State of California
AIR RESOURCES BOARD

ADOPTION OF PHASE 1 HEAVY-DUTY VEHICLE GREENHOUSE GAS EMISSION STANDARDS AND TEST PROCEDURES

Resolution 13-50

December 12, 2013

Agenda Item No.: 13-11-1

WHEREAS, sections 39600 and 39601 of the Health and Safety Code 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 section 43000 of the Health and Safety Code, the Legislature has declared that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the State, and sections 39002 and 39003 of the Health and Safety Code charge the Board with the responsibility of air pollution control from motor vehicles;

WHEREAS, sections 43013, 43100, 43101, 43102, and 43104 of the Health and Safety Code authorize the Board to adopt emission standards, in-use performance standards, and test procedures to control air pollution caused by motor vehicles;

WHEREAS, section 43000.5(c) of the Health and Safety Code provides that the burden for achieving needed reductions in vehicle emissions should be distributed equitably among various classes of vehicles, including heavy-duty vehicles to accomplish improvements in both the emissions level and in-use performance and durability of all new motor vehicles;

WHEREAS, sections 43013(a) and (b) of the Health and Safety Code authorize the Board to adopt emission standards and in-use performance standards and other regulations for light-duty, medium-duty, and heavy-duty engines and vehicles that it finds to be necessary, cost-effective, and technologically feasible;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying out section 43018, the Board shall adopt standards and regulations that will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including but not limited to reductions in motor vehicle exhaust and evaporative emissions, and reductions in in-use vehicular emissions through durability, performance improvements, and specification of vehicular fuel composition;

WHEREAS, heavy-duty trucks, buses, and motor homes emitted 23 percent of greenhouse gas (GHG) emissions from on-road vehicles and 8 percent of GHG emissions from all sources in California in 2010;

WHEREAS, sections 39010 and 39601 of the Health and Safety Code provide that a definition set forth in chapter 2 of division 26 of the Health and Safety Code shall govern the construction of the division unless and until rules and regulations are adopted by the Board that revise such definition, and that the Board may revise such definition in order to conform to definitions to federal laws and rules and regulations;

WHEREAS, the Legislature has enacted the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Stats 2006, chapter 488, Health and Safety Code section 38500 *et seq.*), which declares that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and requires a comprehensive multi-year program to reduce California's GHG emissions to 1990 levels by 2020;

WHEREAS, AB 32 added section 38501 to the Health and Safety Code, which expresses the Legislature's findings that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and the Legislature's intent that ARB coordinate with state agencies and consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing AB 32, and design emissions reduction measures to meet the statewide emissions limits for GHGs in a manner that minimizes costs and maximizes benefits for California's economy, maximizes additional environmental and economic co-benefits for California, and complements the State's efforts to improve air quality;

WHEREAS, section 38505 of the Health and Safety Code defines "greenhouse gas" or "greenhouse gases," for purposes of Division 25.5 of the Health and Safety Code as including all of the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride;

WHEREAS, section 38510 of the Health and Safety Code designates ARB as the State agency charged with monitoring and regulating sources of GHG emissions that cause global warming in order to reduce such emissions;

WHEREAS, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions from sources or categories of sources, subject to the criteria and schedules set forth in part 4 of division 25.5 of the Health and Safety Code;

WHEREAS, in recognition of the devastating impacts of climate change emissions on California, Governor Schwarzenegger, in June 2005, enacted Executive Order S-3-05 which established the following GHG emission targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emission 80 percent below 1990 levels;

WHEREAS, Governor Brown in Executive Order B-16-12 reaffirmed a 2050 GHG emission reduction target for the transportation sector of 80 percent below 1990 levels;

WHEREAS, the United States Environmental Protection Agency (U.S. EPA) and the National Highway Traffic Safety Administration (NHTSA), on behalf of the federal Department of Transportation, jointly issued a Final Rule titled "Greenhouse Gas Emission Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles," (76 Fed. Reg. 57106 (September 15, 2011), effective November 14, 2011, and informally known as the "U.S. Phase 1" GHG program;

WHEREAS, the U.S. Phase 1 GHG regulations, which apply to new 2014 and subsequent model year medium- and heavy-duty engines and vehicles, constitute the first national GHG emission standard requirements for medium- and heavy-duty engines and vehicles;

