

State of California
Air Resources Board

Proposed Heavy-Duty Inspection and Maintenance Regulation

Resolution 21-29

December 9, 2021

Agenda Item No.: 21-13-3

Whereas, sections 39600 and 39601 of the Health and Safety Code authorize the California Air Resources Board (CARB or Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

Whereas, section 39002 of the Health and Safety Code authorizes the Board to control air pollution from vehicular sources;

Whereas, section 39003 of the Health and Safety Code directs the Board to coordinate efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles, which is the major source of air pollution in many areas of the State;

Whereas, in section 43000 of the Health and Safety Code, the Legislature declared that emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the State; and that the State has a responsibility to establish uniform procedures for compliance with standards to control emission of air pollutants from motor vehicles;

Whereas, section 43013 of the Health and Safety Code directs the Board to adopt and implement emission standards, in-use performance standards, and motor vehicle fuel specifications for the control of air contaminants and sources of air pollution for light-, medium-, and heavy-duty motor vehicles, which the Board has found to be necessary, cost-effective, and technologically feasible, to carry out the purposes of this division, unless preempted by federal law;

Whereas, section 43018 of the Health and Safety Code directs the Board to adopt standards and regulations that will result in maximum degree of emission reduction

possible from vehicular and other mobile sources in order to accomplish the attainment of State ambient air quality standards at the earliest practicable date;

Whereas, section 44152 of the Health and Safety Code directs the Board to adopt and implement a regulation for a Heavy-Duty Vehicle Inspection and Maintenance (HD I/M) Program for non-gasoline heavy-duty on-road motor vehicles with a gross vehicle weight rating of more than 14,000 pounds, as defined by the Board, including, but not limited to, single-vehicle fleets and other vehicles that are registered in another state but operate on California roads. The Board may inspect vehicles subject to this section in conjunction with the safety and weight enforcement activities of the Department of the California Highway Patrol or at other locations selected by the Board in consultation with the Department of the California Highway Patrol, and upon full implementation of the program, the Board shall sunset the requirements of the Periodic Smoke Inspection Program (PSIP) in Chapter 3.6 of Division 3 of Title 13 of the California Code of Regulations;

Whereas, section 44154 of the Health and Safety Code authorizes the Board to assess a compliance fee, not to exceed thirty dollars (\$30), to fund the reasonable costs of implementing the Heavy-Duty Vehicle Inspection and Maintenance Program. Section 44152 of the Health and Safety Code specifies that the cost of at least one reasonably accessible test procedure added to the compliance fee must not exceed the maximum allowable amount of the compliance fee specified in section 44154 of the Health and Safety Code. The compliance fee and the maximum amount allowable shall be adjusted annually based on the California Consumer Price Index as compiled and reported by the Department of Labor Relations;

Whereas, section 27153 of the Vehicle Code states that a motor vehicle shall not be operated in a manner resulting in the escape of excessive smoke, flame, gas, oil, or fuel residue; and that a non-gasoline heavy-duty on-road motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall not be operated in a manner resulting in the escape of visible smoke, except during active regeneration;

Whereas, section 27156 of the Vehicle Code states that no person shall disconnect, modify, or alter any of the required motor vehicle pollution control devices installed on a motor vehicle;

Whereas, section 27158.1 of the Vehicle Code requires a legal owner or registered owner of a non-gasoline heavy-duty on-road motor vehicle with a gross vehicle weight rating of more than 14,000 pounds to maintain a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate with the vehicle for which the certificate is issued;

Whereas, in 1991, the Board adopted the Heavy-Duty Vehicle Inspection Program (HDVIP) that directs CARB staff to inspect heavy-duty trucks and buses operating in California for excessive smoke, tampering, and emissions control label compliance;

Whereas, in 1993, the Board adopted the PSIP, which requires fleet owners of two or more heavy-duty diesel vehicles to perform annual smoke opacity tests;

Whereas, in 2005, the Board adopted a comprehensive and standardized on-board diagnostic (OBD) requirement for heavy-duty vehicles and engines, phasing in starting with 2010 model year engines. Specifically, manufacturers were required to implement an OBD system on a single engine family for 2010-2012 model year engines before implementing it on all 2013 and subsequent model year engines. The malfunction criteria for heavy-duty OBD are based on existing engine emissions standards;

Whereas, beginning in 2007, new heavy-duty diesel engines were subject to a particulate matter (PM) standard of 0.01 grams per brake horsepower-hour (g/bhp-hr), a fleet average oxides of nitrogen (NOx) standard of 1.2 g/bhp-hr from 2007 to 2009, a NOx standard of 0.20 g/bhp-hr starting in 2010, and a non-methane hydrocarbon standard of 0.14 g/bhp-hr.

