Miles Traveled.

Subdivision (a) is adopted to establish monthly reporting of vehicle miles traveled while testing in autonomous on public roads under each permit. A manufacturer that holds both a Drivered Testing Permit and a Driverless Testing Permit shall submit a single report that makes clear total number vehicle miles traveled under each type of testing permit. In addition, subdivision (a) is amended to establish requirements such that in the event no autonomous on-road testing occurred during the reporting period the manufacturer shall report such to the department.

Subdivision (b) references the electronic Vehicle Miles Traveled Reporting Template, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on mileage reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required mileage data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. The manufacturer shall submit the report electronically in .csv format via the department's web portal.

§ 227.62. Test Vehicle Registration and Certificates of Title.

Section 227.60 is renumbered to Section 227.62.

Non-substantive changes to subdivision (d).

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

Section 227.62 is renumbered to Section 227.64.

Non-substantive changes to subdivision (a).

Subdivision (f) is adopted to address use cases in which the original equipment manufacturer produces the base vehicle with the components necessary for autonomous operation. In these cases, the manufacturer does not modify the vehicle after it's originally manufactured. The intent of the prohibition on transfers in Section 227.64 is to prevent the transfer of vehicles that have been

converted into autonomous vehicles by installing autonomous technology after the vehicle was originally manufactured. This prohibition is aimed at scenarios where a manufacturer modifies a completed base vehicle, rather than those where autonomous capabilities are integrated during the original manufacturing process.

§ 227.66. Reporting Braking Events.

Section 227.64 is renumbered to Section 227.66.

Subdivision (a) is amended to change the reportable threshold for braking events to those that produce speed decrease of 3 meters per second (m/s) or more from braking at a deceleration rate that exceeds 5 meters per second squared (m/s/s) for at least 0.5 seconds during the operation of an autonomous vehicle in autonomous mode on a public road with a speed limit of 35 miles per hour or higher. In addition, the department is amending the proposed regulatory language to reflect measurement units using the metric system instead of the U.S. customary system to align with accepted industry standards and best practices for collecting braking data. The department received comments from industry that emphasized that over-reporting benign safety maneuvers that could indicate responsive and appropriate behavior could mislead public interpretation of autonomous vehicle safety and increase compliance burdens without actionable value. They cautioned it would generate excessive, low-value data noise, diverting resources from actual safety analysis and investigation. They recommended narrowing reporting to focus on events that present the most potential risk rather than overly broad criteria. The express term has been amended based on stakeholder feedback to further clarify the reporting requirements, limiting braking event reports to roadways with higher posted speed limits—where the risk of collision from unexpected braking is greater compared to lower-speed roads. The duration of reportable braking events is amended to at least 0.5 seconds due to total speed reduction of 3 m/s/s. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In addition, subdivision (a) references the electronic Braking Event Reporting Template, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on braking event reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required braking data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality,

and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a)(1) is amended to specify reporting of the date of the braking event in YYYY-MM-DD format and time in 24-hour format.

Subdivision (a)(2) is amended to require manufacturers to provide the full, 17-character vehicle identification number associated with each vehicle that meets braking thresholds described in subdivision (a). The 17-character vehicle identification number is a unique indicator assigned to each vehicle whereas a license plate number may change. Collecting the vehicle identification number will allow the department to track the vehicle's safety performance across its operational lifecycle.

Subdivision (a)(3) is amended to specify reporting of the latitude and longitude coordinates associated with where the braking event occurred using four decimal places of precision.

Subdivision (a)(4) is amended to specify reporting of the type of object(s) recognized by the automated driving system that triggered the braking action. This addresses manufacturer concerns associated with target object recognition, which would be labor-intensive manual review and recommendations to limit reportable data to that which would be automatable and scalable.

Subdivision (a)(5) is amended to specify measurement units of the range in meters (m) and the closing rate in meters per second (m/s). To ensure consistency, accuracy, and comparability in the analysis of autonomous vehicle incident data, the department requires all autonomous vehicle manufacturers to report in meters per second (m/s). This standardized unit of measurement aligns with international scientific and engineering norms and facilitates uniform data processing across platforms and jurisdictions.

Subdivision (a)(6) is amended to require reporting of the total speed reduction of the braking event in meters per second (m/s). Capturing this data will support the department's ability to evaluate the automated driving system's braking behavior. To ensure consistency, accuracy, and comparability in the analysis of autonomous vehicle incident data, the department requires all autonomous vehicle manufacturers to report in meters per second (m/s). This standardized unit of measurement aligns with international scientific and engineering norms and facilitates uniform data processing across platforms and jurisdictions.

Subdivision (a)(7) is adopted to require reporting of the highest braking rate, which would represent the braking rate within the 0.5 second interval with the strongest braking, showing how high the sustained peak is.

Subdivision (a)(1) is renumbered to subdivision (b) and is amended from 30 days to 60 days based on stakeholder feedback regarding short reporting timelines that do not provide a sufficient or reasonable amount of time to provide the required data. This change grants manufacturers additional time to prepare their first report after receiving a drivered or driverless testing permit.

Subdivision (a)(2) is renumbered to subdivision (b)(1) and is amended based on stakeholder feedback regarding short reporting timelines that do not provide a sufficient or reasonable amount of time to provide the required data. Given the complexity of the data reporting requirements, the department will receive the data on a monthly basis, in arrears.

Subdivision (b) is renumbered to subdivision (c).

§ 227.68. Notice of Autonomous Vehicle Noncompliance.

Section 227.66 is renumbered to Section 227.68.

The Notice of Autonomous Vehicle Noncompliance form referenced in subdivision (a) has been updated to provide officers with additional guidance on reporting the location of an incident. Officers will be required to include both the roadway where the incident occurred and the GPS coordinates. In Section 3, the term "Fall Back Ready User" has been changed to "Human Driver" to use clearer and more straightforward language for the officer.

In Section 5, the phrase "Not present in the vehicle" has been revised to "No Human Driver" to improve clarity and better indicate that no human driver is present in the vehicle. These amendments will help the department more accurately determine the precise location of each incident and assist officers in capturing relevant details, which will support the department's review process.

