



Transmitted Electronically via LADRegulations@dmv.ca.gov

June 9, 2025

Director Steve Gordon
California Department of Motor Vehicles
Autonomous Vehicles Branch
2415 1st Ave, MS D405
Sacramento, CA 95818

Re: Proposed Regulations for Autonomous Vehicle Testing and Deployment

Dear Director Gordon:

The Alliance for Automotive Innovation (Auto Innovators) appreciates the opportunity to submit formal comments regarding the California Department of Motor Vehicles (“DMV” or “Department”) proposed regulations for autonomous vehicle (AV) testing and deployment. These comments, which supplement those we submitted in response to the Department’s September 2024 informal draft regulations, are offered to ensure efficient regulatory oversight and industry compliance, support the competitiveness of the U.S. AV industry, and most importantly, improve California’s traffic safety outcomes.

Auto Innovators represents the full auto industry, including the manufacturers producing most vehicles sold in the U.S., equipment suppliers, battery producers, semiconductor makers, technology companies, and autonomous vehicle developers. Our mission is to work with policymakers to realize a cleaner, safer, and smarter transportation future and to maintain U.S. competitiveness in cutting-edge automotive technology. Representing approximately 5 percent of the country’s GDP, responsible for supporting nearly 10 million jobs, and driving \$1 trillion in annual economic activity, the automotive industry is the nation’s largest manufacturing sector.

We share the Department’s commitment to maintaining a regulatory environment that prioritizes roadway safety for all users. However, we continue to be concerned that the proposed regulations will introduce regulatory complexities and uncertainty that could upend California’s leadership in the AV industry, hamper innovation, and have the unintended consequence of reducing safety. While we appreciate the areas in which the Department addressed industry feedback, we are concerned that the proposed rule remains burdensome from a reporting and equipment perspective; lacks clarity about how companies will meet the Department’s compliance expectations; and overlooks the unique regulatory considerations for Level 3 and personally owned ADS-equipped vehicles.

Recognizing that these regulations will guide the AV industry for years to come, it is imperative that they are durable and adequately account for all business models. First and foremost, we remain concerned that the proposed regulatory framework does not adequately account for Level 3 technologies or the concept of private ownership, as the reporting requirements and the privacy risks would be untenable for private owners under this framework. We continue to urge the Department to tailor these regulations to account for privately-owned Level 3 and Level 4 ADS-equipped vehicles.

As noted in our previous comments, if finalized as written, the proposed regulations would: (1) fail to adequately account for privately owned Level 3 and Level 4 vehicles; (2) create impracticable and subjective reporting requirements that offer limited safety benefits while increasing consumer privacy risks; (3) require vehicle equipment modifications that would be costly and may conflict with existing standards; (4) create burdensome and challenging procedures for engaging with, and training, first responders; (5) pose inadvertent risks to confidential business information (CBI) and individual privacy; and (6) lead to misalignment with consensus standards promulgated by the federal government and industry. Lastly, we offer feedback on potential definitional clarifications and logistical considerations.

We support the Department's efforts to update California's AV regulations and appreciate the additional opportunity to provide feedback. To assist with the Department's rulemaking process, we have summarized our concerns below regarding proposed Articles 3.7 and 3.8. We are available as a resource should you wish to meet with us or our members. Thank you again for your work on this important issue. Please do not hesitate to reach out with any questions or concerns.

Sincerely,



Lindsay M. Abate
Director, Technology Policy
Alliance for Automotive Innovation

Overview of Concerns and Recommendations

1. We urge the Department to address the unique considerations associated with personally owned Level 3 and Level 4 vehicles.

