

Date of Hearing: April 21, 2025

ASSEMBLY COMMITTEE ON TRANSPORTATION

Lori D. Wilson, Chair

AB 33 (Aguiar-Curry) – As Amended March 4, 2025

SUBJECT: Autonomous vehicles

SUMMARY: Prohibits an autonomous vehicle (AV) without a human operator from delivering commercial goods directly to a residence or to a business for its use or retail sale. Specifically, **this bill:**

- 1) Provides that a violation of this provision is not an infraction and instead is punishable by a civil fine not to exceed \$25,000 for each instance of the violation.
- 2) Defines commercial goods as any goods, wares, merchandise, or other tangible items requiring transportation for a fee or a commercial purpose. Commercial goods include any items for which a motor carrier permit is required.
- 3) Defines “human operator” to mean a person operating an AV or vehicle equipped with autonomous technology who is trained in operating and shutting off the vehicle. The human operator is required to meet all federal and state qualifications for the type of vehicle being operated, whether in automated or nonautomated mode.
- 4) Requires California Department of Motor Vehicles (DMV) to issue a report to the Legislature by January 1, 2031, or five years after the commencement of testing, evaluating the performance of AV technology and its impact on public safety and employment in the transportation sector for AVs and their impact on public safety and employment in the transportation sector for AVs utilized to deliver commercial goods. The report is required to include a recommendation on whether the Legislature should remove, modify, or maintain the requirement for an AV utilized to make deliveries to operate with a human safety operator physically present in the vehicle, and requires the Legislature to conduct an oversight hearing.
- 5) Requires the California State Air Resourced Board, the Department of the California Highway Patrol, the Labor and Workforce Development Agency, the Department of Transportation or other relevant state agencies to collaborate with DMV on issuing the report.

EXISTING LAW:

- 1) Authorizes the operation of AVs on public roads for testing purposes under certain circumstances specified in DMV regulations. (Vehicle Code Section (VEH) 38750)
- 2) Defines “autonomous vehicle” to mean vehicle equipped with technology that makes it capable of operation that meets the definition of Levels 3, 4, or 5 of the Society of Automotive Engineers (SAE) International's Taxonomy and Testing of Autonomous Vehicles Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (APR 2021). (VEH 38750)

- 3) Defines “autonomous technology” to mean technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator. (VEH 38750)
- 4) States that an AV does not include a vehicle that is equipped with one or more collision avoidance systems, including, but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator. (VEH 38750)
- 5) Prohibits the operation of AVs on public roads for non-testing purposes unless the manufacturer of the vehicles submits an application to DMV that is approved pursuant to DMV regulations. (VEH 38750)
- 6) Requires DMV to approve an application submitted by a manufacturer for the operation of AVs for non-testing purposes if DMV finds that the applicant has submitted all information and completed testing necessary to satisfy that the AVs are safe to operate on public roads and the applicant has complied with all requirements specified in DMV regulations. (VEH 38750)
- 7) Authorizes DMV to impose additional requirements it deems necessary to ensure the safe operation of AVs if those vehicles are capable of operating without the presence of a driver inside the vehicle. (VEH 38750)

Existing DMV regulations:

- 1) Requires AV manufacturers to have a testing or deployment permit to operate an autonomous vehicle in California.
- 2) Restricts the testing and deployment of autonomous vehicles to vehicles under 10,001 pounds and excludes motorcycles.
- 3) Authorizes both the testing and deployment of AVs without a human operator inside the vehicle.
- 4) Requires an AV with a testing permit (but not a deployment permit) to report collisions to DMV within 10 days of the collision if the collision resulted in damage of property or in bodily injury or death if they have a testing permit.
- 5) Requires AVs with a testing permit (but not a deployment permit) to report disengagements on an annual basis.

FISCAL EFFECT: Unknown

COMMENTS: The Legislature passed SB 1298 (Padilla), Chapter 570, Statutes of 2012 which permitted AVs to operate on public roads for testing by a driver under certain conditions. In 2014, DMV released regulations to allow for testing AVs with a test driver, and in April 2018, DMV finalized regulations for the testing and deployment of AVs on public roads without a driver. Thirty-six companies currently have a permit for testing with a driver (down from a high of 58), and six companies have received a permit for testing without a driver. Three companies

have received a deployment permit without a human driver. One company has a deployment permit for a level three AV, which requires a human operator. One or two companies currently have a deployment permit. One company, Cruise, has lost both its deployment permit and its permit to test without a human operator.

DMV regulations prohibit the testing or deployment of AVs weighing 10,001 pounds or more. This was initially done for safety reasons, as vehicles with heavier weights are capable of causing significantly more damage in a collision. DMV held a public workshop on January 27, 2023, to receive public comment to potentially start a new regulatory process to consider authorizing the testing and deployment of AVs over 10,000 pounds after years of lobbying efforts.