WHEREAS, the complementary NHTSA fuel efficiency standards will reduce fuel usage from the medium- and heavy-duty on-road vehicle fleet, thereby improving energy security and reducing transportation costs;

WHEREAS, the U.S. Phase 1 GHG regulations establish carbon dioxide (CO2), and other GHG (nitrous oxide (N2O) and methane (CH4)) emission standards for medium- and heavy-duty engines used in heavy-duty vehicles, with the standards for gasoline engines applying to 2016 and later model year engines, and the standards for diesel engines applying to 2014 and later model year engines;

WHEREAS, the U.S. Phase 1 GHG regulations also establish CO2 emission standards applicable to three specified vehicle classes: Class 7 and Class 8 tractors, vocational vehicles (refuse trucks, concrete mixers, ambulances, etc., with gross vehicle weight ratings (GVWR) from 8,500 to over 33,000 pounds) and heavy-duty pickups and vans (with GVWR between 8,501 pounds and 14,000 pounds), and establish CH4 and N2O limits applicable to heavy-duty pickups and vans;

WHEREAS, the U.S. Phase 1 GHG standards for Class 7 and Class 8 tractors are based on vehicle-based attributes related to GHG emissions, including the vehicle's GVWR, the roof height of the cab, and associated day cab or sleeper cab characteristics;

WHEREAS, the U.S. Phase 1 GHG regulations require manufacturers of Class 7 and Class 8 tractors and vocational vehicles to only install engines that have been certified to meet applicable GHG standards in those tractors or vocational vehicles;

WHEREAS, the U.S. Phase 1 GHG regulations explicitly regulate vocational vehicle chassis manufacturers and not the body builders of vocational vehicles;

WHEREAS, the U.S. Phase 1 GHG regulations establish a combined vehicle and engine standard for heavy-duty pickups and vans that vehicle manufacturers must meet on a fleet average basis;

WHEREAS, the U.S. Phase 1 GHG regulations establish hydrofluorocarbon emission standards applicable to Class 7 and Class 8 tractors and heavy-duty pickups and vans to address vehicle-based refrigerant leakage from air conditioning systems;

WHEREAS, the U.S. Phase 1 GHG regulations provide regulated entities with a variety of compliance methods and credit opportunities, including an alternative compliance path that begins with 2013 model year engines and vehicles, programs that allow manufacturers to average, bank, and trade credits, and incentives for the early introduction of advanced technologies, including electric vehicles and hybrid technologies;

WHEREAS, U.S. EPA thoroughly evaluated the technical feasibility of its Phase 1 GHG standards as part of its 2011 rulemaking and concluded that the technologies likely to be used to comply with the standards are currently available in the marketplace;

WHEREAS, in developing and adopting its Phase 1 GHG standards, U.S. EPA anticipated that ARB would subsequently adopt the same standards, and ARB has generally harmonized California's heavy-duty engine emission standards with the corresponding federal emission standards since the 1990s to ensure consistent nationwide emission standards apply to the trucking industry;

WHEREAS, the proposed regulations would establish GHG standards for new 2014 and subsequent model year California medium- and heavy-duty engines and vehicles that are identical to those in the U.S. EPA's Phase 1 GHG regulation;

WHEREAS, the proposed regulations would apply to motor vehicles with a GVWR of 8,500 pounds or greater, and the engines that power such motor vehicles, except for medium-duty passenger vehicles subject to ARB's Low Emission Vehicle program;

WHEREAS, to maintain consistency with the compliance provisions in the federal program and to minimize manufacturers' compliance burdens, the proposed regulations would allow manufacturers to comply with the proposed California Phase 1 GHG standards for new 2014 through 2022 model year California medium- and heavy-duty engines and vehicles by demonstrating compliance with U.S. EPA's Phase 1 GHG regulation;

WHEREAS, although the proposed regulations would essentially align California and federal GHG requirements for medium- and heavy-duty engines and vehicles, the

proposed regulations would incorporate minor distinctions from U.S. EPA's Phase 1 GHG regulation:

- The proposed regulations would define the federal term "urban bus" in 40, Code of Federal Regulations (CFR) section 86.012-2 as "GHG urban bus," in order to maintain California's existing definition for urban bus as set forth in title 13, California Code of Regulations (CCR) section 2023(a)(13) "Fleet Rule for Transit Agencies," which defines urban buses as powered by heavy-duty diesel engines;