As noted previously, we are very concerned that the Department is not adequately considering and accounting for the use of personally owned Level 3 and Level 4 vehicles in California. We recognize the effort the Department has taken by creating a distinction between “drivered” and “driverless” permits, but we urge the Department to further tailor regulatory requirements for all personally owned Level 3 and Level 4 vehicles. Below are four areas that should be better aligned to accommodate private ownership:

- The proposed deployment application and some reporting requirements would be untenable for privately owned vehicles, as they would raise significant privacy risks and would be both burdensome and difficult to navigate from a technical perspective. We request that the Department clarify that private individuals who own Level 3 or Level 4 vehicles do not have any reporting obligations under these regulations.
- First responder interaction requirements also fail to account for the distinction between drivered and driverless vehicles. The Department should clarify that drivered ADS-equipped vehicles are exempt from these requirements. In particular, as noted throughout our comments, vehicles that have a driver present do not need to have a dedicated emergency response line, a two-way communication device, remote operations personnel, the ability to receive and respond to emergency geofencing, or the ability to override or immobilize vehicle operation.
- Avoidance area and geofencing restrictions could prevent private individuals who are using personally owned Level 3 or Level 4 vehicles, or who are passengers of a rideshare service, from accessing their homes or businesses for an undefined period and geographic region. This would create accessibility issues for individuals with limited mobility and generally inconvenience residents in a way that would not be the case for conventional vehicles. We ask that the Department revise these requirements to accommodate private individuals who will need to continue accessing their homes or workplaces.
- With respect to the salvage requirements in § 228.30 (c), if an owner of a Level 3 vehicle elects to subscribe to a Level 3 service after a vehicle has been designated as salvage, it is unclear how a manufacturer would know the salvage status in order to inhibit activating the Level 3 service on that vehicle. While the ADS is capable of diagnosing the presence and health status of its hardware and software components and the base vehicle is capable of diagnosing systems that have electronic controllers, we believe it is the vehicle owner’s

responsibility to ensure the fitness of the vehicle's mechanical systems, such as its structural integrity, brake pads, and steering mechanisms. We recommend exempting personally owned vehicles from § 228.30 (c).

2. The Department should reassess its proposal to expand the scope and volume of data reported.

The proposed regulations would dramatically expand the scope of data reported with respect to disengagements, immobilizations, braking, collisions, software development, safety governance, and staffing. While we agree that the DMV should have access to the data necessary to assess and enforce safety and compliance, we question the value of the expanded scope of data required as part of this revised regulatory framework, much of which is overly broad, burdensome, and in some cases, subjective.

Both the volume and content of the data required raises serious compliance and CBI concerns for our members. We are concerned about the validity of some data elements, such as disengagements so broadly defined, for assessing safety and program compliance, in addition to the significant cost to implement the manual review necessary for accurate reporting. It is also unclear whether these reporting elements are required for testing and deployment that take place on all roads, or only on California roads, raising potential questions about the implicit reach of California's regulations. Finally, we have continued concerns about whether the Department has adequate resources to analyze, and act upon, such a high volume of data. We therefore recommend that the Department reconsider and revise, as appropriate, the following requirements:

- ***Disengagement reporting***

- Disengagements have long been criticized as an invalid metric by academics, manufacturers, industry analysts, and journalists. We continue to oppose the requirement to report such expansive disengagement data, with increased frequency, to the Department. Disengagements are defined very broadly, and the requirement would generate large amounts of data—components of which would be difficult to provide in a scalable, automated fashion—without a commensurate benefit. We therefore recommend that disengagement reporting be removed from the regulations.
- Reporting should be based on a threshold of materiality that is either tied to safety risk or a failure of the system or the operational design domain (ODD). As currently proposed, disengagement data would encompass a variety of situations that are unrelated to system behavior or safety. In addition, requiring such broad reporting could disincentivize safety operators from taking over unless they are positive it is

necessary, which is antithetical to safe public road testing. Given the ambiguity, the current requirements could be interpreted to incorporate:

- Operational takeovers, including shift changes, breaks, changing drivers, moving to a new test area, or data storage reaching capacity.
 - Intended takeovers, including ODD exits with the vehicle requesting attention or another takeover per design. It is unclear if these would meet the exclusions for a "planned test" or geographical boundary exits. 227.56(a) provides that "any expected disengagements associated with . . . reaching a geographical boundary of the operational design domain" would be excluded from reporting. But then, 227.56(a)(1)(C) provides that a disengagement would include a deactivation to avoid operating outside of the operational design domain of the automated driving system. These two provisions appear to be in direct conflict; we therefore request clarification from the Department.
 - Accidental takeovers, including if the autonomous vehicle test driver applies too much torque on the wheel or taps the brakes mistakenly.
- Disengagement reporting is not appropriate for Level 3 vehicles, considering the more limited ODD and the presence of a fallback-ready user. For example, a system-initiated handoff to the fallback-ready user should be excluded from the definition of "disengagement." Also, during testing of Level 3 vehicles, the safety driver will play a more significant role in keeping the system within the ODD.
 - As demonstrated above, the sheer volume of disengagement data reported would detract from other, higher value data that could reveal actual safety issues. Moreover, disengagement data are not standardized across the industry; thus, there is limited insight that can be gleaned by comparing these data across permit holders. Finally, reporting such data cannot easily be automated due to the requirement to provide detailed descriptions, including primary and secondary causes and post-disengagement actions taken by an operator, that rely on analysis and verification of each. These would likely necessitate conducting operator interviews. Therefore, we urge DMV to remove disengagement reporting requirements and focus on working with manufacturers to implement the other data requirements in these regulations that may provide more useful information from a safety oversight perspective.

- ***Vehicle immobilization reporting***

- We are concerned about the addition of vehicle immobilization reporting in § 228.36. It appears that this requirement is modeled on [Assembly Bill 3061](#), which was vetoed by Governor Newsom. Currently, the definition of “immobilizations” refers to a stop in an active travel lane. However, if all in-lane stops for achieving a Minimal Risk Condition (MRC) in Level 3 vehicles are classified as immobilizations, it could impose a significant reporting burden on manufacturers and would be untenable for private owners of such vehicles. We request that the Department clarify that immobilizations must only be reported for instances where a vehicle is stopped in a travel lane due to the ADS *and* traffic is blocked. In addition, immobilization reporting requirements for AV testing in § 227.58 are limited to driverless vehicles; we recommend that immobilization reporting in §228.36 for deployment be similarly limited to driverless vehicles.

- ***Braking event reporting***

- We appreciate the Department taking industry concerns into account when developing hard limits for braking events, however, we remain concerned about the extent of the data required for testing and deployment activities. The triggers for reporting may be technologically difficult to implement. The extensive information required for each event for a 12-month period is also problematic. We therefore encourage the Department to consider the following recommendations with respect to braking event reporting. If manufacturers must report on braking events in the testing phase, we would request a refinement to the trigger for the reporting of braking events as specified in § 227.64. The Department should consider adopting the following definition:
 - “...braking event equal to or exceeding 0.5g where a drop in speed of 7mph occurs in any one (1) second window [within the one (1) second prior to the peak and the one (1) second following the peak], during the operation of an autonomous vehicle in autonomous mode on public roads.”
- In addition, certain systems may not have automated triggers and data pipelines to capture braking events. DMV should consider giving manufacturers lead time (e.g., 6 months) to implement means to accurately identify and track these events. Developing means to accurately track these events will take significant effort.
- The requirement in § 228.08 to report 12 months of braking events as part of an application for a deployment permit is also concerning. In particular, the provision requiring “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” would be prohibitively burdensome. We recommend that the timeframe be limited to a six-month period.