Subdivisions (b) and (e) are amended to require both the manufacturer and a peace officer to submit the contents of the form (e.g., digitally) to the department within 72 hours of receipt or 24 hours of receipt, if a priority review is marked on the form. The California Vehicle Code section 38752 requires the manufacturer to submit the form to the department. Manufacturers submitted comments to the department addressing concerns that the reporting timeframe to send Notices to the department within 24-hours/72-hours of issuance does not consider situations where it may take more time for manufacturers to receive Notice due to no previously defined process for issuing/receiving Notices, for

example, when the Notice is mailed by law enforcement. Industry widely supports that the timeline to submit Notices of AV Noncompliance be based on receipt instead of issuance. The manufacturer shall submit the form electronically via the department's web page or portal. In addition, subdivision (b) references the electronic Notice of Autonomous Vehicle Noncompliance Reporting Template (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on required data to submit to the department from the Notice of Vehicle Noncompliance, form OL 325. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements. This will improve standardization and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (c) is adopted to specify the placement of the form within the vehicle. Manufacturers submitted comments to the department addressing concerns on no defined, clear, standardized process for issuing/receiving Notices. Manufacturers provided that regulatory uncertainty and ambiguity on the transmission process could lead to inefficiencies or other issues with meeting compliance requirements. In response to public comments, the department is proposing that the form will be placed in the designated location registration, insurance, and permit information, which must be accessible to law enforcement, will be stored, as identified in the manufacturer's first responder interaction plan. The peace officer may also give the notice to the manufacturer's designee arriving at the scene of the incident. Subdivision (c) is also adopted to require the peace officer conducting the traffic stop to state their name and department and follow provisions of the California Vehicle Code section 2806.5, which addresses concerns from stakeholders regarding identification of the peace officer.

Subdivision (d) is adopted to specify that law enforcement can also mail the form to the manufacturer's address as listed in the first responder interaction plan within 72 hours of the incident in the event the notice is issued in circumstances other than a traffic stop. This satisfies the existing gap that in the event there is not a traffic stop, law enforcement would mail the form to the manufacturer directly using the address provided in the first responder interaction plan and provide a copy to the department.

Subdivision (d) is renumbered to (f).

Subdivision (f)(3) is amended to specify reporting of the date of the alleged violation in YYYY-MM-DD format.

Subdivision (e) is renumbered to (g) and is amended to remove the term “host,” replacing with “subject.” This is a non-substantive change that provides greater clarity when referring to the autonomous vehicle.

Subdivision (f) is removed as it is deemed duplicative and therefore unnecessary. Enforcement authority is already addressed in Sections 227.44, 227.46, and 227.48 of Article 3.7.

§ 227.70. Preliminary Information Notice.

Section 227.68 is renumbered to Section 227.70.

Subdivision (a) is amended to specify a manufacturer's response to a Preliminary Information Notice shall make a good faith effort within a reasonable time that is informed by the nature of the issue underlying the Notice and the scope of the Notice. This removes proposed requirements that prescribe a specific timeframe for manufacturers to respond to the Notice. This change addresses manufacturer comments that the proposed timeframe to respond to the Notice is unreasonably insufficient for manufacturers to fully investigate the incident and provide the department with the requested information. The department will exercise its broad authority to require manufacturers to make a good faith effort to respond, rather than imposing a default 72-hour deadline. A good faith effort includes being timely, cooperative, and diligent in providing relevant facts or documents related to an incident. The department retains the authority to shorten response times based on the circumstances and severity of the incident. This will allow the department to receive quicker turnaround for incidents that pose an imminent hazard to public safety.

Non-substantive changes to subdivisions (a)(2) and (a)(4).

§ 227.72. Request for Information.

Section 227.70 is renumbered to Section 227.72.

Subdivision (a) is amended to specify a manufacturer's response to a Request for Information shall make a good faith effort within a reasonable time that is informed by the nature of the issue underlying the Request and the scope of the Request. This removes proposed requirements that prescribe a specific timeframe for manufacturers to respond to the Request. This change addresses manufacturer comments that the proposed timeframe to respond to the Request is unreasonably insufficient for manufacturers to fully investigate the incident and provide the department with the requested information. The

department will exercise its broad authority to require manufacturers to make a good faith effort to respond, rather than imposing a default 10-day deadline. A good faith effort includes being timely, cooperative, and diligent in providing relevant facts or documents related to an incident.

Subdivision (a)(3) is amended to remove erroneous reference to the Deployment Permit, replacing with Drivered or Driverless Testing Permit.

Subdivision (a)(4) is adopted to provide additional clarity on the type of safety-relevant supplemental information the department may request in its review and investigation of an incident. This addresses stakeholder concerns on lack of regulatory clarity on the type of information that shall be provided upon request by the department.

Subdivisions (a)(4) through (a)(12) are removed due to comments from the autonomous vehicle industry that due to the department's enforcement authority leveraged by a Request for Information, the incidents which precipitate the department's investigation should be substantiated reports, such as operation that violates the California Vehicle Code, poses an unreasonable risk of accident, death, injury, or exacerbating injury, or does not comply with operational parameters approved in the authorized permit.

§ 227.74 Confidential Business Information.

Section 227.72 is renumbered to Section 227.74.

Subdivision (d) is adopted to specify that "Confidential Business Information" to include information exempt from disclosure under the California Public Records Act (Government Code section 7927.205), information protected as a trade secret under the Evidence Code (section 1060), and related provisions of the Civil Code (sections 3426.1–3426.11) which will be protected when manufacturers submit applications or other data requested by the department. The department received comments from industry to specify the types of Confidential Business Information protections that will be afforded to manufacturers. This amended language further clarifies the procedures the department will take for handling Confidential Business Information.

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Article 3.8. Deployment of Autonomous Vehicles

§228.02. Definitions.

Subdivision (c) is amended to reference the Deployment Permit, form OL 321A.

Subdivision (d) is amended to provide additional clarity that the manufacturer may submit the application form electronically via the department's web page or portal.

Subdivisions (e) and (g) are adopted based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each application's distinct requirements and certifications applicable at each stage of the permitting lifecycle. All references to an original and amended Deployment Permit Application throughout Article 3.8 are replaced by Original Deployment Permit Application and Deployment Permit Operational Parameters Amendment Application. The department supports these comments and is making the recommended change. In addition, subdivisions (e) and (g) provide additional clarity that the manufacturer may submit the application form electronically via the department's web page or portal.

Former subdivision (e) is relocated from Article 3.8 to Article 3.7 as Subdivision (z) and shall apply to both Articles.

Subdivision (g) is renumbered to subdivision (h).

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

No additional amendments are being made to Section 228.04.

§ 228.06. Requirements, Qualifications, and Training for Remote Drivers and Remote Assistants.

No additional amendments are being made to Section 228.06.

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

All references to the original and amended Deployment Permit Application in Section 228.08 are replaced by Original Deployment Permit Application and Deployment Permit Operational Parameters Amendment Application. This amendment is based on comments from the autonomous vehicle industry to address permitting ambiguity by providing a clearer delineation of each

application's distinct requirements and certifications applicable at each stage of the permitting lifecycle.