- Engine manufacturers electing to certify California-only engine families would be allowed to use either ultra-low sulfur diesel grade test fuel as specified in Table 1 of Part 40, CFR 1065.703 (CFR, 2013), or a test fuel specified in "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles";

- Engine and vehicle manufacturers that are "deemed to comply" with the proposed California GHG standards for medium and heavy-duty engines and vehicles by demonstrating compliance with U.S. EPA's Phase 1 GHG program would be required to submit data on the number of engines and vehicles produced for sale in California, instead of nationally, in the end of year final reports;

- Vehicle manufacturers certifying 2020 and subsequent model year medium-duty vehicles from 8,500 to 10,000 pounds GVWR for sale in California would be required to certify such vehicles using chassis-based test procedures and chassis-based emission standards, whereas U.S. EPA's Phase 1 GHG regulation allows manufacturers to certify medium-duty vehicles from 8,500 to 10,000 pounds GVWR either to engine dynamometer or vehicle chassis based emission standards (depending on whether the vehicle is certified as a complete or incomplete vehicle for criteria emission standards); and

- U.S. EPA's Phase 1 GHG regulation allows engine manufacturers to remove the automatic engine shutdown system from a vehicle if the vehicle has accrued 1.29 million miles, whereas California's existing air toxic control measure to limit extended idling of diesel heavy-duty vehicles does not allow automatic engine shutdown systems to be removed during the life of the vehicle.

WHEREAS, pursuant to the authority of the California Global Warming Solutions Act of 2006 (AB 32; Stats 2006, chapter 488, Health and Safety Code section 38500 et seq.), ARB adopted the Heavy-Duty Vehicle GHG Emission Reduction regulation (hereinafter "Tractor-Trailer GHG regulation"), which became effective January 1, 2010, and is set forth at title 17, CCR sections 95300 to 95311;

WHEREAS, the Tractor-Trailer GHG regulation requires long-haul tractor-trailer combination vehicles be either SmartWay certified or to be retrofitted with SmartWay

verified technologies that improve fuel efficiency and reduce GHG emissions by reducing aerodynamic drag and tire rolling resistance;

WHEREAS, after a public hearing on December 16, 2010, the Board approved the adoption of amendments to the Tractor-Trailer GHG regulation, which became effective on January 11, 2012 (2010 Amendments);

WHEREAS, the Board adopted emergency amendments to the Tractor-Trailer GHG regulation in 2012 to address an oversight that affected a registration deadline, compliance schedules, and annual reporting deadlines for the optional trailer fleet compliance plans;

WHEREAS, ARB has requested that U.S. EPA take appropriate action under the federal Clean Air Act section 209(b) in granting California a waiver of preemption for the Tractor-Trailer GHG regulation;

WHEREAS, the Tractor-Trailer GHG regulation requires new 2011 and subsequent model year sleeper-cab tractors that haul 53-foot or longer box-type trailers on California highways to be SmartWay certified beginning January 1, 2010, and requires new 2011 and subsequent model year day-cab tractors that haul 53-foot or longer box-type trailers on California highways to be equipped with low-rolling resistance (LRR) tires meeting SmartWay specifications beginning January 1, 2010;

WHEREAS, the Tractor-Trailer GHG regulation requires 2010 and earlier model year sleeper-cab tractors and day-cab tractors that haul 53-foot or longer box-type trailers on California highways to be equipped with LRR tires that meet SmartWay specifications beginning January 1, 2013;

WHEREAS, the Tractor-Trailer GHG regulation requires new 2011 and subsequent model year 53-foot or longer dry-van or refrigerated-van trailers pulled by Class 7 or Class 8 tractors on California highways to either be SmartWay certified or retrofitted with SmartWay verified aerodynamic technologies and equipped with LRR tires that meet SmartWay specifications beginning January 1, 2010;

WHEREAS, the Tractor-Trailer GHG regulation requires 2010 and earlier model year 53-foot or longer dry-van or refrigerated-van trailers pulled by Class 7 or Class 8 tractors on California highways to either be SmartWay certified or retrofitted with SmartWay verified aerodynamic technologies by January 1, 2013, and equipped with LRR tires that meet SmartWay specifications either by January 1, 2017 or by the applicable compliance year, if participating in a compliance phase-in plan;

