State of California
AIR RESOURCES BOARD

CALIFORNIA EVALUATION PROCEDURE FOR NEW AFTERMARKET DIESEL PARTICULATE FILTERS INTENDED AS MODIFIED PARTS FOR 2007 THROUGH 2009 MODEL YEAR ON-ROAD HEAVY-DUTY DIESEL ENGINES

Resolution 16-4

April 22, 2016

Agenda Item No.: 16-4-2

WHEREAS, Health and Safety Code sections 39600 and 39601 authorize the Air Resources Board (ARB 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, in Health and Safety Code section 43000 the Legislature found and declared that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the State, and in Health and Safety Code sections 39002 and 39003 charged the Board with the responsibility of systematically addressing the serious air pollution problem caused by motor vehicles;

WHEREAS, in Health and Safety Code section 43000.5 the Legislature further found and declared that the attainment and maintenance of air quality standards will necessitate the achievement of substantial improvements in the durability of vehicle emission systems;

WHEREAS, Health and Safety Code section 43011 authorizes the Board to establish criteria for the evaluation of the effectiveness of motor vehicle pollution control devices;

WHEREAS, California Vehicle Code section 27156 (VC 27156) prohibits the installation, sale, offer for sale, or advertisement of any device, apparatus, or mechanism intended for use with, or as part of, any required motor vehicle pollution control device or system, which alters or modifies the original design or performance of any such motor vehicle pollution device or system unless the Board finds that the device, apparatus, or mechanism either does not reduce the effectiveness of any required motor vehicle pollution control device or does not result in emissions from a modified vehicle which exceed the applicable emission standards for the vehicle;

WHEREAS, the Board identified diesel particulate matter (PM) as a toxic air contaminant in August 1998, and subsequently approved in September 2000 a comprehensive diesel risk reduction plan (DRRP) to significantly reduce diesel PM emissions from diesel-fueled engines and vehicles by 2020;

WHEREAS, the DRRP identified diesel-fueled heavy duty motor vehicles as a source of diesel PM;

WHEREAS, as an important part of the DRRP, the Board adopted more stringent emission standards for 2007 and subsequent model on-road heavy duty diesel engines (HDDE) and vehicles on October 25, 2001;

WHEREAS, diesel particulate filters (DPF) are devices designed to remove diesel PM from the exhaust gases emitted by diesel engines;

WHEREAS, DPFs are a robust technology that is used and approved worldwide;

WHEREAS, beginning with the 2007 model year, on-road HDDEs were certified equipped with DPFs to meet increasingly stringent diesel emission standards and particularly the emission standards for PM;

WHEREAS, beginning with the 2010 model year, on-road HDDEs were certified with additional emission control technologies, such as selective catalytic reduction to control NOx emissions, and with on-board diagnostic (OBD) systems that were more sophisticated than the engine manufacturer diagnostic (EMD) systems required on 2007 through 2009 model year on-road HDDEs, which distinguishes 2010 and newer model year on-road HDDEs from 2007 through 2009 model year on-road HDDEs;

WHEREAS, due to the differences in emission control technologies and on-board diagnostic requirements between 2007 through 2009 model year, and 2010 and later model year on-road HDDEs, an evaluation procedure for new aftermarket DPFs for 2007-2009 model year on-road HDDEs is not appropriate for assessing new aftermarket DPFs for 2010 later model year on-road HDDEs and vice versa;

WHEREAS, the DPFs on 2007-2009 on-road HDDEs have been in use for a number of years and many have likely exceeded the original equipment manufacturer (OEM) warranty or OEM's extended warranty;

WHEREAS, ARB has adopted regulations and evaluation procedures that are specifically applicable to aftermarket parts used in light and medium-duty vehicles, but due to the extremely different engine and control technologies involved, and the unique considerations presented by HDDEs and DPFs, those current exemption procedures are not appropriate for assessing if new aftermarket DPFs for 2007-2009 model year HDDEs satisfy the exemption criteria of VC 27156;

WHEREAS, owners and operators of 2007-2009 model year on-road HDDEs that need to replace nonfunctional DPFs beyond the OEM warranty period must currently purchase new DPFs from OEMs;