Subdivision (a) is amended to provide additional clarity that the manufacturer may submit the Original Deployment Permit Application or Deployment Permit Operational Parameters Amendment Application electronically via the department's web page or portal.

Subdivision (a)(1) is amended to specify that this regulation applies to the Original Deployment Permit Application. This addresses concerns from manufacturers for enhanced clarity on the specific application requirements for a Deployment Permit.

Non-substantive changes to subdivisions (a)(1)(A).

Subdivisions (a)(1)(A)(i) and (a)(1)(B)(i) are amended to require manufacturers applying for an Original Deployment Permit to submit the results of an assessment of operational data from testing with a valid Testing Permit, form OL 315 and/or form OL 315A, described in subdivision (D). Requirements for submitting a comprehensive description of a completed safety case, including core safety information elements documentation, are specified in separate subdivision (C).

Subdivision (a)(1)(B) is amended to clarify reporting requirements outlined in subdivision (E) for manufacturers of autonomous heavy-duty commercial motor vehicles that opt to meet a portion of mileage-based permitting requirements by submitting operational data from testing conducted outside of California in an operational design domain that is the same or comparable to that which is intended for operation with a Deployment Permit.

Subdivision (a)(1)(C) is adopted to require manufacturers applying for an Original Deployment Permit to submit a comprehensive description of a completed safety case, supported by core safety information elements documentation that provides sufficient evidence demonstrating compliance with functional safety, safety of the intended function, Artificial Intelligence safety, cybersecurity, and operational safety. These core safety information elements reflect industry best practices established by the Automated Vehicle Safety Consortium and serve as a framework for evaluating a manufacturer's overall approach to autonomous vehicle safety. This provides regulatory clarity regarding the contents of a safety case that the department will use to evaluate and assess autonomous vehicle safety. In addition, subdivision (a)(1)(C) specifies that the department may consult with third-party technical experts to review a manufacturer's safety case. This aligns with the California

Vehicle Code section 38750 (d)(2), which allows the department to consult with any entity that has expertise in automotive technology, automotive safety, and autonomous system design.

Subdivision (a)(1)(C) is renumbered to (a)(1)(D).

Subdivision (a)(1)(D)(i) is amended to include the correct reference to the Society of Automotive Engineers (SAE) International's Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (APR2021).

Subdivisions (a)(1)(D)(i)(aa) and (a)(1)(D)(ii)(aa) reference the electronic Vehicle Miles Traveled Reporting Template (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on data reporting requirements. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. The manufacturer shall submit the report electronically in .csv format via the department's web portal.

Subdivisions (a)(1)(D)(i)(bb) and (a)(1)(D)(ii)(bb) are amended to align with collision reporting requirements set forth in the current revision (June 2025) of the National Highway Traffic Safety Administration's (NHTSA) Standing General Order (SGO). Stakeholders provided comments demonstrating support towards nonduplicative collision reporting requirements. Therefore, the department is removing prior proposed language to align with federal crash reporting, instead requiring manufacturers to submit crash reports submitted to NHTSA in the year prior to the date of application. The manufacturer shall submit the reports electronically in .csv format via the department's web portal. In addition, subdivisions (a)(1)(D)(i)(bb) and (a)(1)(D)(ii)(bb) reference the electronic Collision Reporting Template (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on collision reporting requirements. This reporting template will create a standard, structured format for manufacturers to submit required collision data and will include reference to NHTSA's SGO data dictionary that describes the required data elements in detail, including data format, field names, and measurement

units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivisions (a)(1)(D)(i)(cc) and (a)(1)(D)(ii)(cc) are amended to remove reporting requirements for submitting a full description of all contributing factors that led to or caused each braking event and measures taken to remediate the cause of each braking event, where applicable. The department received comments from the autonomous vehicle industry to reduce or eliminate potentially burdensome reporting requirements that involve manual collection and review of qualitative data and are resource and labor intensive. The department retains investigatory authority to review any incident involving an autonomous vehicle operating on public roads through the Request for Information process. This ensures that the department will continue to capture information associated with safety-relevant and safety-critical incidents. In addition, subdivisions (a)(1)(D)(i)(cc) and (a)(1)(D)(ii)(cc) reference the electronic Braking Event Reporting Template (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on braking event reporting requirements. This reporting template creates a standard, structured format for manufacturers to submit required braking data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. The manufacturer shall submit the report electronically in .csv format via the department's web portal.

Subdivision (a)(1)(D)(i)(dd) is amended to require manufacturers applying for an Original Deployment Permit to report any dynamic driving task performance relevant system failure that occurred in autonomous mode in the year prior to the date of application, which replaces disengagement reporting requirements. The industry is collectively opposed to expanding disengagement reporting and does not see the nexus to measuring safety. They argue it is no longer a meaningful metric of system safety performance as current autonomous vehicle operational experience grows; manufacturers rely on more direct safety indicators relative to a human driver benchmark. The department supports industry stakeholders' recommendations to remove disengagement reporting requirements altogether. The department received many industry comments

that disengagements, vehicle immobilizations, and dynamic driving task performance relevant system failures — all capture essentially the same scenario: an autonomous vehicle achieving a minimal risk condition. Therefore, the department is proposing manufacturers shall report dynamic driving task performance relevant system failures to assess autonomous vehicle on-road testing performance, in alignment with SAE J3016. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In addition, subdivision (a)(1)(D)(i)(dd) references the Dynamic Driving Task Performance Relevant System Failure Reporting Templates (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on data reporting requirements. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a)(1)(D)(ii)(dd) is removed due to the removal of disengagement reporting, replaced by reporting of dynamic driving task performance relevant system failures.

Subdivision (a)(1)(C)(ii)(ee) is renumbered to (a)(1)(C)(ii)(dd) and amended to include reference to the electronic Vehicle Immobilization Reporting Template(Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. The manufacturer shall submit the report electronically in .csv format via the department's web portal.

Subdivision (a)(1)(E) is adopted to provide additional regulatory clarity on the specific operational data required to supplement a select portion of the mileage requirements with autonomous vehicle testing conducted outside of California on public roads in an operational design domain that is the same or comparable to that which is intended for operation with a Deployment Permit, and describe the standardized process for compiling and submitting the summary of out-of-state testing to the department. The required testing data is

outlined in subdivisions (a)(1)(E)(i), (a)(1)(E)(ii), and (a)(1)(E)(iii) and is equivalent to what is required for manufacturers providing evidence of testing conducted on public roads in California. This enables the department to evaluate safety-relevant and safety-critical incidents that occur out-of-state when assessing the safety of an autonomous heavy-duty commercial motor vehicle, thereby supporting the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a)(2) is amended to specify that this regulation applies to amendments, as described in Section 228.12, subdivision (b), of a Deployment Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to amend a Deployment Permit.