- ***Collision reporting***

- We are concerned about the proposed timing and content required for collision reporting. For example, § 228.08(a)(1)(C) requires 12 months of collision data including "a full description of the cause of each collision and measures taken to remediate the cause of each collision where applicable" for deployment. This is extremely burdensome and involves significant risk, as it requires manufacturers to assign fault and conduct a subjective analysis. As an alternative, we encourage the Department to leverage data reported to the National Highway Traffic Safety Administration (NHTSA) under the Standing General Order (SGO), which provides a written description of the pre-crash, crash, and post-crash scene.
- The new requirement in § 227.54 that the manufacturer must certify that the AV has a “separate mechanism” to capture and store the autonomous technology sensor data for at least 30 seconds before the collision occurs between the AV and another vehicle, object, or natural person while operating in autonomous mode is concerning. The requirement to preserve sensor data for three years after a collision is also impractical, especially for customer-owned vehicles where the manufacturer may not have access to the data. We encourage the Department to reconsider these provisions.
- As currently proposed, if the SGO is repealed or expires, the current requirement to report fatal or injury-related accidents within 5 days would be shortened to 24 hours. It is not clear why the Department needs these data within 24 hours when NHTSA is requesting the data within 5 days. In addition, abruptly switching to a 24-hour reporting period could create compliance challenges for manufacturers. As we emphasize below, we urge the Department to align reporting and timing requirements with NHTSA’s Third Amended SGO to the greatest extent possible (e.g., substance, format, and timing/cadence).

- ***Safety case submissions and certifications***

- We encourage the Department to temper its approach to the safety case requirement. We recognize the Department’s recent changes to more clearly define the elements of the safety case in § 227.02 but remain concerned that the safety case requirements appear to be too broad to be actionable for either industry participants or the

Department, and could benefit from additional clarity. We are also concerned that the current requirements would create CBI risks.

- We recommend that the Department focus on requirements that would support a holistic and nuanced understanding of each company's approach to safety and its Safety Management System (SMS). If the Department deems a safety case to be necessary, it should require companies to certify that they have prepared a safety case and have adequate evidence to substantiate their claims. The Department should also be clear about the level of detail required to meet the Department's expectations.
- We are also concerned that, under § 227.02, a non-exhaustive "summary of core safety information elements" would be required. It seems plausible that the Department may deny a permit for the inability to provide content which is not clearly or explicitly defined in the regulations. We urge the Department to revise this provision.
- As noted in our previous comments, the proposed regulations also lack clarity as to which safety case modifications would need to be reported to the Department for a manufacturer and developer to remain in compliance with the regulations. We request clarification on this issue.
- § 227.28(d) currently requires the submission of a *complete* safety case as part of the application for a Drivered Testing Permit. However, the primary purpose of drivered testing is to verify the complete safety case that would ultimately support a future deployment application. During the testing phase, safe vehicle operation is the responsibility of the test driver, as addressed in § 227.32, § 227.34, and § 227.36. If the Department determines that a safety case is necessary, it would be more appropriate to require a *complete* safety case at the deployment stage rather than during initial testing, where such a requirement would be unnecessarily burdensome.

- ***Reporting software versions***

- Multiple provisions within the regulations require companies to disclose the software version of the automated driving system with which a vehicle is equipped, particularly in the testing phase where software updates are expected to occur frequently. We question the utility of this information to the Department, and are concerned that these requirements could lead to the inadvertent disclosure of CBI associated with the cadence of software releases. In addition, some of these requirements do not accurately reflect companies' processes for implementing software updates and system improvements. Software may be updated very frequently, especially during testing, making it impractical to require that all software versions be reported to the DMV. In

addition, if the Department has a concern with the safety of the system, it can solicit this information via its information request mechanisms.

