

California adopts tough standards for trucks, lawn equipment

By Adam Beam

Sacramento Bee, Friday, December 10, 2021

Forget speeding tickets — California truck drivers will soon have to watch out for pollution tickets.

State regulators on Thursday voted to crack down on heavy duty trucks weighing more than 14,000 pounds (6,350 kilograms) — those big semi-trailers that make up just 3% of all vehicles in California but spend so much time on the road they account for more than half of all pollution from cars and trucks each year.

New rules will require these big trucks, including ones from other states passing through California — to be tested at least four times per year to make sure they meet the state's standards for particulate matter and ozone pollution.

To enforce the rules, state officials say they will install roadside monitoring devices to catch trucks that pollute too much. Automated license plate readers would help authorities identify offenders, who could be cited if they refuse to make repairs.

The state has two of these unattended monitoring devices in place and plans to install more. The devices resemble toll booths and capture a sample of the truck's exhaust as it passes through without stopping.

Environmental advocates said the rule — mandated by a 2019 law authored by state Sen. Connie Leyva — is the most significant action in a dozen years to clean up California's air, which consistently ranks among the dirtiest in the country. State officials estimate the rules will prevent more than 7,000 premature deaths because of respiratory illnesses by 2050, avoiding more than \$75 billion in health care costs.

“(The rules) have some significance for climate, but what we're really talking about here is the smog and the particulate matter that is making people sick and killing people,” said Bill Magavern, policy director for the Coalition for Clean Air, a statewide advocacy group.

The proposal is one of a flurry of forthcoming changes that could dramatically reshape consumer and industry behavior in the nation's most populous state that, were it an independent country, would have the world's fifth-largest economy.

Also on Thursday, the California Air Resources Board agreed to ban the sale of new products run by small gas-powered engines, including leaf blowers, lawn mowers and portable generators — a rule recently mandated by the state's Democratic-dominated state Legislature. Next year, regulators are poised to tighten emission standards for barges, ferries, fishing boats and tugboats that line California's coastal cities.

And, further down the road, regulators plan to ban the sale of all new gas-powered cars by 2035.

“These are the decisions we have to make if we're serious about reducing our reliance on fossil fuels and leaving future generations with healthier communities,” said Assemblyman Marc Berman, a Democrat from Palo Alto who authored the law requiring the ban on new gas-powered lawn equipment.

While the new smog check rules for big trucks will have the largest impact on air quality — preventing more than 680,000 tons of smog by 2050 — banning the sale of new gas-powered lawn equipment will be the rule consumers notice the most.

Car engines have advanced over the years to pollute less. But the small engines that power most lawn equipment haven't made as much progress. State regulators say the amount of pollution that comes from running a gas-powered leaf blower for one hour is comparable to driving a gas-powered car about 1,100 miles (1,770 kilometers) — or roughly the distance between Los Angeles and Denver.

“Nobody will have to give up or stop using equipment they already own. The force of this regulation falls on manufacturers,” Berman said.

The rules will have the biggest impact on professional landscapers, who rely on gas-powered equipment to do multiple jobs per day. California lawmakers included \$30 million in the most recent state budget to assist these companies converting to battery-powered equipment. But on Thursday, some landscapers testified that equipment would not be as reliable.

Trucking companies and small engine manufacturers have mostly complained about how fast these new standards would be imposed. Both the smog check rules for trucks and the ban on the sale of new gas-powered lawn equipment would be fully implemented by 2024, while a similar ban on sales of new gas-powered generators would take effect in 2028.

Some trucking industry representatives on Thursday urged regulators to first test the rule with a pilot program before implementing it statewide. Parts truckers need to comply with these rules are becoming harder and more expensive to find, raising fears it could force some trucks off the road while waiting for repairs and could worsen supply chain problems that have hobbled businesses and frustrated consumers.

Chris Shimoda, senior vice president for government affairs with the California Trucking Association, said one sensor truckers often need normally costs around \$300 now can cost \$7,000 or more. But the new rules do allow for extensions for people who have trouble getting parts.

"We just want to make sure that, again, anybody experiencing those sort of issues is not left high and dry," Shimoda said.

Jeff Coad, vice president for marketing and product management for the small engine manufacturer Briggs & Stratton, said the company is ambivalent about how their products are powered but said it won't have enough time to fully comply.

"Converting a product such as a large zero turn mower from gas to lithium battery power is not just a matter of replacing the engine with the battery," he said, adding the development time can take up to two years.