Subdivision (a)(2)(A) is adopted to require manufacturers submitting a Deployment Permit Operational Parameters Amendment Application to provide a comprehensive description of a completed safety case, supported by core safety information elements documentation that provides sufficient evidence demonstrating compliance with functional safety, safety of the intended function, Artificial Intelligence safety, cybersecurity, and operational safety. These core safety information elements reflect industry best practices established by the Automated Vehicle Safety Consortium and serve as a framework for evaluating a manufacturer's overall approach to autonomous vehicle safety. This provides regulatory clarity regarding the contents of a safety case that the department will use to evaluate and assess autonomous vehicle safety. In addition, subdivision (a)(2)(A) specifies that the department may consult with third-party technical experts to review a manufacturer's safety case. This aligns with the California Vehicle Code section 38750 (d)(2), which allows the department to consult with any entity that has expertise in automotive technology, automotive safety, and autonomous system design.

Subdivision (a)(2)(B) is adopted to allow the department to request additional information related to the application it deems necessary from the manufacturer if the department ascertains a necessity for more information to assess the safety of an autonomous vehicle capable of operating an autonomous vehicle on public roads. This regulation is adopted to provide the department with specific information involving the operation of autonomous vehicles on public roads and supports the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a)(2)(A) is renumbered to (a)(2)(C) and is amended to provide additional clarity when referencing manufacturers of autonomous heavy-duty commercial motor vehicles in subsection (a)(1)(B).

Subdivision (a)(2)(A) is renumbered to (a)(2)(D) and is amended provide additional regulatory clarity on the operational data required to supplement a select portion of the mileage requirements with autonomous vehicle testing conducted outside of California on public roads in an operational design domain that is the same or comparable to that which is intended for operation with a Deployment Permit, and describe the standardized process for compiling and submitting the summary of out-of-state testing to the department. The required testing data is outlined in subdivisions (a)(1)(E)(i), (a)(1)(E)(ii), and (a)(1)(E)(iii) and is equivalent to what is required for manufacturers providing evidence of testing conducted on public roads in California. This enables the department to evaluate safety-relevant and safety-critical incidents that occur out-of-state when assessing the safety of an autonomous heavy-duty commercial motor vehicle, thereby supporting the department's oversight, regulation, and enforcement of autonomous vehicle operations. In addition, subdivision (a)(2)(D) is amended to remove the 100,000-mile testing requirement within the operational design domain (ODD) in California. This requirement was inadvertently included in the initial draft of the express terms and does not reflect the intent outlined in the Initial Statement of Reasons.

Subdivision (a)(3) is amended to specify that this regulation applies to original and amendments, as described in Section 228.12, subdivision (b), of a Deployment Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to submit a Deployment Permit Application and provides clearer delineation of the requirements applicable at each stage of the permit lifecycle.

Subdivision (a)(3)(A) is amended to limit the driverless testing and deployment of autonomous heavy-duty commercial motor vehicles—except for medium-duty vehicles used to transport passengers, as described in section 227.26(a)(6)(B)—on local roads with a posted speed limit of 25 miles per hour or less. These vehicles may only operate on such roads if the roads fall within a direct route between hubs, motor carrier and shipper facilities, distribution centers, fueling or charging stations, maintenance facilities or terminals as defined in California Vehicle Code 34515, or other non-residential facilities, and if the roads permit travel by that vehicle weight class.

The department appreciates receiving stakeholder comments regarding the department's proposed restriction of autonomous heavy-duty commercial motor vehicle operation on roads with a posted speed limits of 25 miles per hour or less. The department maintains this operational design domain restriction due to public safety considerations associated with the complexity of certain roadway environments, such as residential neighborhoods, school zones, and

urban cores, while amending the allowable exceptions to clarify that routes need not include freeways and removing the requirement for manufacturers to submit all specific routes on which they will operate, in response to feasibility concerns raised by commenters. By referencing a new definition of “direct route,” this amendment establishes a clear standard for acceptable routes for deployment of autonomous heavy-duty commercial motor vehicles—those that are the most linear, geographically logical, and efficient, while preserving safety and regulatory compliance.

Subdivision (a)(3)(A)(i) is amended based on stakeholder comments to clarify that a remote assistant does not assume control of the vehicle. This revision aligns with SAE J3016.

Subdivisions (a)(4) through (a)(7) and (a)(10) through (a)(12) are amended to specify that this regulation applies to original and amendments, as described in Section 228.12, subdivision (b), of a Deployment Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to submit a Deployment Permit Application and provides clearer delineation of the requirements applicable at each stage of the permit lifecycle.

Non-substantive changes made to subdivision (a)(8).

Subdivision (a)(9) is amended to align the provision with Article 3.7, Section 227.54 (e).

Subdivision (a)(12)(B) is amended to specify that a manufacturer shall certify that it has established processes for making updates to location and mapping, which includes consideration of reliable public information. The department is proposing this change to require manufacturers to have established methods of developing, validating, and releasing software updates due to expected/planned or dynamic changes within the operational design domain to ensure that the automated driving system’s perception of the driving environment accurately reflects real-time conditions. This amendment is based on stakeholder comments to clarify that the manufacturer has established a process for implementing updates that ensure the safe operation of the automated driving system.

Subdivision (a)(12)(C) is amended based on stakeholder comments and aligns with the definition of “end user” provided in Article 3.7. The department received comments to define this term, which is already referenced in Article 3.8, to distinguish manufacturers’ distinct responsibilities from end users of the autonomous technology. The department accepts these recommendations, and the text has been amended.

Subdivision (a)(12)(D) is amended to prohibit the manufacturer from allowing the automated driving system equipped to a vehicle owned or leased by a person other than the manufacturer to operate until available updates have been fully validated and released by the manufacturer. The department is proposing this added language to ensure that the autonomous vehicle does not operate on public roads until necessary software updates are developed, validated, and released. This supports the department's role to oversee and regulate the safe operation of autonomous vehicles on public roads.

Subdivision (a)(14) is amended in response to stakeholder comments. The revision clarifies both the meaning of a safety case and the requirement that manufacturers must provide a comprehensive description. This description must include the core safety elements outlined in Article 3.7. The amendment enhances clarity for the regulated public regarding the contents of a safety case submission and ensures the department receives safety-relevant information. In addition, subdivision (a)(14) is amended to specify that the department may consult with third-party technical experts to review a manufacturer's safety case. This aligns with the California Vehicle Code section 38750 (d)(2), which allows the department to consult with any entity that has expertise in automotive technology, automotive safety, and autonomous system design. Subdivision (a)(14) also removes the proposed requirement for manufacturers to submit a modified version of the safety case, including a summary of the modifications made, within 10 business days. The department received public comments that it is unclear what is considered a "material" change to a safety case and submitting all changes could impose burden to industry, given the technical evidence that would need to be provided to substantiate each safety claim. Description of the completed safety case shall be provided during the application process or when requested by the department through a Request for Information. The department supports these comments and is making the recommended change.