Whereas, the Board adopted amendments to the OBD requirements in title 13, California Code of Regulations, sections 1971.1 and 1971.5 in 2013, 2016, 2019, and 2021;

Whereas, in 2018, the Board approved amendments to the HDVIP and PSIP for adoption, establishing a more stringent set of smoke opacity limits;

Whereas, in 2020, the Board approved for adoption CARB staff's proposed Heavy-Duty Engine and Vehicle Omnibus Regulation that would require more stringent NOx emission standards on new heavy-duty engines, up to 90 percent NOx emission reduction from the current heavy-duty standards;

Whereas, heavy-duty vehicles continue to be major contributors to statewide mobile air pollution, contributing about 52 percent of the statewide on-road mobile source NOx emissions and about 54 percent of the statewide on-road mobile source PM 2.5 emissions;

Whereas, despite improvements over the last five decades, many densely populated areas in California, such as South Coast and San Joaquin Valley air basins, are not in attainment with the federal ozone and PM 2.5 standards;

Whereas, the American Lung Association's 2020 State of the Air report found that California cities have the most widespread ozone and particle pollution in the nation;

Whereas, by 2031, it is projected that 65 percent of PM emissions and 47 percent of NOx emissions from heavy-duty diesel trucks would be due to mal-functioning emissions control systems;

Whereas, current CARB heavy-duty inspection programs mainly rely on smoke opacity testing to check for in-use heavy-duty vehicle emissions problems, which mainly targets only PM-related mal-maintenance issues;

Whereas, the HDVIP requires all vehicles operating in California to be subject to roadside inspections to check for compliance with the required smoke opacity limits;

Whereas, current periodic testing requirements in the PSIP require California-registered fleets with two or more vehicles to perform an annual smoke opacity test of each vehicle's emissions control system with potential enforcement audits to check for compliance. California fleets of a single heavy-duty diesel vehicle (i.e., owner-operator vehicles) and out-of-state vehicles are not currently subject to the periodic testing requirement under the PSIP;

Whereas, under the current HDVIP and PSIP testing structure and requirements, vehicles are regularly operating in California with malfunctioning emissions control systems;

Whereas, testing procedures beyond opacity testing with the ability to detect a broader suite of vehicle emissions mal-maintenance issues are needed to ensure emissions control system's mal-maintenance issues are identified and repaired to their proper functions;

Whereas, the annual periodic testing frequency does not adequately ensure emissions control issues are regularly addressed or effectively deter vehicle owners from operating with mal-maintained emissions control systems;

Whereas, the combination of the large vehicle population and the vast size of the State makes it impractical to rely solely on roadside enforcement efforts and audits of test records to enforce the programs;

Whereas, an ongoing boom in freight activity throughout California is further putting communities at risk, requiring a swift and effective policy response;

Whereas, in September 2019, Governor Gavin Newsom signed into law Senate Bill (SB), 210 (Leyva, Chapter 5.5, Statutes of 2019), directing CARB to develop a new, comprehensive HD I/M program in recognition of the critical need to revamp the existing heavy-duty inspection programs and to meet State and federal air quality standards;

Whereas, the Legislature states their intent in SB 210 that the creation and implementation of the HD I/M Program established by section 44152 of the Health and Safety Code, to the extent feasible, minimizes duplicative programs and program requirements in a way that reduces compliance requirements to truck owners and fleets;

Whereas, the Legislature has repeatedly focused on air quality and harmful emissions in disadvantaged communities such that Assembly Bill 617 (Garcia, Chapter 136, Statutes of 2017) recently directed CARB to focus air monitoring efforts in disadvantaged communities and develop community reduction programs to reduce emissions in these sensitive communities. Within the constructs of SB 210, the

Legislature found that trade corridors, such as those in the Inland Empire and Central Valley, consist of some of the most environmentally disadvantaged regions in the State;

Whereas, rare situations outside the control of the vehicle owner may occur that can hinder the ability to bring a vehicle into compliance with the HD I/M Program, where the loss of the ability to operate the vehicle could negatively impact smaller fleets to a greater extent than large fleets;

Whereas, to address this critical need, staff has proposed the HD I/M Regulation and the amendments to the PSIP, as set forth in Appendices A-1, A-2.1, and B to the Initial Statement of Reasons released to the public on October 8, 2021;

Whereas, CARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans, has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

Whereas, staff has determined that the proposed HD I/M Regulation is exempt from CEQA under California Code of Regulations, title 14, section 15061, subdivision (b)(3) ("commonsense" exemption) because the record of evidence shows with certainty that there is no possibility that the proposed activity may result in a significant adverse impact on the environment, as described in Chapter VII of the Staff Report;

Whereas, staff has determined that the proposed HD I/M Regulation is exempt from CEQA under California Code of Regulations, title 14, section 15301 ("Class 1" exemption) for the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures or facilities involving negligible or no expansion of use, as described in Chapter VII of the Staff Report;

