Errata to the DRAFT PROPOSED REGULATION TO REDUCE EMISSIONS OF DIESEL PARTICULATE MATTER, AND OTHER POLLUTANTS FROM IN-USE HEAVY-DUTY DIESEL-FUELED VEHICLES

Table 4, Page 15

The Fleet PM Targets for heavy heavy-duty (HHD) vehicles for compliance years 2011 and 2012 have been corrected in Table 4 on page 15 of the draft proposed regulation. The correct values are shown in underline and the deleted values are shown in ~~strikeout~~.

Please replace page 15 of the draft proposed regulation dated May 12, 2008 with the following errata page.

$$PM\ Target\ Rate = \frac{Sum\ of\ PMTarget_{(HHD)} + Sum\ of\ PM\ Target_{(MHD)}}{Total\ number\ of\ vehicles\ subject\ to\ the\ PM\ fleet\ averaging\ requirement}$$

Where:

$PMTarget_{(HHD)}$ = The PM target (g/mile) from Table 4 for each HHD vehicle subject to the PM fleet averaging requirements.

$PMTarget_{(MHD)}$ = The PM target (g/mile) from Table 4 for each vehicle subject to the PM fleet averaging requirements.

Table 4: Fleet PM Targets
to be Used to Calculate PM Target Rates (g/mile)

Compliance Deadline, as of December 31	*Fleet PM Targets for each compliance deadline*	
	MHD	**HHD**
2010	0.38	0.710
2011	0.29	~~0.510~~ 0.530
2012	0.17	~~0.310~~ 0.320
2013	0.06	0.110
2014	0.06	0.110
2015	0.06	0.110
2016	0.06	0.110
2017	0.06	0.110
2018	0.06	0.110
2019	0.06	0.110
2020	0.06	0.110
2021	0.06	0.110
2022	0.06	0.110

(i) *Optional Requirements for Small Fleets.*

In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a small fleet, as defined in section 2025(d)(23)(D), may elect to meet the following requirements of this section starting December 31, 2012.

(1) A small fleet complying with this option is exempt from performance requirements in 2010 and 2011, but the owner is subject to the reporting requirements of section 2025(n).

(2) One vehicle in a small fleet with engine model year of 2004 or newer equipped with a particulate filter is exempt from the PM and NOx performance requirements until 2017, regardless of the model year of the remaining vehicles in the fleet. Compliance requirements based on fleet size are as follows:

DRAFT PROPOSED REGULATION TO REDUCE EMISSIONS OF DIESEL PARTICULATE MATTER, AND OTHER POLLUTANTS FROM IN-USE HEAVY-DUTY DIESEL-FUELED VEHICLES

Adopt new section 2025, in title 13, article 4.5, chapter 1, California Code of Regulations (CCR) to read as follows: (Note that the entire text of section 2025 set forth below is new language proposed to be added to the California Code of Regulations.)

Section 2025. Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, and Greenhouse Gases from In-Use Heavy-Duty Diesel-Fueled Vehicles

(a) *Purpose.*

The purpose of this regulation is to reduce emissions of diesel particulate matter (PM), oxides of nitrogen and other criteria pollutants, and greenhouse gases from in-use on-road diesel-fueled vehicles.

(b) *Scope and Applicability.*

(1) Except as provided in subsection (c), and except for shuttle vehicles, this regulation applies to all heavy duty diesel-fueled or alternative diesel-fueled vehicles with a manufacturer's gross vehicle weight rating (GVWR) greater than 14,000 pounds, that operate in California. It specifically includes:

(A) Any person, business, federal or other government agency that owns, leases, rents, or operates such a vehicle within California;

(B) Any person, business, federal or other government agency that sells such a vehicle within California;

(C) Any utility that owns, leases, or operates a vehicle subject to the regulation, starting December 31, 2017;

(D) Public agency vehicles with light duty engines that are outside the scope of title 13, section 2022;

(E) Drayage trucks with a manufacturer's GVWR greater than 33,000 pounds, starting December 31, 2017

(F) Vehicles that were designed to be driven on-road even though they might not be registered to be driven on-road;

(G) Schoolbuses, whether owned by a private entity or a public school district or a joint powers authority formed by several public school districts;

(H) Yard trucks with on-road and off-road engines; and

(I) Shuttle vehicles of any gross vehicle weight rating as defined in section 2025(d)(49).