Subdivision (b) is amended to specify that this regulation applies to original and amendments, as described in Section 228.12, subdivision (b), of a Deployment Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to submit a Deployment Permit Application and provides clearer delineation of the requirements applicable at each stage of the permit lifecycle.

Subdivision (b)(1) is amended to align with the term 'remote operations support' provided in Article 3.7.

Subdivision (b)(1)(D) is amended in response to stakeholder comments and clarifies the requirement for manufacturers to describe how situations will be addressed when an autonomous vehicle reaches a minimal risk condition. The revised description removes the requirement to specify response time, number of personnel, and personnel location, recognizing the dynamic nature of supporting autonomous vehicles across various operational design domains. The department retains the authority to request specific information regarding vehicle immobilizations and retrievals through the Request for Information process.

Subdivision (b)(1)(F) is amended to align requirements for in-vehicle visual indicators with statutory requirements set forth in the California Vehicle Code section 38750 (c)(1)(B), in response to stakeholder comments regarding concerns with the department proposing to establish vehicle equipment and design mandates, which falls under NHTSA's regulatory authority, and establishing new requirements that do not align with statutory language set forth in the California Vehicle Code section 38750 can unintentionally impede innovation. The department accepts these recommendations, and the text has been amended.

Subdivision (c) is amended to specify that this regulation applies to original and amendments, as described in Section 228.12, subdivision (b), of a Deployment Permit. This addresses concerns from manufacturers for enhanced clarity on the specific requirements to submit a Deployment Permit Application and provides clearer delineation of the requirements applicable at each stage of the permit lifecycle.

Subdivision (c)(1) is amended to align with the definition of 'end user' provided in Article 3.7, removing the reference to persons other than the manufacturer and replacing it with 'end user' to clarify who manufacturers must provide an end user education plan for. The department received a recommendation to define this term—already referenced in Article 3.8—in order to distinguish manufacturers' responsibilities from those of end users of autonomous technology. The department accepts these recommendations, and the text has been amended.

Subdivision (c)(1)(B) is amended to align with the definition of 'end user' provided in Article 3.7. The amendment removes references to operator, registered owner, and lessee and replacing with end user, to distinguish the responsibilities and obligations of the manufacturer from the end user regarding the operation of autonomous vehicles. The department received stakeholder

comments to distinguish manufacturers' distinct responsibilities from end users that use the autonomous technology for transportation.

Subdivision (c)(1)(C)(iii) is adopted in response to stakeholder comments. A manufacturer selling an autonomous vehicle for end-user use may not be aware of a salvage condition noted on the vehicle's registration record, making compliance with the proposed regulation difficult to enforce. To address this, the department has added Section 228.08(c)(1)(C)(iii), which requires manufacturers to explain to the end user how the ADS will function if any sensors are damaged in a way that could degrade performance, and to provide guidance on how to remediate such issues.

Former subdivision (c)(1)(C)(iii) is renumbered to (c)(1)(C)(iv) and is amended to align with the definition of 'end user' provided in Article 3.7.

Subdivision (c)(1)(E) is amended in response to stakeholder comments and removes redundancies for improved clarity. An autonomous vehicle is also defined as a vehicle equipped with an automated driving system service. The amendment also clarifies that the use of an autonomous vehicle is contingent upon the manufacturer maintaining a valid and applicable authorization. A manufacturer may hold a valid permit that covers multiple operational design domains.

Subdivision (c)(1)(F) is amended to reflect an update from Section 227.42 (h) to Section 227.42 (i).

Subdivision (c)(2) is amended based on stakeholder comments to clarify the manufacturer's obligations when a non-manufacturer acquires an autonomous vehicle and reflect an update from Section 227.42 (h)(4) to Section 227.42 (i)(4).

Subdivision (c)(3) is amended to clarify the requirement for manufacturers to describe how an autonomous vehicle can safely come to a controlled stop in the event of an automated driving system failure. The terms 'automated driving system' and 'autonomous vehicle' are defined in Article 3.7.

Subdivision (c)(3)(B) is amended to reflect a non-substantive grammatical change.

Subdivision (c)(4) is amended to reflect an update from Section 227.42 (h) to Section 227.42 (i).

Subdivision (c)(5) is amended to clarify that information relevant to first responders regarding SAE International's J3016 Level 3 systems must be made available through a publicly accessible website to ensure ease of access.

Subdivision (c)(5)(A) is amended to align requirements for in-vehicle visual indicators with statutory requirements set forth in the California Vehicle Code section 38750 (c)(1)(B). The department received many stakeholder comments on concerns regarding the department proposing to establish vehicle equipment and design mandates, which falls under NHTSA's regulatory authority, and establishing new requirements that do not align with statutory language set forth in the California Vehicle Code section 38750 can unintentionally impede innovation. The department accepts these recommendations, and the text has been amended.

Subdivision (c)(9) is amended based on stakeholder comments to clarify that manufacturers must comply with applicable hours-of-service requirements. In the case of a driverless vehicle, these requirements apply to the remote driver and not to the automated driving system itself.

Subdivision (c)(10) is amended to specify that this regulation applies only to SAE level 4 or 5 automated driving systems equipped to light-duty vehicles. This provides added specificity on requirements associated with each SAE level of autonomy and automated driving system's technical maturity. The department received industry stakeholder comments to clarify application requirements for manufacturers to better understand how to meet compliance.

Subdivisions (c)(10)(A) through (c)(10)(D) are amended based on stakeholder comments to align with the definition of 'remote operations support' provided in Article 3.7.

Subdivision (c)(10)(E) is amended to align how manufacturers shall respond to an emergency geofencing message issued by an emergency response official with statutory requirements set forth in the California Vehicle Code section 38751 (d)(1) through (d)(4). The department received stakeholder comments addressing concerns that the proposed language is inconsistent with statute and creates requirements that go beyond emergency geofencing message requirements set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2025), thereby creating confusion on expectations for manufacturers to respond to and comply with emergency geofencing messages issued by emergency response officials and setting an avoidance area for fleet operations in a manner that complies with California statute and regulations.