- ***Leveraging Federal data and streamlining reporting requirements***

- We support any efforts to leverage data that companies are already collecting and reporting to NHTSA under the SGO. The Department should harmonize, to the greatest extent possible, the data that are collected and reported, the forms that are used, and the timelines for submitting such data. We noted a few areas that could benefit from further clarification and harmonization:
 - The proposed regulations currently incorporate by reference the Second Amended Standing General Order 2021-01 from May 2023. The regulations should instead incorporate and cite the [Third Amended Standing General Order](#), which was published in April 2025 and will take effect on June 16, 2025.
 - The timelines for reporting should mirror the timelines in the Third Amended SGO.
 - As noted above, if the NHTSA SGO is repealed or expires, the current requirement to report fatal or injury-related crashes within 5 days would be shortened to 24 hours. Abruptly switching to a 24-hour period could create compliance challenges for manufacturers. We urge the Department to provide regulatory certainty by maintaining SGO reporting timelines even in the absence of the SGO.
- For reporting that is unique to the DMV, we ask that the Department institute reasonable reporting periods. Of particular concern—the Department is proposing to require monthly, rather than annual, reports on disengagements, immobilizations, and autonomous miles driven, which would create significant compliance challenges. A quarterly cadence for ongoing reporting requirements would be more reasonable, would align with the existing California Public Utilities Commission (CPUC) reporting cadence, and would still provide rolling data without creating untenable reporting obligations for industry participants. In addition, companies should only be required to report data pertaining to their activities in California.

3. We urge the Department to align vehicle equipment requirements with existing standards.

As expressed in our previous comments, Auto Innovators supports national or international standards for vehicle equipment. Instead, the Department is proposing multiple state-level requirements for vehicle equipment, namely a two-way communication link and an autonomous mode indicator. While we understand that some of these requirements stem from AB 1777, we continue to underscore how difficult it is for industry to manufacture vehicles with different equipment requirements for every state in which they operate. While Auto Innovators acknowledges the potential benefit of equipping driverless vehicles with a microphone to enable direct communication with first responders and an indicator to identify the vehicle's operating status, we believe that safety and efficiency benefits will not be realized unless this equipment is standardized across jurisdictions. Further, vehicles that always have a physical driver present do not require exclusive equipment to communicate with emergency responders. For these reasons, we ask that the Department decline to mandate vehicle equipment beyond what is required at the Federal level or in California [Assembly Bill 1777](#).

- ***Communication link***

- Previously, only driverless vehicles were required to have a two-way communication link for interaction with passengers inside the vehicle. However, under the recent revisions to §227.42 and §228.08, an additional requirement has been introduced for a “two-way voice communication device” intended for communication with emergency response officials outside the vehicle. As noted above, we urge the Department to return to only requiring the communication link for driverless vehicles, as was approved by the legislature in AB 1777.

- ***Autonomous mode indicator***

- § 227.42 and § 228.08 require vehicles to be equipped with “an indicator *inside* the cabin that is visible and interpretable to first responders and identifies when the vehicle is operating in autonomous mode, when the vehicle is operating in conventional mode, and when the vehicle will remain stopped.” For the reasons below, we oppose this overly prescriptive requirement, and instead encourage the Department to provide additional clarity and allow maximum flexibility for conveying this information.
 - First, it is unclear why the Department is mandating that the indicator be located *inside* of the cabin, rather than on the outside, where it would be more visible to first responders and other road users. This requirement is overly prescriptive, inconsistent with standards recommended by SAE International, and may be incompatible with some vehicle designs. For example, vehicles

that were designed and are incapable of carrying people may not have an interior “cabin,” including one that can be viewed by an emergency responder from outside the vehicle. In addition, some manufacturers favor the use of an external turquoise light, which is recommended by SAE International (J3134), to indicate autonomous mode.

- Second, the term “interpretable to first responders” is ambiguous and may be subjective. It is unclear how companies will be able to ensure that equipment is adequately interpretable. The Department should provide additional clarity.
- Rather than requiring a specific placement or style of indicator, maximum flexibility should be permitted. This will help address potential compatibility issues across jurisdictions, will allow companies to innovate based on their vehicle design and purpose, and will enable standards-setting organizations to continue building consensus within the industry.