Liane Randolph, chair of the California Air Resources Board, said the state is sensitive to those concerns, adding that regulators do a careful analysis of both the costs and the health benefits of any proposed rule.

"These regulations result in less trips to the emergency room, less long term health impacts, and, frankly, less medical costs for the community," she said.

California's heavy-duty trucks don't have to get smog-checked. Why that's about to change

By Dale Kasler, The Sacramento Bee
Bakersfield Californian, Friday, Dec 10, 2021

SACRAMENTO, Calif. — California motorists have been getting their vehicles smog-checked for decades.

Now the state's truckers will have to do the same.

The California Air Resources Board voted Thursday to require medium- and heavy-duty trucks and buses to get regularly smog-checked, saying the 1 million or so rigs on California's roads are responsible for a major share of the state's smog problem.

"It's a great day in the San Joaquin Valley," said Tania Pacheco-Werner, a board member from the Fresno area. With Valley air among the worst in California, she said the smog-test requirement will give "families and children a chance to have better lives and better outcomes."

Air board officials said trucks represent just 3% of California's vehicles but account for about half of the NOx and particulate-matter emissions produced by the transportation sector. NOx and particulate-matter are key to the formation of smog, which can cause asthma and other ailments. Officials estimated that 145,000 trucks could fail their smog tests.

"That's a lot of trucks — I want to catch them as soon as possible," said board member Diane Takvorian. The requirement applies to vehicles over 14,000 pounds.

Environmentalists called it the biggest anti-pollution step taken by the air board in more than a decade — and long overdue. Cars have been getting smog-checked since 1984.

The board said the regulation will take 71 tons of NOx emissions out of the air each day by 2031, a reduction of 50%.

Trucking industry officials generally accepted the board's vote. But they warned that, as supply-chain woes continue to plague the American economy, truckers might struggle finding replacement parts to fix faulty emissions systems. And if they have to take their rigs off the road, it will worsen the supply issues for the economy as a whole.

"We're never going to solve the supply-chain crisis if the transportation providers themselves fall victim to these same problems," said Chris Shimoda of the California Trucking Association. "We can't cause a ton of downtime."

The requirement begins in 2023 in Southern California and the San Joaquin Valley. It goes statewide in 2024.

These smog-checks will look a lot different than what ordinary motorists undergo. Much of the emissions data will be recorded in real time by onboard diagnostic equipment. The trucks will have to undergo in-person inspections twice a year, although that requirement eventually will increase to four times a year.

Trucks are already subjected to occasional testing for pollution, but the inspections "don't catch all the pollution," said Bill Magavern of the Coalition for Clean Air.

The vote came two years after Gov. Gavin Newsom signed SB 210, which directed the board to develop a smog-check program for trucks.

Magavern recalled talking to Newsom about the bill while it was still in the Legislature, and the governor hadn't been aware that trucks weren't required to undergo smog checks.

"He was shocked to find that out," Magavern said. "A few months later, he signed the bill."

California sets date to ban new gas-powered generators, lawnmowers, leaf blowers

By Madison Hirneisen

[The Center Square](#), Thursday, Dec 9, 2021

(The Center Square) – California environmental regulators have set a date to halt the sale of new gas-powered leaf blowers and lawnmowers, the latest move in the state's efforts to address pollution and reduce emissions.

The California Air Resources Board on Thursday voted to require that new, small off-road engines – like the ones found in leaf blowers and lawn mowers – meet zero-emission standards starting in 2024. In addition, portable generators, including those found in recreational vehicles, must be zero-emission by 2028.

"Today's action by the Board addresses these small but highly polluting engines. It is a significant step towards improving air quality in the state, and will definitely help us meet stringent federal air quality standards," CARB Chair Liane Randolph said in a statement. "It will also essentially eliminate exposure to harmful fumes for equipment operators and anyone nearby."

The requirements will apply to new equipment manufactured after 2024, meaning Californians who currently own gasoline-powered equipment will still be allowed to operate it even after the requirement kicks in. In addition, older models on store shelves can still be purchased even if they are gasoline-powered, according to CARB.

State regulators estimate smog-forming emissions will be reduced by 72 tons each day by implementing these rules. According to CARB, a single commercial operator using a backpack leaf blower for one hour generates the same emissions as a car driving 1,100 miles – roughly the distance between San Diego and Colorado Springs.