(c) *Exemptions*

This regulation does not apply to:

(1) Vehicles subject to the solid waste collection vehicle rule commencing with title 13, CCR, section 2021;

(2) On-road diesel-fueled heavy-duty vehicles over 14,000 pounds owned or operated by a municipality, that comply with the Best Available Control Technology (BACT) requirements of title 13, section 2022.1(a)(1);

(3) Vehicles subject to the fleet rule for transit agencies commencing with title 13, CCR, section 2023;

(4) Heavy-duty drayage trucks complying with the requirements and compliance deadlines of title 13, CCR, section 2027(d), until December 31, 2017;

(5) Vehicles subject to the rule for mobile cargo handling equipment at ports and intermodal railyards commencing with title 13, CCR, section 2479

(6) Military tactical support vehicles, as described in title 13, CCR, section 1905;

(7) Authorized emergency vehicles as described in California Vehicle Code (Veh. Code), section 165;

(8) Off-road vehicles subject to title 13, CCR, sections 2401, 2421, 2411, 2432, and 2449;

(9) Dedicated snow-removal vehicles as defined in section 2025(d)(10)

(10) Two-engine cranes as defined in title 13, CCR, section 2449(c)(56).

(11) Historic vehicles as defined in section 2025(d)(27); and

(12) Motor homes for non-commercial private use.

(d) *Definitions*

For purposes of this regulation, the following definitions apply:

(1) "*Alternative Diesel Fuel*" means any fuel used in diesel engines that is not a reformulated diesel fuel as defined in sections 2281 and 2282 of title 13, of the California Code of Regulations, and does not require engine or fuel system modifications for the engine to operate, other than minor modifications (e.g., recalibration of the engine fuel control) that may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel, Fischer-Tropsch fuels, and emulsions of water in diesel fuel. Natural gas is not an alternative diesel fuel. An emission control strategy using a fuel additive will be treated as an alternative diesel fuel based strategy unless:

   (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or

   (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or

(C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine or vehicle.

(2) "*Alternative Fuel*" means natural gas, propane, ethanol, methanol, gasoline (when used in hybrid electric vehicles only), hydrogen, electricity, fuel cells, or advanced technologies that do not rely on diesel fuel. "Alternative fuel" also means any of these fuels used in combination with each other or in combination with other non-diesel fuels.

(3) "*Alternative-Fueled Engine*" means an engine that is fueled with a fuel meeting the definition of alternative fuel.

(4) "*Base Registration State*" means the state where the vehicle is primarily operated, or from which it is primarily dispatched, or where it is principally garaged or maintained and where the fleet owner has an established place of business.

(5) "*Best Available Control Technology*" (BACT) means the exhaust PM and NOx standards that must be met according to the requirements of section 2025(f).

(6) "*Cab-Over-Engine Truck Tractor*" is a design in which the cab sits over the engine on the chassis. There is no front hood on these tractors.

(7) "*Commercial Vehicle*" means a motor vehicle or combination of motor vehicles as defined in California Veh. Code, section 260.

(8) "*Common Ownership or Control*" means being owned or managed day to day by the same person, corporation, partnership, or association. Vehicles managed by the same directors, officers, or managers, or by corporations controlled by the same majority stockholders are considered to be under common ownership or control even if their title is held by different business entities.

(9) "*Compression Ignition Engine*" means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.

(10) "*Dedicated Snow Removal Vehicle*" means a vehicle that has permanently affixed snow removal equipment such as a snow blower or auger and is operated exclusively to remove snow from public roads, private roads, or other paths to allow on-road vehicle access.

(11) "*Diesel Fuel*" has the same meaning as defined in Title 13, CCR, sections 2281 and 2282.

(12) "*Diesel Particulate Filter*" means an emission control technology that reduces diesel particulate matter emissions by directing the exhaust through a filter that physically captures particles but permits gases to flow through. Periodically, the collected particles are either physically removed or oxidized (burned off) in a process called regeneration.

(13) "*Diesel Particulate Matter (PM)*" means the particles found in the exhaust of diesel-fueled compression ignition engines. Diesel PM may agglomerate and adsorb other species to form structures of complex physical and chemical properties.

(14) "*Diesel PM Index*" for the purposes of section 2025(g)(3)(A) means an indicator of the overall PM emission rate.

(15) "*Diesel PM Target Rate*" means the diesel PM fleet average that a specific fleet must meet in a compliance year in order to show compliance with the fleet average requirements.

(16) "*Drayage Truck*" is the same as defined in title 13, CCR. Section 2027.

(17) "*Dual-Fuel Engine*" means any compression ignition engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber. A dual-fuel engine is not an alternative-fuel engine.

(18) "*Emergency Vehicle*" is as defined in California Veh. Code, section 27156.2.