In August of 2024 the DMV published a draft proposal for regulations for AVs. That draft permits AVs over 10,001 pounds to operate with or without a human operator on freeways and arterial roads. While DMV issued a draft proposal for regulations, it has yet to begin an official proposal for rulemaking to expand the use of AVs over 10,001 pounds.

According to the author, “AB 33 protects public safety and supports California's workforce by requiring a human safety operator in autonomous vehicles (AVs) used for commercial deliveries to homes and businesses. This ensures critical human oversight when it matters most—when AVs navigate neighborhoods and business districts. The testing and deployment of light-duty AVs in California have been fraught with malfunctions, including interference with emergency response scenes, collisions, and sudden stops that block traffic. Adding deliveries of countless consumer goods to homes and businesses on local streets and roads throughout the state will result in a proliferation of autonomous vehicles—meaning that AVs have greater potential to injure and kill Californians and threaten jobs. With up to 3 million transportation-related jobs at risk, workers face potential job loss, declining wages, and diminished bargaining power. Proponents claim AVs will create jobs, yet they have provided no clear plan for transitioning workers from traditional delivery roles or brick-and-mortar businesses. This bill addresses these challenges by requiring a certified human safety operator to supervise AVs used for commercial deliveries, ensuring that a human may intervene in unexpected situations and emergencies. By requiring human oversight, this bill allows AV technology to advance responsibly while prioritizing public safety and creating a pathway for California’s transportation workforce to adapt to AV technology.”

Unclear if AVs are safer than humans. According to a RAND Corporation report *Driving to Safety: How Many Miles of Driving Would it Take to Demonstrate Autonomous Vehicle Reliability*, it may take decades before we know if AVs are safer than human drivers. Despite tens of thousands of deaths on the road every year, humans are capable of driving a remarkable number of miles without collisions. Americans drive 3 trillion miles every year. In 2013, there were 2.3 million injuries reported, a rate of 77 injuries per 100 million miles driven. The 32,719 deaths from car crashes that year correspond to a rate of about one fatality per 100 million miles driven. AVs have not driven anywhere near that many miles, and already an AV has killed at least one person in Tempe, Arizona.

AV companies often cite a report from the National Transportation Safety Board (NTSB) that found that 94% of all collisions are because of human error, and concluded that AVs have the potential to save tens of thousands of lives. According to the Insurance Institute for Highway Safety (IIHS), “It is likely that fully self-driving cars will eventually identify hazards better than

people, but we found that this alone would not prevent the bulk of crashes.” IIHS estimates that only a third of the collisions caused by human error would be expected to be avoided because AVs will potentially have more accurate perceptions than human drivers and are not vulnerable to incapacitation. Avoiding the other two-thirds would require AVs that are programmed to prioritize safety over speed and convenience.”

The Autonomous Vehicle Industry Association, California Grocers Association, Technet and the Alliance for Automotive Innovation, *writing in opposition to this bill*, argue “The status quo for safety is unacceptable and AB 33 would lock it in. The National Highway Traffic Safety Administration (“NHTSA”) estimates that over 40,000 traffic deaths occurred in 2023—approximately 100 fatalities per day. In California alone, more than 4,000 lives were lost in motor vehicle crashes in 2023. 2024 was the deadliest year on San Francisco roads in decades, a year when the city’s Vision Zero SF program marked its 10th anniversary. These fatality numbers reveal a pattern of increasingly unsafe driving that is occurring in California and across the country, and they reflect an unacceptable status quo when it comes to safety on our roadways. Now is the time for California to support safety-enhancing solutions like AVs, not arbitrarily foreclose their use.

Rather than increase barriers to the deployment of AVs, California should support driverless AV operations because AVs do not drive drunk, text while driving, fall asleep at the wheel, or recklessly speed. AVs have built a significant safety record through more than a dozen years of development and deployment, with vehicles operated by members of the Autonomous Vehicle Industry Association having driven more than 70 million autonomous miles on U.S. public roads alone. This safety record is supported by data collected by the federal government, which requires AV companies to report incidents—no matter how minor or who caused the incident—that occur while an automated driving system is engaged. Autonomous vehicles, of all kinds and providing various services, are safely operating without human drivers across the country, but AB 33 would prevent California from reaping these safety benefits.”