WHEREAS, U.S. EPA's Phase 1 GHG regulation established CO2 standards that apply to high-roof sleeper-cab and day-cab tractors regardless of the type of trailer they are hauling, or even if they are not hauling trailers, and will therefore result in GHG emission reductions that are at least as great as those attributable from the Tractor-Trailer GHG regulation;

WHEREAS, neither the proposed regulations nor U.S. EPA's Phase 1 GHG regulation regulate trailers hauled by Class 7 or Class 8 tractors on California highways;

WHEREAS, as described in Resolution 13-51, staff is proposing to amend the Tractor-Trailer GHG regulation in conjunction with the proposed adoption of the regulations to ensure that California's GHG requirements are consistent with U.S. EPA's Phase 1 GHG requirements;

WHEREAS, the proposed regulations would add a definition of "emission standard" to be consistent with the definition of standard as it applies to emissions from motor vehicles and motor vehicle engines under Title II of the federal Clean Air Act, as set forth in Engine Manufacturers Association v. South Coast Air Quality Management District (2004) 541 U.S. 246, 253, 124 S.Ct. 1756, 1762 (EMA) for purposes of clarity, consistency, and conformity;

WHEREAS, the proposed regulations would amend title 13, CCR, sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147, and adopt new sections title 17, CCR, 95660, 95661, 95662, 95663, and 95664, including the following test procedures that are incorporated by reference herein: proposed new test procedure entitled "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles," which would be incorporated by reference in title 17, CCR, 95663(c); proposed amended test procedure "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(b); proposed amended test procedure "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines," last amended April 18, 2013, incorporated by reference in title 13, CCR, 1956.8(d);

WHEREAS, ARB staff prepared a staff report entitled "Initial Statement of Reasons (ISOR) for Proposed Rulemaking, Proposed Greenhouse Gas (GHG) Regulation for Medium- and Heavy-Duty Engines and Vehicles, Optional Reduced Emission Standards for Heavy-Duty Engines, and Amendments to the Tractor-Trailer GHG Regulation, the Diesel-Fueled Commercial Motor Vehicle Idling Rule, and the Heavy-Duty Hybrid-Electric Vehicles Certification Procedures" which presents the rationale for the proposed amendments and incorporated certification test procedures;

WHEREAS, the ISOR and proposed regulatory language were made available to the public for at least 45 days prior to the public hearing to consider the proposed GHG Regulations for Medium- and Heavy-Duty Engines and Vehicles;

WHEREAS, the California Environmental Quality Act (CEQA) requires that a public agency not approve a project as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental impacts of such a project; in the event that specific economic, social, or

other conditions make infeasible the alternatives or mitigation measures, the project may be approved if it is determined that any remaining unavoidable significant impacts are acceptable due to overriding considerations;

WHEREAS, Public Resources Code section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program;

WHEREAS, that portion of the ARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary of Resources Agency (CEQA Guidelines, section 15251(d));

WHEREAS, in accordance with ARB's certified regulatory program at title 17, CCR, section 60005 (b), and the policy and substantive requirements of CEQA, as part of the ISOR, ARB staff prepared an assessment of the potential for significant adverse and beneficial environmental impacts associated with the proposed amendments;

WHEREAS, the environmental analysis, circulated with the ISOR for 45 days, concluded the proposed amendments would result in no adverse impacts to the environment;

WHEREAS, no comments were received during the 45-day comment period that raise significant environmental issues, therefore, no approval of written responses to such comments is required per title 17, California Code of Regulations, section 60007;

WHEREAS, the Board has considered the impact of the proposed regulations and amendments on the economy of the State and the potential for adverse economic impacts on California business enterprises and individuals;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code; and

WHEREAS, in consideration of the information in the public record, including the ISOR, written comments, and testimony provided at the hearing, the Board finds that:

> Medium- and heavy-duty vehicles greater than 8,500 pounds GVWR are significant sources of oxides of nitrogen (NOx), particulate matter (PM), and GHG emissions in California, and emitted approximately 69 percent of the NOx emissions and approximately 38 percent of the PM emissions from on-road vehicles in California in 2013;
>
> Heavy-duty trucks, buses, and motor homes emitted 23 percent of the GHG emissions from on-road vehicles and 8 percent of the GHG emissions from all sources in California in 2010;