(19) "*Emergency Operation*" means operation of a vehicle to help alleviate an immediate threat to public health or safety. Examples of emergency operation include repairing or preventing damage to roads, buildings, terrain, and infrastructure as a result of an earthquake, flood, storm, fire, terrorism, or other infrequent act of nature. Emergency operation includes emergency support vehicle travel to and from an emergency event when dispatched by a governmental emergency management agency. Routine operation to prevent public health risks does not constitute emergency operation.

(20) "*Emission Factor*" means diesel PM or oxides of nitrogen (NOx) emission rate in grams per mile (g/mile) as shown in Attachment A. For engines that have been retrofit with VDECS, the PM Emission Factor is reduced by 50 percent for a Level 2 VDECS, and 85 percent for a Level 3 VDECS; the NOx Emission Factor is reduced by the percentage NOx emission reductions that are verified, if any. The PM Emission Factor is not reduced for a Level 1 VDECS.

(21) "*Engine Emission Factor*" means a diesel PM or oxides of nitrogen (NOx) emission rate in grams per mile (g/mile) as shown in Attachment A.

(22) "*Executive Officer*" means the Executive Officer of the ARB or his or her authorized representative.

(23) "*Fleet*" means vehicles subject to this regulation that are owned by a person, business, or government agency. A fleet may consist of one or more vehicles.

(A) "*Rental or Leased Fleets*" - Vehicles that are owned by a rental or leasing company and that are rented or leased by the same lessee for a period of one year or more may be excluded from the rental company's fleet and

included in the fleet of the lessee only if such arrangement is delineated in the written lease agreement.

Vehicles that are rented or leased for a period of less than one year must be included in the fleet of the rental company.

Vehicles and engines subject to this regulation that are owned by a lessor and leased to a lessee under a "lease" as defined in California Uniform Commercial Code, section 10103(a)(10), for a duration of at least one year, dated prior to the effective date of these regulations, are considered part of the fleet of the lessee rather than the lessor.

A vehicle leased to a lessee is considered part of the fleet of the lessor if a written lease prohibits the lessee from modifying the leased vehicle to comply with this regulation.

(B) "*Federal Fleets*" means vehicles in fleets owned by agencies of the United States of America and departments, divisions, public corporations, or public agencies of the United States.

(C) "*Schoolbus Fleet*" means the vehicles in a fleet that meet the definition of schoolbus given in section 2025(d)(48). The schoolbus fleet is to be considered a separate fleet if a fleet owner has vehicles other than schoolbuses that must comply with the performance requirements of section 2025(e)(1).

(D) "*Small Fleet*" means a fleet with three or fewer vehicles. When determining fleet size, all of the vehicles under common ownership and control must be counted.

(24) "*Heavy-Duty Pilot Ignition Engine*" means an engine designed to operate using an alternative fuel, except that diesel fuel is used for pilot ignition at an average ratio of no more than one part diesel fuel to ten parts total fuel on an energy equivalent basis. An engine that can operate or idle solely on diesel fuel at any time does not meet this definition.

(25) "*Heavy Heavy-Duty Diesel Vehicle (HHD)"* for the purposes of this regulation, means a diesel motor vehicle having a manufacturer's loaded vehicle weight rating greater than 33,000 pounds.

(26) "*Highest Level Verified Diesel Emission Control System (VDECS)* " means the highest level VDECS verified by ARB under its *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emission from Diesel Engines (Verification Procedure)*, title 13, CCR, sections 2700-2710, for a specific engine as of 10 months prior to the compliance date, which the diesel emission-control strategy manufacturer and authorized diesel emission-control strategy dealer agree can be used on a specific engine and vehicle combination without jeopardizing the original engine warranty in effect at the time of application.

(A) The highest level VDECS is determined solely on verified diesel PM reductions, not based on verified NOx reductions. Plus designations do not affect the diesel PM level assigned to a VDECS; that is, a Level 3 Plus is the same diesel PM level as Level 3.

(B) Level 1 devices are never considered highest level VDECS for the purpose of this regulation.

(27) "*Historic Vehicle*" means a vehicle that qualifies for a historical vehicle license plate pursuant to the California Veh. Code, section 5004, and is operated or moved over the highway primarily for the purpose of historical exhibition or other historic vehicle club activities.

(28) "Hybrid Vehicle" means a vehicle that has a combination of an engine and onboard energy storage systems that provide for one or more of the following processes: motive power for starting the vehicle from a stop, motive power for accelerating the vehicle, recapture of energy when the vehicle decelerates. The energy storage systems can be electric, hydraulic, pneumatic or of any other type that recovers its energy directly or indirectly from the engine. In addition, the onboard energy storage systems of the hybrid vehicle can have the capability to supplement its energy from an external power source.