AVs performance in California. Since 2021 AVs have been providing passenger service in California. Most AV testing and deployment in California has occurred in San Francisco. In January 2023, the San Francisco County Transportation Authority asked the California Public Utilities Commission to reject Waymo’s request to allow commercial deployment throughout the city. The letter notes a series of 9-1-1 calls that the city had received noting AVs causing traffic obstructions and backups and erratic driving. The duration of unplanned AV stops obstructing travel lanes appeared to range from minutes (extending through many traffic light cycles) to hours. Additional incidents were posted on social media or reported by the media. The number of reported incidents is likely a fraction of the total unplanned stops because most are reported during late night hours when few people are on the streets to notice them and because many people would not think to call 9-1-1 in these circumstances. The AV failure incidents the public has reported have been significantly concentrated on downtown streets, streets with transit service, streets on the bike network, intersections, and streets on the City’s High Injury Network (the 12% of San Francisco streets that account for more than 68% of severe or fatal injury crashes).”

The California Labor Federation, a co-sponsor of this bill, argues “ There are over half a million workers who drive for a living in California—in delivery, freight, passenger service, public transit, and more. Commercial drivers have the experience and training to navigate the complexities of the roads they share with other drivers and the public. Yet, companies are

looking to increase their profits with driverless vehicles at the complete expense of workers who provide for their families.

Many companies are already replacing workers, and the push to implement AI in nearly every technological aspect of our lives is also expanding to driverless vehicles. Additionally, companies like Amazon are increasing their investment in autonomous technology for last-mile commercial package deliveries. They are looking to invest over a billion dollars in technologies to replace workers.

To ensure job protection and consumer safety, AB 33 requires a human operator on any driverless vehicle used to deliver commercial goods directly to residences or businesses. This approach is technologically neutral and still allows the technology's deployment to make deliveries, so long as a human operator is present."

Governor veto: Last year Governor Newsom vetoed AB 2286 (Aguiar-Curry) which would have prohibited AVs over 10,001 pounds from operating without a human operator. In his veto message, the Governor stated:

"This bill would prohibit the operation of autonomous vehicles weighing 10,000 pounds or more on public roads for testing, transporting goods, or carrying passengers without a human safety operator physically present in the vehicle.

In my veto of a nearly identical bill last year, I expressed that my Administration remains committed to working with the author, sponsors, and stakeholders in furthering our efforts to meet the needs of traffic safety, worker protections, and jobs as this evolving technology progresses in California.

As we continue to move forward, it is important to note that 35 jurisdictions -- including Arizona, Nevada, Texas, Washington, and the District of Columbia - have already authorized the testing of heavy-duty autonomous vehicles. California remains the only state to actively prohibit these vehicles.

Recognizing that our workforce is the foundation of our economic success, California leads the nation with some of the strongest worker protection laws. Our state also is renowned globally as a leader in technological innovation. We reject that one aim must yield to the other, and our success disproves this false binary. But advancing both priorities requires creativity, collaboration, and a willingness to work together to identify pragmatic solutions. Toward that end, my office offered multiple rounds of suggested amendments, which were unfortunately not accepted. While I cannot sign this legislation in its current form, my Administration stands ready to work with the legislature and stakeholders toward progress on this issue."

Committee comments: In 2012 the Legislature gave the Governor and DMV the authority to determine if AVs are safe to operate on public roads for testing by a driver under certain conditions. This bill would claw back the authority given to the Governor to permit the use of autonomous vehicles to make deliveries. The Legislature should consider if it believes there is sufficient reason to remove that authority.

Over the last two years, the Legislature passed and the Governor vetoed AB 2286 (Aguiar-Curry) of 2024 and AB 316 (Aguiar-Curry) of 2023, which would have prohibited the operation

of AVs over 10,001 pounds without a human operator. That approach codified existing DMV regulations.

This bill is both narrower and more expansive than prior attempts to restrict AV operation without a human operator. This bill authorizes driverless AVs over 10,001 pounds so long as the operation does not include delivering commercial goods directly to a retail business or a person's home for use or sale. Theoretically, this bill would not prohibit the possibility for the operation of driverless AVs for deliveries, including vehicles over 10,001 pounds, to a business so long as the product is not intended to be used or sold at that location. It is unclear in the bill what "use" may mean, and could be interpreted to mean even storing the product counts as a "use."

However, this bill is also more expansive than the prior two efforts, as it would prohibit a business model DMV regulations currently permit. Existing AV regulations permit the testing or operation of AVs under 10,001 pounds, both for passenger delivery and goods delivery. Nuro Inc. has had a deployment permit to operate a driverless delivery AV in California for its driverless delivery service since December 23, 2020. It was the first AV company to receive a deployment permit to operate a driverless AV from the DMV for profit. Nuro is permitted to operate in San Mateo and Santa Clara in fair weather conditions at a speed of 25 miles per hour (mph) on roadways with a maximum speed of 35 mph. Nuro has developed an AV incapable of operating with a human operator and has received approval from NHTSA to operate the vehicle as a low-speed vehicle on public roads. Since 2019, Nuro has had partnerships with Kroger to deliver groceries, Dominos to deliver pizza, or Uber Eats to deliver food. Should this bill pass, their vehicle would no longer be permitted to operate in California.