Reducing criteria and GHG emissions from medium and heavy-duty vehicles is an important element of ARB's programs to meet the heath based ambient air quality standards, reduce the toxic risk from exposure to diesel PM, and reduce the GHG emissions that contribute to climate change;

The California Global Warming Solutions Act of 2006, AB 32, required ARB to identify a list of "discrete early action" GHG reduction measures to be adopted by 2010 and to develop and approve a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The initial Scoping Plan was developed by ARB in 2008 and, must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. ARB is in the process of developing the 2013 Update to the Climate Change Scoping Plan that will highlight California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan as well as define ARB's climate change priorities for the next five years. The 2013 Update will also lay the groundwork to start the transition to the post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. Meeting the post-2020 goal of reducing GHG emission levels to 80 percent below 1990 levels by 2050 will require California to steadily reduce emissions from every sector. The proposed California Phase 1 GHG regulations would provide GHG emission reductions that help California meet these targets;

The proposed regulations and incorporated certification procedures were developed in an open public process, in consultation with affected parties through numerous public workshops, individual meetings, and other outreach efforts;

The proposed regulations were developed using the best available economic and scientific information and will achieve the maximum technologically feasible and cost-effective GHG emission reductions from medium and heavy-duty engines and vehicles;

The proposed regulations would establish GHG standards for new 2014 and subsequent model year California medium- and heavy-duty engines and vehicles that are identical to those in the U.S. EPA's Phase 1 GHG regulation, which apply to new 2014 and subsequent model year federally certified medium- and heavy-duty engines and vehicles;

The proposed regulations would maintain consistency with the compliance provisions in the federal program and would minimize manufacturers' compliance burdens by allowing manufacturers to comply with the proposed California Phase 1 GHG standards if they demonstrate compliance with U.S. EPA's Phase 1 GHG regulation;

U.S. EPA thoroughly evaluated the technical feasibility of its Phase 1 GHG standards as part of its 2011 rulemaking and concluded that the technologies likely to be used to comply with the standards are currently available in the marketplace;

Because ARB is proposing to harmonize California's Phase 1 GHG standards with U.S. EPA's Phase 1 GHG standards, U.S. EPA's technical feasibility analysis as contained in the following documents: Final Rulemaking to Establish Greenhouse Gas Emission Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Regulatory Impact Analysis, U.S. EPA-420-R-11-901, August 2011 and Final Rule, Greenhouse Gas Emission Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, 76 Fed. Reg. 57106 (September 15, 2011) is applicable to the proposed regulations;

The proposed regulations permit effective enforcement of the proposed GHG emission standards in California such that real emission reductions can be verified and achieved;

The proposed definition of emission standard, exhaust emission standards and evaporative emission standards are necessary for purposes of clarity, consistency, and conformity with federal laws and is needed to ensure that California's authority to adopt and to enforce emission standards and other emission-related requirements for mobile sources is coextensive with those provisions of section 209 of the federal Clean Air Act that establish the parameters of California's unique authority to regulate new on-road mobile sources;

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

It is appropriate to accept compliance with the U.S. Phase 1 GHG regulation as compliance with the proposed Phase 1 GHG standards for model years 2014 through 2022, except that California will maintain its own reporting requirements;

The requirements of the proposed regulations are similar but not identical to requirements in U.S. EPA's Phase 1 GHG regulations; the different California requirements are authorized by the Health and Safety 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 regulations would provide engine and vehicle manufacturers a GHG compliance option for 2014 through 2022 model year medium- and heavy-duty engines and vehicles by allowing such manufacturers to demonstrate that

such engines and vehicles comply with U.S. EPA's Phase 1 GHG program; manufacturers not need to utilize this "deemed to comply" option, but even if every manufacturer elects to exercise this option in every model year, doing so would provide GHG emission reductions for California equivalent to those provided by the U.S. Phase 1 GHG regulation because the proposed regulations largely mirror the requirements in U.S. EPA's Phase 1 GHG regulations, and because manufacturers are required to comply with U.S. EPA's Phase 1 GHG regulations beginning with the 2014 model year;

The proposed regulations are necessary, appropriate, and technologically feasible;

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 set forth in the ISOR, as supplemented by staff's presentation at the hearing of this item;

Overall, the proposed amendments are not anticipated to impose any costs on regulated entities other than the requirement for manufacturers to provide a copy of submitted materials and some California-specific reporting data to California, which is expected to cost no more than $1000 per manufacturer for report reproduction and postage; and

No reasonable alternative considered, or that has otherwise been identified and brought to the attention of ARB, would be more effective at carrying out the purpose for which the amendments are proposed, or would be as effective as and less burdensome to affected private persons and businesses than the proposed regulations and amendments.