(29) "*International Registration Plan (IRP)*" is a registration reciprocity agreement among states of the United States and provinces of Canada providing for payment of license fees on the basis of total distance operated in all jurisdictions.

(30) "*Loaded Vehicle Weight Rating*" is the greater of Gross Vehicle Weight Rating or Gross Combined Weight Rating as defined in California Veh. Code section 350.

(31) "*Low-use Vehicle*" means a vehicle whose propulsion engine was operated in California for fewer than 1,000 miles and less than 100 hours during the preceding 12-month period from January 1 to the end of December.

(32) "*Medium Heavy-Duty diesel vehicle (MHD)"* for the purposes of this regulation, means a diesel motor vehicle having a manufacturer's loaded vehicle weight rating less than or equal to 33,000 pounds.

(33) "NOx *Mileage Exempt Vehicle*" is a heavy heavy-duty diesel vehicle that is operated fewer than 7,500 miles and less than 250 hours per year, or a medium heavy-duty vehicle that is operated fewer than 5,000 miles and less than 175 hours per year, regardless of where the vehicle is operated, and is exempt, from the NOx performance requirements during the compliance years specified in section 2025(l)(1).

(34) "*Motor Carrier*" is the same as defined in California Veh. Code section 408 for fleets other than those that are comprised entirely of schoolbuses. For such schoolbus fleets, for the purposes of this regulation, motor carrier means the registered owner, lessee, licensee, school district superintendent, or bailee of any schoolbus, who operates or directs the operation of any such bus or vehicle on either a for-hire or not-for-hire basis..

(35) "*Motor Home*" means a single vehicular unit built on, or permanently attached to, a self-propelled motor vehicle chassis, chassis cab, or van, which becomes an integral part of the completed vehicle, designed for human habitation for recreational or emergency occupancy.

(36) "*New Fleet*" means a fleet that is acquired or that enters California after December 31, 2009. Such fleets may include new businesses or out-of-state businesses that bring vehicles into California for the first time after December 31, 2009.

(37) "*Non-commercial Use*" means any use or activity where a fee is not charged and the purpose is not the sale of a good or service, and the use or activity is not intended to produce a profit.

(38) "*NOx Exempt Areas*" are the following counties – Alpine, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Monterey, Plumas, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Trinity, Tehama, and Yuba.

(39) "*NOx Exempt Vehicle*" is any vehicle identified in this section in paragraphs (A) through (D) below that is exempt from the NOx performance requirements for the compliance years specified in section 2025(l).

A NOx exempt vehicle is:

(A) A schoolbus as defined in section 2025(d)(48); or

(B) A vehicle subject to this regulation that operates exclusively in the NOx exempt areas defined in section 2025(d)(38); or

(C) A vehicle subject to this regulation that is granted a compliance extension under the early action provision of section 2025(i)(1); or

(D) A NOx mileage exempt vehicle, as defined in section 2025(d)(33).

(40) "*NOx Index*" for the purposes of section 2025(h)(2)(B) means an indicator of a fleet's overall NOx emission rate.

(41) "*NOx Target Rate*" means the NOx fleet average that a specific fleet must meet in a compliance year in order to show compliance with the fleet average requirements. The NOx Target Rate varies depending on a fleet's model-year distribution.

(42) "*Oxides of Nitrogen (NOx)"* means compounds of nitric oxide, nitrogen dioxide, and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition, and to the formation of particulate matter.

(43) "*Owner*" means either (A) the person registered as the owner of a vehicle by the California Department of Motor Vehicles (DMV), or its equivalent in another state, province, or country; or (B) a person shown by the registered owner to be legally responsible for the vehicle's maintenance. The person identified as the owner on the registration document carried on the vehicle at the time a citation is issued shall be deemed the owner unless that person demonstrates that another person is the owner of the vehicle. Owner also includes the federal government for vehicles not registered in any state or local jurisdiction and operated by a branch, agency or other department of the federal government.

(44) "*Person*" means an individual, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, government, governmental subdivision, agency, or instrumentality, public corporation, or any other legal or commercial entity.

(45) "*Registered and driven safely on-road*" means a vehicle meets the requirements to be registered for on-road operation in California Veh. Code division 3, chap. 1, article 1, section 4000 et seq. (i.e., required to be registered or could be registered), and the requirements to be driven safely on-road in "Equipment of Vehicles" requirements in Veh. Code division 12, chap. 1, sections 24000 et seq. and "Size, Weight, and Load" requirements in Veh. Code division 15, sections 35000 et seq.