Subdivision (c)(10)(G) is amended to specify that the requirement to enable emergency response officials to move the autonomous vehicle from the roadway applies if an autonomous vehicle is equipped with an override system and the requirement to train law enforcement and firefighters on how to access

and use the override system with statutory requirements set forth in the California Vehicle Code section 38751 (b)(3). The department received many stakeholder comments on concerns regarding the department proposing requirements that do not align with statutory language set forth in the California Vehicle Code section 38751 adopted by the passage of Assembly Bill 1777 (2024). Moreover, there were concerns about the ability of manufacturers of purpose-built vehicle platforms to comply with the department's proposed requirements to describe how to move the vehicle from the roadway due to having no manual driving controls in the vehicle. The department accepts these recommendations, and the text has been amended.

Subdivision (c)(10)(H) is amended to replace the reference to first responders with law enforcement and firefighters and align with statutory language set forth in the California Vehicle Code section 38751 (b)(3) based on many stakeholder comments regarding consistency between statutory and regulatory requirements.

Former Subdivisions (d) through (d)(3) are removed because manufacturers are already subject to existing California law, including inspections conducted by the California Highway Patrol.

Subdivision (e) is renumbered to subdivision (d).

§ 228.10. Review of Application.

No additional amendments are being made to Section 228.10.

§228.12. Amendment of Application.

Non-substantive changes made to subdivisions (a) and (b).

Subdivision (b)(8) is removed in response to stakeholder comments. Requiring this regulation could impose unnecessary delays on manufacturers—for example, when they make quick software updates to help first responders disengage the ADS more efficiently when needed. The department retains authority to review such changes when other material modifications are made to the permit, such as geographic expansion, or through the Request for Information process.

Subdivision (c), which is adopted in the current regulations, was unintentionally removed from the proposed draft regulatory text and is being maintained.

§228.14. Reporting Safety Defects.

Section 228.14 is amended based on stakeholder comments and clarifies that the manufacturer must submit a Part 573 defect report on the same day it is filed with the U.S. DOT NHTSA, though not necessarily at the exact same time.

§ 228.16. Conditions Related to the Term of Permit.

Non-substantive changes made to Section 228.16.

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

The Section 228.18 introductory paragraph is renumbered to subdivision (a) and to clarify that the grounds for refusal of a permit to deploy autonomous vehicles (AVs) apply not only to original deployment permit applications but also to amendment applications. This change is necessary to ensure that the department retains the authority to evaluate and, if warranted, refuse any application—original or amended—when the operation of a manufacturer’s autonomous vehicles may pose a risk to public safety. Amendment applications may include significant changes to the operational design domain, vehicle technology, safety features, or deployment strategies. These changes can materially affect the safety profile of the autonomous vehicles operating on California’s public roads. Therefore, it is essential that the department have the ability to assess whether such changes introduce new or increased risks to the public.

Subdivision (a) is renumbered to subdivision (a)(1) as it supports subdivision (a) as one of the reasons the department may refuse an Original Deployment Permit Application or a Deployment Permit Operational Parameters Amendment Application.

Subdivision (b) is renumbered to subdivision (a)(2) as it supports subdivision (a) as one of the reasons the department may refuse an Original Deployment Permit Application or a Deployment Permit Operational Parameters Amendment Application.

Subdivision (c) is renumbered to subdivision (a)(3) as it supports subdivision (a) as one of the reasons the department may refuse an Original Deployment Permit Application or a Deployment Permit Operational Parameters Amendment Application.

Subdivision (d) is renumbered to subdivision (b) to provide additional clarity that this regulation is separate from one of the reasons that the department may refuse an original or amended application for a Deployment Permit.

§ 228.20. Demand for Hearing on Refusal of Permit.

Non-substantive changes made to subdivision (a).

§ 228.22. Restriction of Autonomous Vehicles Deployment Permit.

Non-substantive changes made to subdivisions (a) and (c).

§ 228.24. Suspension, Revocation, or Restriction of Permit.

The title of Section 228.24 is amended to reflect the department's ability to impose an operational restriction.

Non-substantive changes made to subdivision (a).

Subdivision (a)(2) is adopted to include violations of Vehicle Code section 38750 as a reason the department may suspend, revoke, or restrict a Deployment Permit.

Subdivision (a)(2) is renumbered to (a)(3) and is amended to include any act or omission whereby the manufacturer or one of its agents, employees, contractors, or designees submitted incorrect or misleading in the Original Deployment Permit Application or any other submission to the department as a reason the department may suspend, revoke, or restrict a Deployment Permit.

Subdivision (a)(3) is renumbered to (a)(4).

Subdivision (a)(4) is renumbered to (a)(5) and is amended to establish the department may immediately suspend the deployment permit if an autonomous vehicle, that is classified as a commercial motor vehicle, is placed on the list of Out-of-Service Orders by the Federal Motor Carrier Safety Administration for any of the reasons defined in Title 49, Code of Federal Regulations, Parts 385.13, 386.72, and 386.83. This requirement aligns with sanctions that are imposed on commercial motor vehicles when placed out of service by the Federal Motor Carrier Safety Administration and ensures traffic safety.

Subdivision (a)(5) is renumbered to (a)(6).

Subdivision (a)(6) is renumbered to (a)(7) and non-substantive grammatical change made to subdivision (a)(7).

Subdivision (a)(8) is adopted to establish that the department may immediately suspend the deployment permit if the Motor Carrier of Property Permit associated with an autonomous vehicle, that is classified as a commercial motor vehicle, has been suspended by the department for any of the reasons defined in Vehicle Code Division 14.85. This requirement aligns with motor carrier permit

sanctions imposed on commercial motor vehicles by the department and ensures traffic safety.

Subdivisions (a)(9) and (b)(8) are adopted in response to stakeholder comments. It relates to the AV medium-duty passenger service exemption and specifies that the department may issue a suspension, revocation, or restriction based on a directive from the Federal Transit Administration. The provision is intended to ensure the safe operation of autonomous vehicles on public roads.

Subdivision (a)(10) is adopted to establish the department may immediately suspend the deployment permit if the manufacturer fails to comply with any of the provisions of this article related to the deployment of autonomous vehicles.

Non-substantive changes made to subdivisions (b) and (b)(2).

Subdivision (b)(8) is renumbered to (b)(9).

Subdivision (c) is amended to specify that the department shall lift any associated operational restriction, pursuant to the manufacturer satisfactorily addressing the deficiencies that led to the suspension, revocation, or restriction. Manufacturers expressed concerns that there is a clear regulatory pathway to become operational after submitting evidence that demonstrates they have remediated the deficiencies that led to or caused the department to invoke the operational restriction, suspension, or revocation.

Non-substantive changes made to subdivision (d).

§ 228.26. Administrative Procedures for a Suspension, Revocation, or Restriction of Permit.

The title of Section 228.26 is amended to include the department's ability to impose an operational restriction.

A non-substantive grammatical change has been made to subdivision (a) (2).

§ 228.28. Information Privacy.