- ***Override system***

- § 227.42 and § 228.08 require vehicles to be equipped with “an override system that allows law enforcement and firefighters to immobilize or cause the vehicles to move as necessary to address an emergency.” The existence of a manual override system is also alluded to in a number of areas throughout § 227.38 and § 227.42. This proposed requirement is not aligned with the language or intent of AB 1777 and the resulting California Vehicle Code § 38751, which did not create a design requirement but instead an if/then obligation – namely, only if an AV is equipped with a manual override system, then it should be made available to first responders. Autonomous vehicle manufacturers designing vehicles exclusively for autonomous driving would be restricted from operations in California under the proposed requirements, and the override system would only introduce significant safety risks for those platforms that would be very difficult to mitigate. For these reasons, we believe the requirement for an override system should be removed completely.

- ***Autonomous technology data recorder***

- The requirement in § 228.08 to capture sensor data for all vehicle functions controlled by the ADS is overly broad and should be clarified. For the purposes of crash reconstruction and safety evaluation, only data from functions directly related to vehicle control and incident analysis should be required. Some ADS-controlled functions, such as in-vehicle infotainment systems that receive ADS status, are not relevant to crash investigations. Additionally, capturing data from all redundant

sensors (e.g., multiple cameras with overlapping views) may not add value and could create unnecessary burden. We recommend revising the language to focus on recording data that is relevant to crash reconstruction and safety performance.

4. The Department should streamline first responder interaction, training, emergency geofencing, and notice of noncompliance requirements and processes.

Autonomous vehicle manufacturers and developers already proactively notify, engage with, and educate, first responders. Our members support maintaining first responder interaction plans and believe that first responders must be able to engage with AVs in a safe, supportive, and efficient manner. However, we believe that clarity, and in some cases, revisions, are needed with respect to training requirements, emergency vehicle detection capabilities, and emergency geofencing. Similar to our comments above, vehicles that always have a physical driver present do not require dedicated processes to interact with first responders. In general, we recommend further flexibility, clarity, and coordination on each of these issues.

- ***First responder training regime***

- As noted in our previous comments, the currently proposed approach for first responder training lacks clarity for companies about required content and frequency, and may be burdensome for first responders because they would need to attend trainings for each company that operates within their jurisdiction. As previously recommended, rather than requiring each company to create their own training program and requiring first responders to spend valuable time training with each company that operates in California, we recommend that a central authority or trusted third party create and operate a universal training program that first responders can attend either in-person or online in an asynchronous manner. For situations in which a company's vehicle has unique characteristics, supplemental training materials could be required.
- The requirement under § 227.42 (i)(9) to provide "regular training to first responders located within the operational design domain" requires additional clarity. Specifically, it would be helpful to understand what frequency constitutes "regular" training. If a company's vehicles or interaction protocols have not substantively changed, there should not be a requirement to conduct additional training on an arbitrary cadence. This requirement would create an unnecessary burden for first responders. We instead recommend that companies provide training and/or training resources at the request of the first responders.

- ***Emergency vehicle detection***

- We are concerned about the proposal in § 227.42 (i)(1) to certify that the ADS “is able to positively recognize and respond to *each type* of emergency vehicle.” New makes and models of emergency vehicles are being introduced to fleets frequently in the 500+ municipalities across the state. As written, this could impose requirements on localities or first responders to update AV companies each time they introduce a new vehicle to their fleet. The Department should clarify that this provision requires that the ADS can identify the presence of an active emergency vehicle and respond to it appropriately, not identify a specific type or make/model of vehicle.