(46) "*Repower*" means to replace the engine in a vehicle with a newer engine certified to lower emission standards for PM or NOx or both as applicable.

(47) "*Responsible Official*" means one of the following:

(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation;

(B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

(C) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the U.S. EPA).

(48) "*Schoolbus*" is a motor vehicle as defined in California Veh. Code, section 545.

(49) "*Shuttle vehicle*" means a diesel-powered motor vehicle of any gross vehicle weight rating with capacity of 10 or more passengers, routinely driving an average of 10 trips per day to or from airport terminals, marine terminals, and rail based stations.

(50) "*Special Equipment*" means specialized vehicles in the categories identified in California Veh. Code, sections 5011, 5015, and 5016.

(51) "*Specialty Farm Vehicle*" means certain types of vehicles used exclusively in the conduct of agricultural operations. For the purposes of this regulation, specialty farm vehicles include the following implements of husbandry:

(A) A lift carrier as defined in Veh. Code section 36005(a);

(B) A spray or fertilizer applicator rig as defined in Veh. Code section 36005(d);

(C) A nurse rig as defined in Veh. Code section 36005 (f);

(D) A row duster as defined in Veh. Code section 36005(g);

(E) A cotton module mover as defined in Veh. Code section 36012;

(F) A silage truck as defined in Veh. Code section 36101(i);

(G) A mixer-feed truck is owned and used by a feedlot, and specially designed and used exclusively for dispensing food to livestock in such feedlot.

(H) A truck tractor or truck tractor and semitrailer combination used exclusively in production or harvesting of melons as defined in Veh. Code section 36101(h)

(I) A truck tractor or truck tractor and semitrailer combination used exclusively in production or harvesting of tomatoes as defined in Veh. Code section 36005(o);

(52) "*Utility*" is the same as defined in title 13, CCR, section 2022(b).

(53) "*Verified Diesel Emission Control System*" (VDECS) means an emissions control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the *Verification Procedures*. VDECS can be verified to achieve Level 1 diesel PM reductions (25 percent), Level 2 diesel PM reductions (50 percent), or Level 3 diesel PM reductions (85 percent). VDECS may also be verified to achieve NOx reductions. See also definition of Highest Level VDECS.

(54) "*VDECS Failure*" means the condition of not achieving the emissions reductions to which the VDECS is verified. Such condition could be due to inappropriate installation, damage, or deterioration during use. If a Level 3 VDECS is emitting visible smoke, it is assumed to have failed.

(55) "*Yard Truck*" means a vehicle, with an on-road or off-road engine, that is specifically designed to move trailers around freight yards. Yard trucks are also known as yard goats, trailer spotters or jockeys.

(e) *Performance Requirements*

Beginning with the applicable effective dates, a fleet owner must comply with the following requirements of this regulation:

(1) Each fleet that does not include schoolbuses must comply with the best available control technology (BACT) requirements of section 2025(f) or the BACT percentage limits of section 2025(g) or the fleet average requirements of section 2025(h). The compliance option need not be the same for each pollutant. The fleet owner may also opt to comply with the early compliance provision of section 2025(l)(1)(A).

(2) Schoolbus fleets, as defined in section 2025(d)(23)(C), must comply with the performance requirements of section 2025(j) and are exempt from NOx performance requirements as provided therein.

(3) Each fleet that includes schoolbuses and other vehicles must meet the following requirements:

(A) The schoolbus fleet must meet the requirements of section 2025(j).

(B) The remaining vehicles, excluding the schoolbuses, must comply with the performance requirements of section 2025(e)(1) above; or the owner may include the schoolbuses in the determination of compliance with the performance requirements of section 2025(e)(1). However, the owner may not use non-schoolbus vehicles to satisfy schoolbus fleet performance requirements of section 2025(j).

(4) If various portions of a fleet are under the control of different responsible officials because they are part of different subsidiaries, divisions, or other organizational structures of a company or agency, the fleet portions may comply with the fleet averaging performance requirements or the BACT percentage limits requirements separately and be reported separately. However, the total number of vehicles under common ownership or control determines the fleet size.

(5) The following is required for a fleet owner who elects to utilize the BACT percent limits option of section 2025(g) or the fleet averaging option of section 2025(h), or the optional requirements for small fleets of section 2025(i) or the special provisions and compliance extensions of sections 2025(l)(1), (2), (3), and (4):

(A) a valid California motor carrier of property number or

(B) a valid identification number assigned by the United States Secretary of the Department of Transportation, or

(C) a valid operating authority number issued by the Public Utilities Commission, as applicable.