Subdivision (b) is amended to remove references to the customer, registered owner, and lessee, replacing with "end user", to clarify this refers to collection of personal information of persons that are using the vehicle for transportation services and not the manufacturer. The department received comments to define this term, which is already referenced in Article 3.8, to distinguish manufacturers' distinct responsibilities from end users of the autonomous technology. The department accepts the recommendations, and the text has been amended.

§ 228.30. Registration of Autonomous Vehicles.

Subdivision (c) is removed in response to stakeholder comments. A manufacturer selling an autonomous vehicle for end-user use may not be aware of a salvage condition noted on the vehicle's registration record, making compliance with the proposed regulation difficult to enforce. To address this, the department has adopted Section 228.08 (c)(1)(C)(iii), which requires manufacturers to explain to the end user how the ADS will function if any sensors are damaged in a way that could degrade performance, and to provide guidance on how to remediate such issues.

Non-substantive changes made to subdivision (d).

§ 228.32. Statements About Autonomous Technology.

No additional amendments are being made to Section 228.32.

§ 228.34. Reporting Collisions.

Section 228.34 is amended to specify that only crashes occurring within the State of California are reportable and reference the current revision date (June 2025) of NHTSA's Standing General Order. This addresses industry comments that the prior proposed language is ambiguous and unclear regarding which crash reports manufacturers are expected to send, whether all that are submitted to NHTSA or limited to those that occurred within California. Manufacturers indicated that they should not be required to submit out-of-state crash reports, which they stated would be overly burdensome, resource intensive, and does not provide any safety relevance. In addition, the department received comments to update the referenced version of NHTSA's Standing General Order to the most current. The manufacturer shall submit the report electronically in .csv format via the department's web portal. In addition, section 228.34 references the electronic Collision Reporting Template, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on collision reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required collision data and references NHTSA's SGO data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (a) is amended to align with NHTSA's Standing General Order collision reporting requirements and allow manufacturers to electronically submit a Report of Traffic Collision Involving an Autonomous Vehicle, form OL 316 (Rev. 7/2020) through the department's web page or portal. Stakeholders provided comments demonstrating support towards nonduplicative collision reporting requirements. Therefore, the department is adding language to align with 1-day, 5-day, and 30-day federal crash reporting requirements. In addition, unanimously manufacturers support the department's transition to automating data reporting and establishing an online portal for intake of collision data.

Subdivision (b) is amended to provide additional clarity on the type of safety-relevant supplemental information the department may request in its review and investigation of a collision. This addresses stakeholder concerns on lack of regulatory clarity on the type of information that shall be provided upon request by the department.

Subdivision (c) is adopted pursuant to Vehicle Code 38750 and requires that an autonomous vehicle has a separate mechanism, in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object, or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. The data shall be preserved for three years after the date of the collision. This regulation is adopted to align with the vehicle code and ensures the safe operation of autonomous test vehicles on public roads.

Subdivision (d) is adopted to establish requirements if there is no collision to report during the reporting period.

§ 228.36. Reporting Vehicle Immobilizations.

Subdivision (a) is amended in response to stakeholder comments. It clarifies that the reporting requirements apply to SAE Level 4 and 5 autonomous vehicles and aligns the reporting elements with Section 227.58 (b) to ensure consistency in data collection. Additionally, the reporting requirement is updated from a monthly basis on the fifteenth day to a quarterly basis on or after the thirtieth day following the end of the quarter, the report shall be submitted using the electronic Vehicle Immobilization Reporting Template provided by the department, which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide

additional clarity to the regulated public on data reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. The manufacturer shall submit the report electronically in .csv format via the department's web portal. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations. In addition, subdivision (a) is amended to establish requirements if there is no vehicle immobilization to report during the reporting period. Subdivision (a) also specifies that manufacturers of privately owned vehicles intended for non-commercial use must report each immobilization. However, to protect user privacy, these manufacturers are not required to report the precise date and time of the event, vehicle identification number, or the geographic coordinates. The department received feedback from stakeholders regarding considerations for privately owned vehicles.

Subdivision (b) is amended to specify that this regulation aligns with Section 227.58 (b) to ensure consistency in data collection.

Subdivision (b)(1) through (b)(5) are removed to align reporting elements already described in Article 3.7 to ensure consistency in data reporting.

§ 228.38. Reporting Dynamic Driving Task Performance Relevant System Failures.

Subdivision (a) is amended in response to stakeholder comments. It clarifies that the reporting requirements apply to SAE Level 3 autonomous vehicles and aligns the reporting elements with Section 227.56 (c) to ensure consistency in data reporting. In addition, subdivision (a) specifies that manufacturers of privately owned vehicles intended for non-commercial use must report each dynamic driving task performance relevant system failure. However, to protect user privacy, these manufacturers are not required to report the precise date and time of the event, the geographic coordinates, or the vehicle identification number. This regulation is amended based on stakeholder feedback regarding considerations for privately owned vehicles.

Subdivisions (b) and (b)(1) through (b)(6) are removed to align reporting elements already described in Article 3.7 to ensure consistency in data reporting.

Subdivision (b) is adopted to require that every manufacturer with an authorized Deployment Permit, form OL 321A, shall prepare and submit to the department

a quarterly report summarizing occurrences of dynamic driving task performance relevant system failures. Quarterly reports shall be submitted by the first business day on or after the thirtieth day following the end of the quarter. Reports are required on a quarterly basis, reflecting the manufacturer's transition from testing to commercial deployment. In the event there is no dynamic driving task performance relevant system failure that occurred during the reporting period, the manufacturer shall report such to the department.

Subdivision (c) is added to require the report shall include requirements described in section 227.56 (c) of Article 3.7. The report shall be submitted using the electronic Dynamic Driving Task Performance Relevant System Failure Reporting Template provided by the department and will be accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on braking event reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and measurement units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's oversight, regulation, and enforcement of autonomous vehicle operations.

§ 228.40. Reporting Vehicle Miles Traveled

Section 228.40 is adopted to clarify the reporting requirements for autonomous vehicle miles traveled operating on public roads. Every manufacturer with an authorized Deployment Permit shall prepare and submit to the department a quarterly report summarizing total number of vehicle miles traveled while operating on public roads. Quarterly reports shall be submitted by the first business day on or after the thirtieth day following the end of the quarter. The manufacturer shall submit the report electronically in .csv format via the department's web portal. The report shall be submitted using the electronic Vehicle Miles Traveled Reporting Template provided by the department. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on mileage reporting requirements, including reporting timeframe, deadline, and format. This reporting template creates a standard, structured format for manufacturers to submit required mileage data and will include a data dictionary that describes the required data elements in detail, including data format, field names, and units. This will improve standardization and streamline the application process and enhance the consistency, quality, and reliability of the data to support the department's

oversight, regulation, and enforcement of autonomous vehicle operations. In addition, subdivision (a) is adopted to establish requirements if there is no mileage to report during the reporting period.