WHEREAS, several companies indicated an interest in selling aftermarket DPFs and requested that ARB develop an exemption criteria to allow aftermarket DPFs that are not functionally identical to OEM DPFs to be legally sold, installed, and used in California;

WHEREAS, in response to these requests, staff proposed amendments to California's existing aftermarket parts regulation that would require manufacturers to demonstrate that aftermarket DPFs for 2007-2009 model year on-road HDDEs, through robust durability and emissions testing, would not incur durability issues, or cause vehicles or engines to exceed applicable emission standards, or cause compatibility problems;

WHEREAS, the proposed amendments require manufacturers to warrant that aftermarket DPFs are free from defects for 2 years from date of installation, and would require installers to provide an installation warranty for 2 years from date of installation to end-users;

WHEREAS, the proposed amendments establish warranty reporting requirements, pre-installation assessments, labeling and record keeping requirements, quality control requirements, a product swapping policy, audit reporting and testing, and recall procedures that essentially mirror the requirements applicable to manufacturers, applicants and installers of other aftermarket parts and verified diesel emission control strategies (VDECS);

WHEREAS, the proposed amendments are in California Code of Regulation, title 13, section 2222 (proposed amendments), as set forth in Appendix A to the Staff Report: Initial Statement of Reasons (ISOR);

WHEREAS, the Board routinely adopts test and evaluation procedures in tandem with regulations to notify parties of the manner in which ARB will determine compliance with applicable standards and technical requirements;

WHEREAS, staff proposed a new procedure to evaluate the compliance of new aftermarket DPFs for 2007-2009 model year on-road HDDEs with the criteria for receiving an exemption from prohibitions of VC 27156 (proposed incorporated evaluation procedure), as set forth in Appendix B to the ISOR;

WHEREAS, ARB's regulatory program that 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,

sub. (d)), and ARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

WHEREAS, staff determined the proposed amendments and the proposed evaluation procedure are exempt from CEQA under California Code of Regulations, title 14, section 15061, subdivision (b)(3) ("common sense" exemption) because the record evidence shows with certainty that there is no possibility that the proposed activity may result in a significant adverse impact on the environment because they voluntary administrative provisions required to sell these modified parts in California, as described in Chapter V of the ISOR;

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:

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 emissions reductions requirements, ARB must continue to seek reductions from all sources under its authority including on-road heavy duty diesel engines;

Diesel PM was identified as a toxic air contaminant in August 1998, and in response, the diesel risk reduction plan was adopted to achieve an 85 percent reduction in diesel PM emissions by 2020;

DPFs are critical components of the emission control systems to reduce diesel PM emissions from 2007 and subsequent model year on-road HDDEs;

Beginning with the 2007 model year, on-road HDDEs were certified with DPFs to meet increasingly stringent diesel emission standards, and particularly the emission standards for PM;

The DPFs on 2007-2009 on-road HDDEs have been in use for a number of years, and have likely exceeded the OEM's warranty or OEM's extended warranty;

Owners and operators of 2007-2009 model year on-road HDDEs that need to replace nonfunctional DPFs beyond the OEM warranty period commonly purchase new DPFs from OEMs in order to comply with applicable emission requirements;

ARB developed exemption procedures that are specifically applicable to aftermarket parts used in light and medium-duty vehicles, but due to the extremely different engine and control technologies involved, and the unique considerations presented by HDDEs and DPFs, those exemption procedures are not appropriate for assessing if aftermarket DPFs for 2007-2009 model year HDDEs satisfy the exemption criteria of VC 27156;

The absence of an exemption procedure for aftermarket DPFs for 2007-2009 model year on-road HDDEs that are not functionally identical to OEM DPFs prevents manufacturers that desire to manufacture and market such aftermarket DPFs from doing so, and also limits the compliance options of owners and operators that need to replace DPFS beyond the original OEM warranty period to purchasing new DPFs from OEMs;

The current aftermarket regulations need to be amended to include provisions for specifically evaluating new aftermarket DPFs for 2007-2009 model year on-road HDDEs, to ensure that the in-use emission performance of HDDEs is not adversely compromised by the use of such aftermarket DPFs, and to ensure that such aftermarket DPFs do not reduce the effectiveness of any required motor vehicle pollution control device;