(6) A vehicle, other than a schoolbus, that is exempt from the NOx performance requirements must comply with the requirements of section 2025(l)(1).

(7) Small fleets may elect to meet the optional small fleets requirements of section 2025(i).

(8) Information specified in section 2025(n) must be reported to the Executive Officer.

(9) Records must be kept as specified in section 2025(o).

(10) An owner is required to keep each vehicle in compliance with this regulation once it is in compliance, so long as the owner is operating the vehicle in California.

(f) *Best Available Control Technology (BACT) Requirements*

Starting December 31, 2010, a fleet owner who elects to utilize this option must meet the PM BACT requirements of section 2025(f)(1) and the NOx BACT requirements of section 2025(f)(2) for each vehicle within its fleet according to the compliance schedule shown in Table 1.

(1) *PM BACT Standard* – The BACT standard for PM is an engine equipped with the highest level VDECS for PM or an engine originally equipped with a diesel particulate filter by the manufacturer.

Any vehicle that is not equipped with the highest level VDECS for PM must be replaced with one than can be equipped with the highest level VDECS for PM by December 31, 2013.

Until 2013. if an engine cannot be equipped with the highest level VDECS for PM, the owner may be granted a one-year extension of the compliance deadline, based on the evaluation of information submitted to the Executive Officer. Section 2025((n)(7) specifies the required information.

(2) *NOx BACT Standard* – The BACT standard for NOx is

(A) an engine certified to the 2010 model year standard or cleaner or

(B) an engine certified to the 2004 through 2006 emissions standard if it is equipped with a VDECS that reduces NOx exhaust emissions by more than 85 percent; or

(C) an engine certified to the 2007 model year emissions standard if it is equipped with a VDECS that reduces NOx exhaust emissions by more than 70 percent.

Table 1: Best Available Control Technology Compliance Schedule

Compliance Deadline, as of December 31	*Engine Model-Years*	*BACT Requirements*
2010	Pre-1994	PM BACT
2011	2003 – 2004	PM BACT
2012	2005 – 2006	PM BACT
	1994 – 1999	NOx and PM BACT
2013	2000 – 2002	NOx and PM BACT
2014	Pre-1994	NOx and PM BACT
2015	2003 - 2004	NOx and PM BACT
2016	2005 - 2006	NOx and PM BACT
2017	NA	NA
2018	NA	NA
2019	NA	NA
2020	2007	NOx and PM BACT
2021	2008	NOx and PM BACT
2022	2009	NOx and PM BACT

(g) *BACT Percentage Limits.*

(1) A fleet owner who elects to utilize this option must comply with the performance requirements of sections 2025(g)(2), (3), and (4) below and the reporting requirements of section 2025(n).

(2) The fleet must meet the limits in Table 2 for the percentage of the engines that exist in the fleet on December 31 of the compliance year that meet the BACT PM standard requirement specified in section 2025(f)(1).

(3) The fleet must meet the limits in Table 2 for the percentage of the engines that exist in the fleet on December 31 of the compliance year that meet the BACT NOx standard requirement specified in section 2025(f)(2).

(4) If the calculated number of engines in each model-year group required to be brought into compliance with the BACT percentage limits is not equal to a whole number, the owner shall round up to a whole number when the fractional part of the required number of engines is equal to or greater than 0.5, and round down if less than 0.5.

Table 2: Percent of Total Fleet That Must Comply with PM and NOx BACT Standard

Compliance Deadline as of December 31	Percent of Total Fleet Complying with BACT	
	PM Bact	NOx BACT
2010	25%	NA
2011	50%	NA
2012	75%	25%
2013	100%	50%
2014	100%	60%
2015	100%	70%
2016	100%	80%
2017	100%	80%
2018	100%	80%
2019	100%	90%
2020	100%	90%
2021	100%	90%
2022	100%	100%

(h) *Fleet Averaging Option*

(1) A fleet owner who elects to be subject to this option must comply with the fleet averaging requirements of sections 2025(h)(2) and (3) below and the reporting requirements of section 2025(n).

(2) *NOx Fleet Average.*

(A) A fleet owner must demonstrate that on December 31 of each year, starting in 2012 and ending on December 31, 2022, the calculated NOx Index of the applicable portion of the fleet was less than or equal to the calculated NOx Target Rate.

NOx exempt vehicles, as defined in section 2025(d)(39), need not be included in the calculation of the NOx Index or the NOx fleet average for those years that the vehicle is exempt.