§ 228.42. Notice of Autonomous Vehicle Noncompliance.

Section 228.40 is renumbered to Section 228.42.

The Notice of Autonomous Vehicle Noncompliance form referenced in subdivision (a) has been updated to provide officers with additional guidance on reporting the location of an incident. Officers will be required to include both the roadway where the incident occurred and the GPS coordinates. In Section 3, the term "Fall Back Ready User" has been changed to "Human Driver" to use clearer and more straightforward language for the officer. In Section 5, the phrase "Not present in the vehicle" has been revised to "No Human Driver" to improve clarity and better indicate that no human driver is present in the vehicle. These amendments will help the department more accurately determine the precise location of each incident and assist officers in capturing relevant details, which will support the department's review process.

Subdivisions (b) and (e) are amended to require both the manufacturer and peace officer to submit the contents of the form (e.g., digitally) to the department within 72 hours of receipt or 24 hours of receipt, if a priority review is marked on the form. The California Vehicle Code section 38752 requires the manufacturer to submit the form to the department. Manufacturers submitted comments to the department addressing concerns that reporting timeframe to send Notices to the department within 24-hours/72-hours of issuance does not consider situations where it may take more time for manufacturers to receive Notice due to no previously defined process for issuing/receiving Notices, for example, when the Notice is mailed by law enforcement. Industry widely supports that the timeline to submit Notices of AV Noncompliance be based on receipt instead of issuance. The manufacturer shall submit the form electronically via the department's web page or portal. In addition, subdivision (b) references the electronic Notice of Autonomous Vehicle Noncompliance Reporting Template (Rev. 12/2025), which the department will make accessible to manufacturers online. This reporting template will serve as a centralized repository to provide additional clarity to the regulated public on required data to submit to the department from the Notice of Vehicle Noncompliance, form OL 325. This reporting template creates a standard, structured format for manufacturers to submit required data and will include a data dictionary that describes the required data elements. This will improve standardization and enhance the consistency, quality, and reliability of the data to support the

department's oversight, regulation, and enforcement of autonomous vehicle operations.

Subdivision (c) is adopted to specify the placement of the form within the vehicle. Manufacturers submitted comments to the department addressing concerns on no defined, clear, standardized process for issuing/receiving Notices. Manufacturers provided that regulatory uncertainty and ambiguity on the transmission process could lead to inefficiencies or other issues with meeting compliance requirements. In response to public comments, the department is proposing that the form will be placed in the designated location registration, insurance, and permit information, which must be accessible to law enforcement, will be stored, as identified in the manufacturer's first responder interaction plan. The peace officer may also give the notice to the manufacturer's designee arriving at the scene of the incident. Subdivision (c) is also adopted to require the peace officer conducting the traffic stop to state their name and department and follow provisions of the California Vehicle Code section 2806.5, which addresses concerns from stakeholders regarding identification of the peace officer.

Subdivision (d) is adopted to specify that law enforcement can also mail the form to the manufacturer's address as listed in the first responder interaction plan within 72 hours of the incident in the event the notice is issued in circumstances other than a traffic stop. This satisfies the existing gap that in the event there is not a traffic stop, law enforcement would mail the form to the manufacturer directly using the address provided in the first responder interaction plan and provide a copy to the department.

Subdivision (c) is renumbered to subdivision (e).

Subdivision (d) is renumbered to (f).

Subdivision (f)(3) is amended to specify reporting of the date of the alleged violation in YYYY-MM-DD format.

Subdivision (e) is renumbered to (g) and is amended to remove the term "host," replacing with "subject." This is a non-substantive change that provides greater clarity when referring to the autonomous vehicle.

Subdivision (f) is removed as it is deemed duplicative and therefore unnecessary. Enforcement authority is already addressed in Sections 228.22 and 228.24.

Subdivision (g) is renumbered to (h). Non-substantive grammatical changes to subdivision (h).

§ 228.44. Preliminary Information Notice.

Section 228.42 is renumbered to Section 228.44.

Subdivision (a) is amended to specify a manufacturer's response to a Preliminary Information Notice shall make a good faith effort within a reasonable time that is informed by the nature of the issue underlying the Notice and the scope of the Notice. This removes proposed requirements that prescribe a specific timeframe for manufacturers to respond to the Notice. This change addresses manufacturer comments that the proposed timeframe to respond to the Notice is unreasonably insufficient for manufacturers to fully investigate the incident and provide the department with the requested information. The department will exercise its broad authority to require manufacturers to make a good faith effort to respond, rather than imposing a default 72-hour deadline. A good faith effort includes being timely, cooperative, and diligent in providing relevant facts or documents related to an incident. The department retains the authority to shorten response times based on the circumstances and severity of the incident. This will allow the department to receive quicker turnaround for incidents that pose an imminent hazard to public safety.

Non-substantive changes to subdivisions (a)(2) and (a)(5).

Subdivision (a)(6) is amended to include instances that necessitate a preliminary information report and represent incidents that may pose an unreasonable risk of accident, injury or death. This regulation is necessary for the safe operation of autonomous vehicles on public roads.

§ 228.46. Request for Information.

Section 228.44 is renumbered to Section 228.46.

Subdivision (a) is amended to specify a manufacturer's response to a Request for Information shall make a good faith effort within a reasonable time that is informed by the nature of the issue underlying the Request and the scope of the Request. This removes proposed requirements that prescribe a specific timeframe for manufacturers to respond to the Request. This change addresses manufacturer comments that the proposed timeframe to respond to the Request is unreasonably insufficient for manufacturers to fully investigate the incident and provide the department with the requested information. The department will exercise its broad authority to require manufacturers to make a good faith effort to respond, rather than imposing a default 10-day deadline. A good faith effort includes being timely, cooperative, and diligent in providing relevant facts or documents related to an incident.

Non-substantive changes to subdivision (a)(2).

Subdivision (a)(4) is adopted to provide additional clarity on the type of safety-relevant supplemental information the department may request in its review and investigation of an incident. This addresses stakeholder concerns on lack of regulatory clarity on the type of information that shall be provided upon request by the department.

Subdivisions (a)(4) through (a)(12) are removed due to comments from the autonomous vehicle industry that due to the department's enforcement authority leveraged by a Request for Information, the incidents which precipitate the department's investigation should be substantiated reports, such as operation that violates the California Vehicle Code, poses an unreasonable risk of accident, death, injury, or exacerbating injury, or does not comply with operational parameters approved in the authorized permit.