The board's decision affirmed a bill signed by Gov. Gavin Newsom in October, which called for a new gasoline-powered off-road equipment ban after 2024. The bill was part of the governor's California

Comeback Plan, which focuses on several climate change initiatives. Lawmakers amended the legislation to ensure regulators prove a ban on gas generators is feasible before implementing the restriction.

The state will offer incentive funds to commercial purchasers of zero-emissions equipment. The state legislature has earmarked \$30 million to help small landscaping businesses make the switch and purchase zero-emissions equipment.

California eyes tough standards for trucks, lawn equipment

By [Adam Beam, Associated Press](#)

The Business Journal, Thursday, December 9, 2021

(AP) — Along with speeding tickets, truck drivers in California could soon have to worry about pollution tickets while traveling the state's roads.

State regulators on Thursday will consider cracking down on heavy duty trucks weighing more than 14,000 pounds (6,350 kilograms) — those big semi-trailers that make up just 3% of all vehicles in California but spend so much time on the road they account for more than half of all pollution from cars and trucks each year.

The rules would require these big trucks — including ones from other states passing through California — to be tested at least twice per year to make sure they meet the state's standards for particulate matter and ozone pollution. Passenger cars are already required to get smog checks.

Newer trucks have sensors on board that can monitor emissions and send data to the state. But regulators also plan to use roadside monitoring devices to catch trucks that pollute too much, along with automated license plate readers to identify the offenders. The state has two of these unattended monitoring devices in place and plans to install more. The devices resemble toll booths and capture a sample of the truck's exhaust as it passes through without stopping.

Environmental advocates say the rule would be the most significant action in a dozen years to clean up California's air, which consistently ranks among the dirtiest in the country. If enacted, state officials estimate the rules would prevent more than 7,000 premature deaths because of respiratory illnesses by 2050, avoiding more than \$75 billion in health care costs.

“(The rules) have some significance for climate, but what we're really talking about here is the smog and the particulate matter that is making people sick and killing people,” said Bill Magavern, policy director for the Coalition for Clean Air, a statewide advocacy group.

The proposal is one of a flurry of forthcoming changes that could dramatically reshape consumer and industry behavior in the nation's most populous state that, were it an independent country, would have the world's fifth-largest economy.

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And, further down the road, regulators plan to ban the sale of all new gas-powered cars by 2035.

“These are the decisions we have to make if we're serious about reducing our reliance on fossil fuels and leaving future generations with healthier communities,” said Assemblyman Marc Berman, a Democrat from Palo Alto who authored the law requiring the ban on new gas-powered lawn equipment.

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running a gas-powered leaf blower for one hour is comparable to driving a gas-powered car about 1,100 miles (1,770 kilometers) — or roughly the distance between Los Angeles and Denver.

“Nobody will have to give up or stop using equipment they already own. The force of this regulation falls on manufacturers,” Berman said.

The rules would have the biggest impact on professional landscapers, who rely on gas-powered equipment to do multiple jobs per day. California lawmakers included \$30 million in the most recent state budget to assist these companies converting to battery-powered equipment. But on Thursday, some landscapers testified that equipment would not be as reliable.

Trucking companies and small engine manufacturers have mostly complained about how fast these new standards would be imposed. Both the smog check rules for trucks and the ban on the sale of new gas-powered lawn equipment would be fully implemented by 2024, while a similar ban on sales of new gas-powered generators would take effect in 2028.

Chris Shimoda, senior vice president for government affairs with the California Trucking Association, said the industry is suffering from a shortage of drivers and parts because of global supply chain disruptions. He said one sensor that measures diesel exhaust fluid that normally costs around \$300 now can cost \$7,000 or more.

“We just want to make sure that, again, anybody experiencing those sort of issues is not left high and dry,” Shimoda said.

Jeff Coad, vice president for marketing and product management for the small engine manufacturer Briggs & Stratton, said the company is ambivalent about how their products are powered but said it won't have enough time to fully comply.

“Converting a product such as a large zero turn mower from gas to lithium battery power is not just a matter of replacing the engine with the battery,” he said, adding the development time can take up to two years.

Liane Randolph, chair of the California Air Resources Board, said the state is sensitive to those concerns, adding that regulators do a careful analysis of both the costs and the health benefits of any proposed rule.

“These regulations result in less trips to the emergency room, less long term health impacts, and, frankly, less medical costs for the community,” she said.

Biden names Central Valley advocate to lead EPA in California, western U.S.