(B) *NOx Index*: The following equation is to be used to calculate the NOx Index.

$$NOx\ Index = \frac{Sum\ of\ EF_{(HHD)} + Sum\ of\ EF_{(MHD)}}{Total\ number\ of\ vehicles\ subject\ to\ the\ NOx\ requirements}$$

Where:

$EF_{(HHD)}$ = The NOx emission factor as specified in Attachment A for each heavy heavy duty (HHD) vehicle subject to the NOx requirements, or adjusted as applicable according to paragraphs 1. and 2. below.

$EF_{(MHD)}$ = The NOx emission factor as defined in Attachment A for each medium heavy duty (MHD) vehicle subject to the NOx requirements, or adjusted as applicable, according to paragraphs 1. and 2. below.

1. For engines that have been retrofit with VDECS, the NOx emission factor is reduced by the percentage NOx emission reductions that are verified.
2. For any engine in the fleet, an owner may use the NOx emission factor given in Table A-2 for a 2012 and newer model year engine if the owner can document per section 2025(n)(5) that the engine family is certified to the 2010 NOx emission standard, and not to a Family Emission Limit (FEL) standard, and the engine family was not used in any manufacturer's averaging, banking and trading (AB&T) program. Otherwise, the emission factor given in Table A-2 for a 2010 model-year engine must be used.

(C) *NOx Target Rate*: The following equation is to be used to calculate the NOx Target Rate.

$$NOx\ Target\ Rate = \frac{Sum\ of\ Target_{(HHD)} + Sum\ of\ Target_{(MHD)}}{Total\ number\ of\ vehicles\ subject\ to\ the\ NOx\ requirements}$$

Where:

$Target_{(HHD)}$ = The NOx target from Table 3 for each HHD vehicle subject to the NOx requirements.

$Target_{(MHD)}$ = The NOx target from Table 3 for each MHD vehicle subject to the NOx requirements.

Table 3: Fleet NOx Targets
to be Used to Calculate NOx Target Rates (g/mile)

Compliance Deadline, as of December 31	*Fleet NOx Targets for each compliance deadline*	
	MHD	**HHD**
2012	8.5	14.4
2013	5.8	9.8
2014	4.6	7.8
2015	4.6	7.8
2016	4.0	6.0
2017	4.0	6.0
2018	4.0	6.0
2019	3.2	4.4
2020	3.2	4.4
2021	1.6	3.0
2022	0.8	1.6

(3) *PM Fleet Average*.

(A) A fleet owner must demonstrate that on December 31 of each year, starting in 2010 and ending on December 31, 2022, the PM Index of the applicable portion of the fleet was less than or equal to the calculated PM Target Rate.

(B) *PM Index*. The following equation is to be used to calculate the PM Index:

$$PM\ Index = \frac{Sum\ of\ PMEF_{(HHD)} + Sum\ of\ PMEF_{(MHD)}}{Total\ number\ of\ vehicles\ subject\ to\ the\ PM\ fleet\ averaging\ requirement}$$

Where:

$PMEF_{(HHD)}$ = The PM emission factor (g/mile) as specified in Attachment A for each heavy heavy duty (HHD) vehicle or adjusted according to paragraph 1. below, as applicable.

$PMEF_{(MHD)}$ = The PM emission factor (g/mile) as specified in Attachment A for each medium heavy duty (MHD) vehicle or adjusted as applicable according to paragraph 1. below.

1. For engines that have been retrofit with VDECS, the PM Emission Factor is reduced 50 percent for a Level 2 VDECS, and 85 percent for a Level 3 VDECS; The PM Emission Factor is not reduced for a Level 1 VDECS

(C) *PM Target Rate*: The following equation is to be used to calculate the PM Target Rate

$$PM\ Target\ Rate = \frac{Sum\ of\ PMTarget_{(HHD)} + Sum\ of\ PM\ Target_{(MHD)}}{Total\ number\ of\ vehicles\ subject\ to\ the\ PM\ fleet\ averaging\ requirement}$$

Where:

$PMTarget_{(HHD)}$ = The PM target (g/mile) from Table 4 for each HHD vehicle subject to the PM fleet averaging requirements.

$PMTarget_{(MHD)}$ = The PM target (g/mile) from Table 4 for each vehicle subject to the PM fleet averaging requirements.

Table 4: Fleet PM Targets
to be Used to Calculate PM Target Rates (g/mile)

Compliance Deadline, as of December 31	*Fleet PM Targets for each compliance deadline*	
	MHD	**HHD**
2010	0.38	0.710
2011	0.29	0.510
2012	0.17	0.310
2013	0.06	0.110
2014	0.06	0.110
2015	0.06	0.110
2016	0.06	0.110
2017	0.06	0.110
2018	0.06	0.110
2019	0.06	0.110
2020	0.06	0.110
2021	0.06	0.110
2022	0.06	0.110

(i) *Optional Requirements for Small Fleets.*

In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a small fleet, as defined in section 2025(d)(23)(D), may elect to meet the following requirements of this section starting December 31, 2012.