Whereas, staff has determined the proposed HD I/M Regulation is exempt from CEQA under California Code of Regulations, title 14, section 15306 ("Class 6" exemption) because it is an action taken for purposes of data collection via electronic submission which does not result in serious or major disturbances to an environmental resource as described in Chapter VII of the Staff Report;

Whereas, staff has determined the proposed HD I/M Regulation is exempt from CEQA under California Code of Regulations, title 14, section 15308 ("Class 8" exemption: Actions Taken by Regulatory Agencies for Protection of the Environment) because the record of evidence shows that the regulation will enhance the environment by better protecting the public from health impacts associated with exposure to PM and NO_x, the regulatory process involves procedures for protection of the environment, and the regulation will not result in any significant adverse environmental impacts as described in Chapter VII of the Staff Report;

Whereas, a public hearing and other administrative proceedings have been held according to the provisions of Chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

Whereas, the Board finds that:

Despite advances in reducing emissions from mobile sources, stationary sources, and area sources, California still has the most severe air pollution problems in the United States;

To meet federal and California Clean Air Act (CAA) emission reduction requirements, CARB must continue to seek reductions from all sources under its authority, including on-road heavy-duty vehicles;

On-road heavy-duty vehicles in California remain significant sources of PM and NOx emissions, which adversely affect the public health and welfare, and the environment;

The operation of heavy-duty vehicles with damaged emissions control systems leads to the release of significant amounts of criteria pollutant emissions;

Timely emissions-related repairs help achieve and maintain emissions benefits from existing heavy-duty vehicle emission standards by ensuring vehicle emissions control systems continue to comply with applicable emissions standards throughout a vehicle's operating life;

The proposed vehicle compliance testing procedures would allow for the use of advanced emission monitoring technologies to detect both NOx and PM related malfunctions of heavy-duty vehicle emission control systems;

The proposed periodic testing requirements would ensure heavy-duty vehicle emission control systems are regularly inspected for potential malfunctions and repaired in a timely manner;

Increasing periodic testing frequency from two times year to four times per year for OBD-equipped vehicles at an appropriate time, and with due regard to initial program implementation experience, would enhance public health benefits and save more lives while maintaining a streamlined and convenient testing method for owners of OBD-equipped vehicles;

The proposed HD I/M tester requirements would help ensure the required testing is performed properly and accurately to better identify vehicles with mal-maintained emission control systems for repairs;

The proposed OBD testing device certification process would ensure that testing devices can accurately identify vehicle emission control systems' mal-maintenance issues;

The proposed compliance certificate requirements would facilitate roadside enforcement inspections of vehicles for compliance with the program in the field.

The proposed compliance certificate linkage to California Department of Motor Vehicle (DMV) registration for California-registered vehicles, similar to the Smog Check program's compliance linkage to DMV registration for light-duty vehicles, would enhance the program enforcement by ensuring only compliant vehicles are registering in California;

The proposed vehicle and emissions monitoring network would enhance CARB's roadside enforcement efforts of the proposed HD I/M Regulation to monitor a larger population of vehicles operating in the State;

The proposed compliance checks by freight contractors, brokers, and freight facilities prior to hiring and dispatching a fleet and/or allowing a vehicle to enter the facility would help enhance the program enforcement by ensuring vehicles operating in California are compliant with the proposed HD I/M Regulation when conducting business operations;

The proposed reporting requirements would ensure CARB's identification of heavy-duty vehicles, fleets, inspectors, and testing equipment subject to the proposed regulation to enhance compliance determinations and identify whether any potential follow up actions are needed to bring an entity back into compliance, which would help enhance the program enforcement;

The proposed referee inspection requirements would provide independent evaluations of vehicles and services to accommodate vehicles with inspection incompatibilities or compliance issues, which would help enhance the program enforcement;

The proposed compliance extension provisions would allow small fleets the ability to request a time extension for demonstrating compliance if the vehicle cannot reasonably be repaired by the compliance deadline due to the unavailability of needed parts;

The proposed annual compliance fee of \$30 would support funding for the State's successful implementation of the proposed HD I/M Regulation.

The legislative requirement specifying one test procedure, in aggregate with the compliance fee, to be reasonably accessible and not exceed a combined cost of \$30, shall be interpreted as the Legislature's desire to help assist low income and small fleets operating in and around the State's disadvantaged communities with the costs of performing a compliance test. Thus, as feasible within the constructs of the funding available for the implementation of the proposed HD I/M Regulation, this low-cost test procedure shall be focused on

supporting emissions reductions and assistance in and around disadvantaged communities.