By Tim Sheehan

The Fresno Bee, Friday, Dec. 9, 2021

A longtime advocate for disadvantaged communities and the environment with roots in central California has been tapped by the Biden administration to lead the U.S. Environmental Protection Agency's Region 9, covering the southwestern United States and Pacific islands.

Martha Guzman Aceves, a member of the California Public Utilities Commission for the past five years, was announced Thursday as President Joe Biden's appointee to become the Region 9 administrator for the federal environmental agency. The Region 9 office in San Francisco oversees implementation and enforcement of federal environmental laws in California, Arizona, Nevada, Hawaii, Pacific islands and 148 tribal nations across the Pacific Southwest of the U.S.

The appointment was announced by EPA Administrator Michael Regan. “I am honored to be appointed by President Biden to serve as administrator of EPA Region 9 under the leadership of Administrator Regan,” Guzman Aceves said in a statement issued by the EPA. “And I am grateful for the opportunity to work with the resilient staff at Region 9 as we tackle the chronic and emerging environmental issues in our communities.”

Her duties on the Public Utilities Commission include fiscal oversight of utility companies, expanding access to broadband, water affordability, clean energy programs and preventing utility disconnections in low-income communities. In a 2019 opinion column in The Fresno Bee as a CPUC commissioner, Guzman Aceves acknowledged that residents in rural communities throughout the central San Joaquin

Valley confront multiple disadvantages beyond what she described as “the most extreme energy burdens in the state, paying a much larger percentage of their income for energy.” She said those disadvantages include daily exposure air pollution and, in many instances, poor infrastructure to provide access to affordable energy and water. “In California, we know climate change is real,” she wrote. “We also know that methane and carbon emissions are some of the leading culprits in this accelerating change. ... “San Joaquin Valley residents as a result face more intense and frequent heat waves, increased and prolonged droughts, greater risks of natural disasters such as floods and wildfires and are more vulnerable to a number of likely public health threats.” Prior to her appointment to the state utilities commission in December 2016 by then-Gov. Jerry Brown, Guzman Aceves served as Brown’s deputy legislative secretary with a focus on bills related to natural resources, environmental protection, energy, and food and agriculture.

Guzman Aceves, who is from Sacramento, has a career background that includes work as legislative coordinator for the United Farm Workers and director of the Sustainable Communities Project for the California Rural Legal Assistance Foundation, organizations that are active in Fresno and the central San Joaquin Valley. Before joining Brown’s staff in Sacramento in 2011, Guzman Aceves was a partner with Texas-based Cultivo Consulting, a human relations company. According to her LinkedIn professional profile, she was a co-founder of Communities for a New California and a former member of the California Water Commission. Guzman Aveves has also served on the boards of the UC Davis Agricultural Sustainability Institute, Ag Innovations, the Sierra Institute for Community and Environment, and Pesticide Action Network North America. She earned a bachelor’s degree in international economics at Georgetown University in Washington, D.C., and received her master’s degree in agricultural and resource economics from the UC Davis. “Given Martha’s extensive background in successfully delivering access to underserved communities, I am confident she is an excellent choice to lead our Region 9 team,” Regan said in announcing the appointment. “Martha is an experienced leader that values economic justice and will represent the best interests of the residents in the region.”

Landmark California smog rules target lawn equipment, big rig trucks

By Rachel Becker

CAL Matters, Thursday, December 9, 2021

Big rig trucks and lawn equipment face stricter pollution requirements under a suite of landmark rules approved today by California’s clean air regulators.

Manufacture of new, polluting models of lawn and garden equipment will be phased out in 2024 under the rule unanimously adopted by the California Air Resources Board, despite opposition from gardeners and landscapers.

And in a separate rule, big rigs will have to undergo periodic smog checks, just like cars, except most trucks will undergo the tests remotely through onboard diagnostics.

California is the first in the nation to require heavy-duty trucks to undergo smog checks or mandate zero-emission lawn equipment.

Together, the two rules are expected to avoid 8,400 premature deaths linked to air pollution and result in health benefits of more than \$84 billion. The trucks rule alone “is the largest emissions reduction measure since the truck and bus rule, and that was 2008,” said Jason Hill-Falkenthal, an air resources supervisor with the board’s mobile source control division.

The total cost to comply with the two rules: An estimated \$8 billion spread over more than 20 years.

Zero-polluting lawn mowers, leaf blowers

Under the new lawn equipment rules, manufacturers must meet zero-emission standards for new models of yard equipment, including weed whackers, lawn mowers, leaf blowers and smaller chain saws, in three years. Residents and workers, however, can continue to use and repair their gas-powered equipment.