Staff developed criteria for evaluating new aftermarket DPFs for 2007-2009 model year on-road HDDEs aftermarket DPFs that require manufacturers to demonstrate that aftermarket DPFs, through robust durability and emissions testing, would not incur durability issues, or cause vehicles or engines to exceed applicable emission standards, or cause compatibility problems;

The proposed criteria require manufacturers to warrant that aftermarket DPFs are free from defects for 2 years, which is protective of the consumer and is currently being offered by some aftermarket DPF manufacturers who sell in other states;

Ensuring that approved aftermarket DPFs are properly installed in 2007-2009 HDDEs and vehicles is also critical for realizing the full expected benefits of the proposed regulatory amendments and incorporated evaluation procedure, and the proposed procedure includes pre-installation assessment and installation warranty requirements applicable to installers of approved aftermarket DPFs; this warranty is consistent with other ARB programs emissions defect warranty including verification and aftermarket critical emission control parts on highway motorcycles;

The proposed procedure also requires manufacturers, applicants, or installers to resolve all warranty claims within 30 days to ensure that end-user issues are resolved in a timely manner;

The proposed procedure also establishes warranty reporting requirements, pre-installation assessments, labeling and record keeping requirements, quality control requirements, a product swapping policy, audit reporting and testing, and recall procedures that essentially mirror the requirements applicable to manufacturers, applicants, and installers of other aftermarket parts and VDECS;

The proposed procedure requires both the manufacturer and the installer to submit annual warranty reports of all warranty claims for aftermarket DPFs and additional reporting if the cumulative number of valid warranty claims exceeds four percent; these warranty requirements are consistent with other ARB programs including verification and aftermarket critical emission control parts on highway motorcycles;

The proposed procedure also requires manufacturers or installers of aftermarket DPFs to document and report the applicable sales and/or installation of such DPFs with basic information pertaining to the aftermarket DPFs, engines and vehicles, and the end-users;

The reporting requirements of the proposed amendments that apply to businesses are necessary for the health, safety, and welfare of the people of the State;

The proposed procedure establishes labeling requirements consistent with other aftermarket procedures, the proper labeling of the aftermarket DPF is essential to facilitate identification that the DPF is legal for use in California, and also helps installers to determine an appropriate replacement, if the DPF fails;

The proposed procedure also establishes aftermarket DPF swapping policy to reduce end-users' truck downtime and ensure successful and trackable swapping practices in the field;

The proposed procedure also contains quality control requirements and audit testing provisions to ensure that a manufacturer's production DPFs are identical in all material respects to an exempted DPF, and that production DPFs comply with durability, compatibility and applicable emission standards requirements;

The recall provisions in the proposed procedure provide the necessary corrective actions and tools for protecting health, safety, and welfare of the people of the State and the end-users in California;

Establishing a process that is specifically developed to encourage the development of financially feasible, durable, engine compatible, and emission compliant aftermarket DPFs, will reduce the usage of non-complying exhaust systems and the generation of excess emissions due to tampering;

The proposed amendments are necessary and appropriate in that they alert parties of the manner in which ARB will determine compliance with the aftermarket regulation and the incorporated evaluation procedure for new aftermarket DPFs for 2007-2009 model year on-road HDDEs;

The proposed procedure is not appropriate for assessing if used aftermarket DPFs comply with the exemption criteria of VC 27156; each used DPF has been operated under unique operating conditions, and consequently evaluating each used DPF's capability to meet the criteria of VC 27156 using the proposed procedure would be technically and economically infeasible;

The proposed amendments are voluntary in the sense that manufacturers are not compelled to manufacture or sell aftermarket DPFs;

The economic and fiscal impacts of the proposed amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are as described in Chapter VII of the ISOR, as supplemented by staff's presentation at the hearing of this item;

The proposed amendments and incorporated evaluation procedure meet the statutory requirements that ARB 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 by Health and Safety Code, Division of 26 and by any other provision of law as identified in Health and Safety Code sections 39600 and 39601;