- ***Emergency geofencing***

- The proposed rules in § 227.42 (e)(3)(F) introduce the concept of an “avoidance area” and emergency geofencing requirements. As drafted, an AV company must “direct its fleet to leave or avoid an identified area within 2 minutes of receiving an emergency geofencing message.” There is no limit to the size of the geofenced area or the duration of the blockage. The short timeframe for evacuating a geofenced area could create scenarios where compliance is infeasible, such as dropping off a passenger within a large geofenced radius and not being able to leave the area within 2 minutes. We ask the Department to clarify that “respond to” means that a company has acknowledged the request and has begun to comply. A requirement to completely exit the area without flexibility for traffic conditions or the distance to be traveled would not be workable.
- For personally-owned vehicles, a private owner may be prevented from getting close to their house or business for an extended or indefinite period, whereas a conventional vehicle would not face the same restrictions. Furthermore, if there is a person with mobility issues using a retrofitted vehicle, that individual may not be able to easily arrange alternate travel. We recommend the Department return to its original recommendation, consistent with language enacted via AB 1777, and only require geofencing messages for vehicles without a driver present.
- The emergency geofencing data exchange requires uniformity and simplicity for both industry and municipalities in order to function correctly and support first response efforts. The regulations require companies to provide the format through which they can receive these messages. While we appreciate that the regulations require the format to be communicated by the manufacturer, the most effective solution for both parties could vary by company and the resourcing in the municipality. We encourage

the Department to work closely with industry and municipalities to determine the best solution or technology for transmitting this information through a standardized means.

- ***Notices of Autonomous Vehicle Noncompliance***

- We are concerned about the requirements outlined in § 228.40, which establish the process for receiving and responding to notices of noncompliance. The regulations do not specify the method through which an officer must issue a notice (e.g., via electronic or paper means) or a process for contesting a notice. In addition, the provision contains a novel requirement for the manufacturer, not the officer, to notify the DMV within 24 hours of issuance. We are concerned that the notification deadline is not based on a manufacturer's receipt of a notice. Moreover, it is unclear how a manufacturer of a personally owned AV would comply with these requirements.
- We recommend that the DMV requires notices of noncompliance to be issued simultaneously to both the manufacturer and the DMV via electronic means. If this requires additional time and resources to accommodate, we ask that the appropriate time be allotted to ensure that all stakeholders are aligned on how to effectively operationalize these requirements.

5. The expanded scope of data collection will dramatically increase CBI disclosure risks and could undermine existing personal privacy protections.

As noted in our previous comments, the draft regulations would significantly expand the scope of the data to be submitted by manufacturers and developers. While we appreciate the addition of § 227.72, which specifies the process by which manufacturers can protect CBI, we remain concerned that the expanded data reporting requirements create an increased risk that AV companies' CBI will be inadvertently disclosed, and individual privacy violated. In particular, the requirements for safety cases, software versions, and incident reporting would pose particularly high disclosure risks. While some data will serve safety objectives, these benefits are not clear for every category of information requested. With additional data, the "signal to noise ratio" may increase, making it harder to determine when there is a real safety concern. This could lead to less safe outcomes. It is also unclear whether the Department has adequate resources to analyze, retain, act upon, and protect all the data it is proposing to collect. We urge the Department to carefully examine all data elements being requested, and limit collection to only what is necessary to protect program participants' CBI, data required to be kept confidential under the NHTSA SGO, and other privacy considerations.

In addition, if the regulations are not tailored to address the private ownership of ADS-equipped vehicles, they would create significant privacy risks for individuals and families. In practice, it is not

feasible to operate an AV without collecting data—especially when reporting incidents such as collisions or Dynamic Driving Task (DDT) failures, which inherently involve PII, such as precise geolocation, vehicle identification number (VIN), and license plate number. We encourage the Department to align the data requirements for personally owned vehicles with the California Privacy Rights Act (CPRA), and to ensure that drivers retain control over how their data are shared. Should the DMV decide to maintain these reporting requirements, we recommend that any data sharing to the DMV be expressly excluded from the CPRA regulation. We urge the Department to evaluate each provision within the regulations to ensure that individual privacy would be safeguarded.

6. We encourage the Department to align its regulations with federal and industry standards.

As suggested previously, Auto Innovators and its members are broadly concerned that these draft regulations would lead to potential misalignment with federal standards and reporting requirements, as well as industry consensus standards. While we acknowledge California’s authority to ensure the safety of its citizens and roadways, we are deeply concerned that a regulatory patchwork is emerging across and within states. To the extent feasible, we urge the Department to align its regulatory approach (definitions, reporting requirements, and if necessary, equipment standards), with those of the Federal government and SAE International.