This bill also takes a different approach than the Governor's draft proposal to authorize AV testing and deployment for AV trucks. The Governor's proposal would permit freeway and arterial driving by AV trucks over 10,001 pounds, authorizing them to essentially drive from one hub to another, while prohibiting their use on roads that would authorize them to make personal deliveries to homes and businesses. Such restrictions potentially stem from the fact that driving on local streets and roads is more difficult for AVs, as more unpredictable behavior can occur. The danger of this unpredictability for heavier vehicles is significantly larger because the weight and speed of a vehicle can increase the likelihood of death.

The Legislature should consider if it makes sense to prohibit light-duty delivery of goods when it permits far more precious cargo, a human, to be delivered by an AV. The Legislature should consider if it should take an action that would potentially permanently prohibit the use of driverless AVs for deliveries unless or until the Legislature repeals such a law, or if it should continue the existing policy of allowing the DMV and the Governor, through regulation, to continue to expand the use of AVs.

Previous legislation: AB 96 (Kalra), Chapter 419, Statutes of 2023 requires a public transit employer to provide written notice to an exclusive representative of the workforce affected by autonomous transit vehicle technology, and that collective bargaining commence within a certain timeframe, among other provisions.

SB 1298 (Padilla), Chapter 570, Statutes of 2012 established conditions for the operation of AVs upon public roadways.

AB 2286 (Aguiar-Curry) of 2024 would have restricted an AV with a gross vehicle weight (GVW) of 10,001 pounds or more from being operated on public roads for testing purposes, transporting goods, or transporting passengers without a human safety operator physically present in the AV at the time of operation. That bill was vetoed by Governor Newsom.

AB 3061 (Haney) of 2024 would have required the manufacturers of autonomous vehicles (AVs) to report to the Department of Motor Vehicles (DMV) any vehicle collision, traffic violation, or disengagement, or the assault or harassment of any passenger or safety driver that involves a manufacturer's vehicle in California starting July 31, 2025. That bill was vetoed by Governor Newsom.

SB 915 (Cortese) of 2024 would have required local authorization for an AV commercial passenger service to operate within its limits. That bill died in this committee.

AB 316 (Aguiar-Curry) of 2023 was substantially similar to AB 2286. That bill was vetoed by Governor Newsom.

AB 2441 (Kalra) of 2022 would have required a public transit district to provide written notice to an exclusive representative of the workforce affected by autonomous transit vehicle technology, among other provisions. That bill was vetoed by the Governor.

SB 336 (Dodd) of 2019 would have required a transit operator on every fully-automated transit vehicle until January 1, 2025. That bill died in this committee.

AB 1141 (Berman) of 2017 would have required DMV to adopt regulations setting standards for AVs operating freight by September 30, 2018. That bill died in Assembly Communications and Conveyance Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

California Federation of Labor Unions, AFL-CIO (co-sponsor)
California Teamsters Public Affairs Council (co-sponsor)
Abate of California
California Conference Board of the Amalgamated Transit Union
California Conference of Machinists
California State Legislative Board of SMART – Transportation Division
CFT-A Union of Educators & Classified Professionals, AFT, AFL-CIO
Consumer Attorneys of California
California State Legislative Board—Brotherhood of Locomotive Engineers and Trainmen
Engineers and Scientists of California, IFPTE Local 20, AFL-CIO
Orange County Employees Association
SEIU California
Unite Here International Union, AFL-CIO
Utility Workers Union of America, AFL-CIO

Opposition

Abate-a-Weed
Alliance for Automotive Innovation
Association for Uncrewed Vehicle Systems International
Aurora Innovation
Autonomous Vehicle Industry Association
California Chamber of Commerce
California Grocers Association
California Manufacturing Technology Association
Chamber of Progress
Coalition of Small and Disabled Veteran Businesses
Consumer Technology Association
Cupertino Chamber of Commerce
Flasher Barricade Association
Gatik
Kodiak
Mountain View Chamber of Commerce
National Federation of the Blind of California
NFIB
Nuro
Palo Alto Chamber of Commerce
Silicon Valley Leadership Group
Stack Ai
Technet
Tesla
Torc
Truck and Engine Manufacturers Association
Volkswagen ADMT
Volvo Autonomous Solutions, a Volvo Group Company
Waabi
Waymo
World Blind Union
Zoox

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