On the basis of the whole record, including the environmental analysis included in the ISOR and comments received, there is no substantial evidence that the proposed regulation will result in any significant adverse impacts on the environment; and

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

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves for adoption the proposed amendments to title 13, CCR, sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147 and the proposed adoption of subarticle 12, title 17, CCR, sections 95660, 95661, 95662, 95663, and 95664, as set forth in Attachment A hereto; to the incorporated "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles," as set forth in Attachment B hereto; to the incorporated "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and

Vehicles," as set forth in Attachment C hereto; and to the incorporated "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles," as set forth in Attachment D hereto, with the modifications shown in Attachment E hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to make the modified regulatory language and any additional supporting documents and information available to the public for a period of at least 15 days, provided such modifications do not alter the conclusion of the environmental analysis, and provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such further modifications as may be appropriate in light of the comments received, shall make those modifications available for public comment for at least 15-days, and shall present the regulation to the Board for further consideration if he determines that this is warranted. Upon the Executive Officer addressing the need for any additional conforming modifications as appropriate and making such modifications, if any, publicly available for comment, the Executive Officer shall take final action to adopt the regulation, as set forth in the Attachments hereto and in any subsequent modifications that have been made publicly available for comment.

BE IT FURTHER RESOLVED if it is determined that any 15-day modifications to the regulation affect the conclusion of the environmental analysis, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by ARB's regulations at title 17, CCR, sections 60001-60007, and/or prepare written responses to any comments received raising significant environmental issues to present to the Board for its consideration for approval along with the proposed Final Regulation Order.

BE IT FURTHER RESOLVED that the Board hereby determines that the regulations adopted herein will not cause California's 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 Board hereby finds that separate California emission standards and test procedures are necessary to meet compelling and extraordinary conditions.

BE IT FURTHER RESOLVED that the Board finds that the California emission standards and test procedures as adopted herein will not cause the California requirements to be inconsistent with section 202(a) of the Clean Air Act and raise no new issues affecting previous waiver determinations of the Administrator of the U. S. EPA pursuant to section 209(b) of the Clean Air Act.

BE IT FURTHER RESOLVED that, to the extent such action is necessary, the Executive Officer shall, upon adoption, forward the regulation to U.S. EPA with a request for a waiver or confirmation that the regulations are within the scope of an

existing waiver of federal preemption pursuant to section 209(b) of the federal Clean Air Act, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 13-50, as adopted by the Air Resources Board.

Tracy Jensen

Tracy Jensen, Clerk of the Board

Resolution 13-50

December 12, 2013

Identification of Attachments to the Board Resolution

Attachment A*: Proposed Modifications to the Regulation for "Phase 1 Heavy-Duty Vehicle GHG Emission Standards and Test Procedures," CCR, title 13, sections 1900, 1956.8, 2036, 2037, 2112, 2139, 2140, and 2147, and title 17, sections 95660, 95661, 95662, 95663, and 95664, as set forth in Appendix I-A to the Staff Report: Initial Statement of Reasons, released October 23, 2013.

Attachment B*: Proposed Modifications to "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel-Engines and Vehicles," as set forth in Appendix I-A-1 to the Staff Report: Initial Statement of Reasons, released October 23, 2013.

Attachment C*: Proposed Modifications to "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles," as set forth in Appendix I-A-2 to the Staff Report: Initial Statement of Reasons, released October 23, 2013.

Attachment D*: Proposed Adoption of "California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles," as set forth in Appendix I-A-3 to the Staff Report: Initial Statement of Reasons, released October 23, 2013.

Attachment E: Staff's Suggested Modifications to the Original Proposal (Distributed at the December 12, 2013, ARB hearing)

*Attachments A through D are not attached to the proposed resolution; they are simply described on this page. Only the suggested modifications, Attachment E, are actually attached.