7. We ask the Department to review its proposed definitions and certain logistical considerations to ensure adequate clarity and efficiency.

The following definitions and provisions would benefit from additional clarity or modification:

- ***Definitions***

- § 227.02 (h). “Autonomous vehicle” is defined to indicate that “the department may rely on any relevant information available to the department” to “determine whether a vehicle is equipped with feature(s), that, when engaged, meet the definition of Levels 3, 4, or 5...” This language could allow the DMV to deem systems to have higher levels of automation than intended by the manufacturer. We ask the Department to consider revising this definition to a manufacturer certification of autonomy level.
- § 227.02 (l). We suggest changing the definition of “cyber security” to include a reference to “ADS-equipped vehicle” rather than “autonomous vehicle.”
- § 227.02 (cc). “Manufacturer” is expanded to include “a person who directly or indirectly through one or more intermediaries, controls, is controlled by, or is under the common direction and control with, the manufacturer.” This definition could be interpreted to

expand the definition of a “manufacturer” to include upstream and downstream companies, such as suppliers or parent companies. We ask the DMV to clarify that these additional entities would not be required to comply with obligations typically associated with autonomous vehicle manufacturers -- permitting, requests for information, reporting, training, etc. Without this clarification, AV manufacturers would be uniquely reliant on affiliated entities to respond to items like requests for information in order to remain in compliance.

- § 228.02 (b). The Department removed references to “sale” and “lease” from the definition of “deployment,” and it is not clear why. Deployment includes circumstances in which ADS-equipped vehicles are sold and leased. The new definition is vague, making it unclear whether the DMV intends to prevent or allow the sale or lease of ADS-equipped vehicles that have received a deployment permit, including personally owned vehicles with Level 3 systems.
- We ask that the Department consider proposing a definition of “disengagement” that reduces ambiguity, narrows the scope of circumstances that qualify as disengagements, and addresses the other concerns discussed earlier in our comment. At a minimum, “disengagement” should be defined to exclude any system-initiated takeover requests for a Level 3 system.
- We suggest adding a definition of “vulnerable road user.”

- ***Effective Date, Permitting, and Fees***

- It is unclear when the regulations will become effective and whether they will apply retrospectively to already deployed vehicles. We ask that the Department provide clarity with respect to these questions.
- Several recently revised forms are referenced within the proposal. We request that these updated forms be made publicly accessible as soon as possible.
- § 227.20 would change the permit period from two years to one year. Given the amount of preparation and data that goes into an application, and the uncertainty created by needing to renew each year, we strongly recommend that the Department maintain a two-year permit period. We also request clarity on the duration of the permit depending on the day within the month that the permit is granted.
- § 227.28 requires a \$50 fee to add more than 10 vehicles and more than 20 drivers to a manufacturer’s testing permit. A “driver” is defined as “the natural person who drives or is

in actual physical control of the autonomous vehicle when it is not operating in the autonomous mode.” There does not appear to be a fee structure for adding remote drivers or remote assistants. We request clarity on this issue.

- § 228.12 requires that an application be amended, a fee be paid, and additional testing be conducted if certain changes are made to the vehicle or program. We request clarification on the extent to which changes trigger an amended application. For example, it is unclear what would constitute different geographic areas and the removal of conditions. In addition, § 228.12 indicates that adding a vehicle make and/or model would warrant an amended application. We support an approach where multiple models sharing identical permit application content (such as the same ODD and safety case) can be associated with a single permit, including the original permit application. We ask for further clarification on this issue.

- ***Technological System Enhancements***

- We ask that the DMV portal be expanded to allow for saved drafts of submissions, multiple users to access a company's submissions, and an automated process to submit reporting data that does not require manual inputs.