Without the proposed regulation, a significant portion of the heavy-duty vehicle population operating in California may continue to operate with malfunctioning emissions control systems;

As many major populated regions and economically disadvantaged communities are near heavy trucking traffic areas, by reducing in-use heavy-duty truck emissions, the proposed regulation would help achieve equitable clean air for all Californians;

The proposed sunset of the HDVIP would remove duplicative vehicle inspection requirements;

The proposed amendments to the PSIP would align the smoke opacity limits with those in the proposed HD I/M Regulation to ensure consistency between the two programs. The proposed sunset of the PSIP upon full implementation of the proposed HD I/M Regulation would ensure there is no overlapping and duplicative requirements;

The proposed regulation meets the statutory requirements authorizing the adoption and implementation of a regulation for a HD I/M program for non-gasoline heavy-duty on-road motor vehicles with a gross vehicle weight rating of more than 14,000 pounds as identified in section 44152 of the Health and Safety Code;

The proposed regulation was developed in an open public process, in consultation with affected parties, through numerous public workshops, individual meetings, and other outreach efforts, and these efforts are expected to continue;

No reasonable alternatives to the regulation considered to date, or that have otherwise been identified and brought to the attention of CARB, would be more effective at carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected entities than the proposed regulation; and

The proposed regulation is consistent with CARB's environmental justice policies and does not disproportionately impact people of any race, culture, income, or national origin.

The proposed regulation is exempt from CEQA under California Code of Regulations, title 14, section 15061(b)(3) because substantial evidence in the record shows with certainty that there is no possibility that the proposal may result in a significant adverse impact on the environment.

The proposed regulation is exempt from CEQA under California Code of Regulations, title 14, section 15301 for the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures or facilities involving negligible or no expansion of use.

The proposed regulation is exempt from CEQA under California Code of Regulations, title 14, section 15306 because it is an action taken for purposes of data collection via electronic submission which does not result in serious or major disturbances to an environmental resource.

The proposed regulation is exempt from CEQA under California Code of Regulations, title 14, section 15308 because substantial evidence in the record shows that it will enhance the environment by better protecting the public from health impacts associated with exposure to PM and NOx, the regulatory process involves procedures for protection of the environment, and the proposal will not result in any significant adverse environmental impacts.

Now, therefore, be it resolved that the Board hereby approves for adoption section(s) 2195, 2195.1, 2196, 2196.1, 2196.2, 2196.3, 2196.4, 2196.5, 2196.6, 2196.7, 2196.8, 2197, 2197.1, 2197.2, 2197.3, 2198, 2198.1, 2198.2, 2199, and 2199.1, title 13, and amendments to section 2193, title 13, California Code of Regulations, as set forth in Appendices A-1, A-2.1, and B of the Initial Statement of Reasons released to the public on October 8, 2021.

Be it further resolved that the Board directs staff to modify its proposal to implement a path to transition from two times to four times per year periodic testing for OBD-equipped vehicles over three years. Staff shall make its modified proposal available for a 15-day public comment period. The Executive Officer may present the regulation to the Board for further consideration if warranted, and if not, the Executive Officer shall take final action to adopt the regulation after addressing all appropriate conforming modifications.

Be it further resolved that if there is a possibility that any modifications to the regulation made available for one or more 15-day public comment periods may affect the conclusion of the environmental analysis, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by CARB's regulations at title 17, CCR, section 60004.

Be it further resolved that the Board directs the Executive Officer to determine if additional conforming modifications to the regulation are appropriate. If no additional modifications are appropriate, the Executive Officer shall take final action to adopt the regulation and amendments, as set forth in Appendices A-1, A-2.1, and B of the Initial Statement of Reasons released to the public on October 8, 2021. If the Executive Officer determines that additional conforming modifications are appropriate, the modified regulatory language shall be made available for public comment, with any additional supporting documents and information. The Executive Officer shall consider

written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days. The Executive Officer may present the regulation to the Board for further consideration if warranted, and if not, the Executive Officer shall take final action to adopt the regulation after addressing all appropriate conforming modifications.

Be it further resolved that the Executive Officer shall, upon adoption, submit the proposed regulatory action to the United States Environmental Protection Agency (U.S. EPA) for approval as a revision to the California State Implementation Plan (SIP) as required by the federal CAA. The adopted regulatory action would be submitted as a SIP revision because it proposes regulations intending to reduce emissions of air pollutants to attain and maintain the National Ambient Air Quality Standards promulgated by U.S. EPA under the CAA.

Be it further resolved that the Board hereby determines that the regulations adopted herein will not cause California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards.

Be it further resolved that the Executive Officer shall, upon adoption, forward the regulations to the Environmental Protection Agency with a request for an authorization or confirmation that the regulations are within the scope of an existing authorization pursuant to section 209 subdivision (e)(2)(A) of the CAA, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 21-29 as adopted by the California Air Resources Board.



Katie Estabrook, Board Clerk