The proposed amendments and incorporated evaluation procedure meet the statutory requirements to establish uniform procedures for compliance with standards which control or eliminate air pollutants from used motor vehicles, as identified in Health and Safety Code sections 43000, subdivisions (a)-(d);

The proposed amendments and incorporated evaluation procedure meet the statutory requirements that the attainment and maintenance of air quality standards will necessitate the achievement of substantial improvements in the durability of vehicle emission systems and that the burden of achieving needed reductions in vehicle emissions be distributed equitably among the various classes of vehicles, including both on- and off-road vehicles, light-duty cars and trucks, and heavy-duty vehicles, to accomplish improvements in both the emissions level and in-use performance and durability of all new motor vehicles, as identified in Health and Safety Code section 43000.5;

The proposed amendments proposed amendments and incorporated evaluation procedure meet the statutory requirements that ARB establish criteria for the evaluation of the effectiveness of motor vehicle pollution control devices, as identified in Health and Safety Code section 43011;

The proposed amendments and incorporated evaluation procedure meet the statutory requirements that California prohibits the installation, sale, offer for sale or advertisement of any device, apparatus, or mechanism intended for use with, or as part of any required motor vehicle pollution control device or system that alters or modifies the original design or performance of the motor vehicle pollution device or system unless the ARB finds that the device, apparatus, or mechanism either does not reduce the effectiveness of any required motor vehicle pollution control device or does not result in emissions from the modified or altered vehicle that exceed the applicable emission standards, as identified in Vehicle Code section 27156;

The proposed amendments and incorporated evaluation procedure establish requirements that differ from the requirements addressed in comparable federal requirements; different California regulations are authorized by the Health and Safety Code and the Vehicle Code and the cost of the different state provisions is justified by the benefit to human health, public safety, public welfare, or the environment;

The proposed amendments and incorporated evaluation procedure were 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 proposed amendments and incorporated evaluation procedure considered to date, or that have otherwise been identified and brought to the attention of ARB, 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;

The proposed and incorporated evaluation procedure are consistent with ARB's environmental justice policies and do not disproportionately impact people of any race, culture, or income; and

The proposed amendments and incorporated evaluation procedure are 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.

NOW, THEREFORE, BE IT RESOLVED the Board approves for adoption amendments to California Code of Regulations, title 13, section 2222, as set forth in Attachment A, and the incorporated "California Evaluation Procedures for New Aftermarket Diesel Particulate Filters Intended as Modified Parts for 2007-2009 Model Year On-Road Heavy-Duty Diesel Engines", as set forth in Attachment B.

BE IT FURTHER RESOLVED the Board directs the Executive Officer to determine if additional conforming modifications to the amendments are appropriate. If no additional modifications are appropriate, the Executive Officer shall take final action to adopt the amendments and the incorporated evaluation procedure, as set forth in Attachment A and B, respectively. 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 amendments to the Board for further consideration if warranted, and if not, the Executive Officer shall take final action to adopt the amendments and incorporated evaluation procedure after addressing all appropriate conforming modifications.

BE IT FURTHER RESOLVED that if any modifications to the amendments made available for one or more 15 day public comment periods affect the conclusion that the amendments are exempt from CEQA, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by ARB's regulations at California Code of Regulations, title 17, sections 60000-60007, and if required, prepare written responses to any comments raising significant environmental issues to present to the Board along with the final regulation order.

I hereby certify that the above is a true and correct copy of Resolution 16-4 as adopted by the Air Resources Board.

Tracy Jensen

Tracy Jensen, Clerk of the Board

Resolution **16-4**

April 22, 2016

Identification of Attachments to the Board Resolution

Attachment A: Proposed amendments California Code of Regulations, title 13, section 2222, as set forth in Appendix A to the Staff Report: Initial Statement of Reasons, released March 1, 2016.

Attachment B: Proposed California Evaluation Procedures for New Aftermarket Diesel Particulate Filters Intended as Modified Parts for 2007-2009 Model Year On-Road Heavy-Duty Diesel Engines, as set forth in Appendix B to the Staff Report: Initial Statement of Reasons, released March 1, 2016.