Gardeners and landscaping associations raised concerns about higher costs to buy the equipment and additional batteries needed for a day’s work.

“The cost to transition would be significant and probably kill my small business,” Elizabeth Burns, president of Zone 24 Landscaping Inc., based in Torrance, said today at the hearing. “One other issue is the technology is not yet there for battery life and that’s super important.”

Also, under the new rules, new portable generators must meet stricter emission standards in 2024 and reach zero-emissions for model-year 2028 generators.

At a three-hour public hearing today, much of the opposition came from the RV industry and owners, who urged the board, unsuccessfully, to exempt their generators. Also, rural officials warned that alternatives to portable generators are cost prohibitive and do not perform adequately.

“Power outages in rural areas are frequent, can last for several days and are becoming more common,” said Dave Johnston, air pollution control officer for Eldorado County. “Forcing moderate to low-income rural residents to do without power for extended periods to achieve small emission reductions in these areas that are already in attainment is unconscionable.”

In a presentation, air board staff said the longer lead time of four more years for portable generators will allow “manufacturers to develop models with more energy storage and power delivery.”

Small engines powering lawn equipment and portable generators are a surprisingly large source of California’s air pollution, belching more smog-forming pollutants than cars and SUVs in California. Using a commercial leaf blower for an hour spews as much as driving 1,100 miles in a new car, roughly from Los Angeles to Denver, the air board reports.

Air board officials estimate that 93% of the equipment covered by the new standards would be zero emissions by 2035, compared to only 54% under current rules. The rule will prevent almost 900 premature deaths through 2043, with the health benefits expected to reach \$8.82 billion — offsetting expected costs of about \$4 billion to achieve the emissions, according to air board estimates.

Earlier this year, California legislators passed a law calling for new state regulations to bar emissions from yard equipment and portable generators.

“These engines cause asthma, cardio respiratory disease and increase cancer risk and premature death,” Assemblymember Marc Berman, a Democrat from Los Altos who co-authored the bill, said at today’s hearing, reminding board members that California is home to seven of the ten smoggiest cities in the country.

Still, he said, “it is important to emphasize that the regulation is not a ban on use. Nobody will have to give up or stop using equipment they already own.”

The lawn equipment rules build on existing regulations that have helped cut emissions from small off-road engines by half over the past 20 years. But in the absence of new regulation, their emissions are expected to grow to nearly twice those from cars and SUVs by 2031.

The mandate instead is aimed at manufacturers, air board staff say, not gardeners and landscapers, who can continue to use and repair gas-powered equipment even after the new rules take effect.

Manufacturers will be permitted to meet the emission standards using credits earned under previous rules, meaning that the phaseout won’t be instantaneous. The board also agreed to extend the timeline for certain pressure washers, pushing back zero-emission requirements to 2028. Staff acknowledged a lack of availability of new technology and their high power demands.

Still, Jeff Coad, vice president of marketing and management at manufacturer Briggs and Stratton, said the timeline is unrealistic for manufacturers and small businesses.

“The development time for each machine to convert from gas power to an electrified drive train can take two years” for each manufacturer, for each product, he said. And there’s been limited commercial uptake due to several issues, he said. “Battery runtime, lack of infield charging options, high cutting performance requirements and the very high price of electrified machines.”

California regulators acknowledge that small business landscapers, which make up more than 99% of the landscaping businesses in the state, may be significantly affected by the costs of the new rules.

“Purchasing all new (zero emission equipment) in addition to the batteries may be burdensome. However, landscapers using (zero emission equipment) may realize net cost-savings within the first few years of purchase due to decreased fuel and maintenance costs,” staff reported.

To help, California legislators carved out \$30 million to provide incentives for small independent gardeners and landscaping businesses to help cover the costs of transitioning to zero-emission equipment. The move follows similar incentive programs offered by regional air regulators in Southern California and the San Joaquin Valley.

“What we’ve learned through these efforts is that zero emission equipment is more readily available, but significant challenges remain and widely deploying this equipment,” said Tom Jordan with the San Joaquin Valley Air Pollution Control District. “This transition will not be an easy one that will require ongoing evaluation of technologies and will need significant new funding.”

Sandra Giarde, executive director of the California Landscape Contractors Association, urged the air board to push back the deadline for commercial users and called the rebates from the \$30 million in incentives “woefully inadequate.”

Construction and agricultural equipment such as larger chainsaws and brushcutters used for fuel management and wildfire preparation are exempt.

Bill Magavern, policy director with the Coalition for Clean Air, celebrated the new rule, warning that it’s the workers who suffer the worst consequences from yard care equipment emissions. But he also acknowledged the cost.

“We do think that as you move forward, there will be more incentive money needed,” Magavern said. “And we’ll be asking the Legislature and the governor for that.”

Smog checks for trucks

The other rule approved today requires emissions reporting for big rigs, which have long had a pass for the kind of smog checks required of older cars and SUVs.

California lawmakers and clean air regulators say it’s critical to ramp up requirements for heavy-duty vehicles, which make up about 3% of the vehicles on the road but account for about half of smog-forming and fine particulate pollution churned out there.

The new rule is projected to cut more than 680,000 tons of smog-forming gases and more than 6,000 tons of particulate pollution between 2023 and 2050 — equivalent to removing half of the trucks on the road today. The pollution reductions are expected to prevent more than 7,500 cardiopulmonary deaths, 2,500 hospital visits for heart and lung conditions and 3,500 emergency visits related to asthma.

The goal is to catch trucks with malfunctioning pollution-control devices, such as particulate filters. During field tests, air board staff discovered that 11 to 17% of heavy duty trucks with on-board diagnostics showed a malfunction indicator light, meaning that their emissions controls might be faulty.

Less controversial than the lawn equipment rule, board members unanimously approved the new regulation after less than an hour of public comment.

The rule establishes a \$30 annual fee for heavy duty vehicles operating in the state. Fleet operators must submit testing data twice a year to the air board no earlier than 2024, once the agency is ready to receive the results.

The price tag includes the fees, testing and vehicle repair costs — adding up to \$4.12 billion from 2023 through 2050, with a maximum annual cost of \$350 million in 2024, according to the air board.

Air board members debated whether to increase testing requirements to quarterly.

But Chris Shimoda, senior vice president of government affairs for the California Trucking Association, said the association supports the twice-yearly proposal.

“Given that staff estimates just 3% of malfunctioning trucks are contributing two thirds of all diesel particulate matter, we believe that we’re over-testing the vast majority of fleets at twice a year,” Shimoda

said. "This is a major new program and we look forward to working with you all on a successful and smooth implementation."

But during deliberations, board member Gideon Kracov, an attorney and member of the South Coast Air Quality Management District Governing Board, proposed more frequent testing in later years of the program. In a divided vote, the board approved the modification.

The regulation stems from a 2019 law that directed California regulators to develop a heavy-duty vehicle inspection and maintenance program. The bill took almost three years to be signed into law, said state Sen. Connie Leyva, a Democrat from Chino who authored the bill.

"These changes are long overdue, and I believe is what we need to keep moving the needle forward on air quality and climate change," Leyva said.

"For almost 40 years, these trucks have not had to do what all of us have had to do with our vehicles," she said.

For vehicles newer than model year 2013 equipped with onboard diagnostics, test data can be submitted automatically by built-in or plug-in devices. Older vehicles will need to have pollution control devices visually inspected, and exhaust checked for excessive smoke by a tester who has undergone air board training.

The air board intends to deploy a network of sensors to sniff out heavy polluters, who will be required to submit follow-up tests showing their vehicle meets state standards. If they don't, they could face a citation.

Like with passenger vehicles, compliance will be linked to registration with the Department of Motor Vehicles. "So that's a huge hook, right? Because if you're not complying, they say, 'Oh, you don't get your registration,'" said the air board's Jason Hill-Falkenthal.

The California Highway Patrol also can conduct inspections. And freight contractors and facilities must verify that fleets they work with are complying.

"Think of it as kind of an onion. We're putting together lots of layers, so everything kind of morphs together and gives a very strong enforceable program," Hill-Falkenthal told CalMatters.

His colleague, branch chief Kim Heroy-Rogalski, pushed back against the analogy. "But onions make people cry, and everyone will love this program!"

About 145,000 trucks are expected to fail in the first year, staff reported today. Some warned that the rule could damage the already struggling supply chain.

"The flow of interstate commerce can be fragile," said Michael Tunnel, representing the American Trucking Associations. "Programs such as this have the potential to further restrict the number of trucks that are eligible to service the state, either directly or indirectly."

Air board chair Liane Randolph called both measures "historic rulemakings" that stemmed from "our cooperative relationship with the legislature."