(1) A small fleet complying with this option is exempt from performance requirements in 2010 and 2011, but the owner is subject to the reporting requirements of section 2025(n).

(2) One vehicle in a small fleet with engine model year of 2004 or newer equipped with a particulate filter is exempt from the PM and NOx performance requirements until 2017, regardless of the model year of the remaining vehicles in the fleet. Compliance requirements based on fleet size are as follows:

(3) *One vehicle* – If the engine model year is 2004 or newer and it is equipped with a diesel particulate filter, the vehicle is exempt from the PM and NOx performance requirements until December 31, 2017.

(4) *Two vehicles* – If by December 31, 2012 the engine model year of one vehicle is 2004 or newer and it is equipped with a diesel particulate filter, the other vehicle is exempt from the PM and NOx performance requirements for 2012. Starting December 31, 2013, the remaining vehicle must meet the PM and NOx performance requirements of section 2025(e)(1).

(5) *Three vehicles* – If by December 31, 2012 the engine model year of one vehicle is 2004 or newer and it is equipped with a diesel particulate filter, the other vehicles are exempt from the PM and NOx performance requirements for 2012. Starting December 31, 2013, the remaining two vehicles must meet the PM and NOx performance requirements of section 2025(e)(1).

(j) *Requirements for Schoolbuses*

Beginning with the applicable effective dates, a schoolbus fleet, as defined in section 2025(d)(23)(C), must comply with the following requirements of this regulation.

(1) Any schoolbus manufactured before April 1, 1977, must be taken out of service no later than December 31, 2011.

(2) Each schoolbus fleet must comply with the best available control technology (BACT) requirements of section 2025(j)(4) or the PM BACT percentage limit requirements of 2025(g) or the fleet averaging option of 2025(h).

(3) By December 31, 2013, all diesel-fueled schoolbuses shall be retrofitted with the highest level VDECS device regardless of the compliance option chosen. Engines equipped with a diesel particulate filter by the engine manufacturer as original equipment are considered in compliance with this regulation.

(4) Each schoolbus fleet owner who chooses the PM BACT option must meet the PM BACT requirement of section 2025(f)(1) according to the compliance schedule shown in Table 5.

(5) If a schoolbus engine cannot be retrofitted with highest level VDECS for PM then the engine shall be replaced and retrofitted with the highest level VDECS by December 31, 2013. The schoolbus may remain in service but must be included in the compliance method calculation described in section 2025(j)(2) and the reporting and record retention requirements in section 2025(j)(9).

(6) After a schoolbus has been retrofitted with a VDECS it must receive a safety inspection from an authorized employee of the department of the California Highway Patrol, as required by title 13, California Code of Regulations (CCR) section 1272(c), prior to its return to service.

Table 5: Best Available Control Technology Compliance Schedule for Schoolbus Fleets

Compliance Deadline, as of December 31	*Engine Model-Years*
2010	Pre-1987
2011	1987 - 1994
2012	1995 - 1999
2013	2000 and newer

(7) *Special Provisions for Schoolbuses*

(A) An owner of a schoolbus fleet may be granted credit for hybrid schoolbuses or alternative fuel schoolbuses according to the provisions of sections 2025(l)(3) and (4), respectively.

(B) Low-use Schoolbuses

1. Schoolbuses that meet the definition of low-use vehicles in section 2025(d)(31) are exempt from the performance requirements of section 2025(j)(2) but the owner must keep records and meet the reporting requirements in accordance with sections 2025(j)(9) and (10).
2. Low-use vehicles need not be included when determining compliance with the BACT percent limits of section 2025(g) or when calculating fleet average indices or target rates for the fleet averaging option of section 2025(h).
3. Schoolbuses that formerly met the low-use vehicle definition, but whose use increases to 100 hours per year or greater or whose mileage increases to 1,000 miles or greater, must immediately meet the performance requirements of section 2025(f), or (g) or (h) for the prior compliance date.

(8) Schoolbuses registered as historic vehicles, as defined in section 2025(d)(27) are not subject to the regulation. ,.

(9) *Reporting Requirements for Schoolbus Fleets*

The schoolbus fleet owner is subject to the reporting requirements below if complying with the PM BACT percentage limit requirements of 2025(g) or the fleet averaging option of 2025(h)(3) or any of the special provisions in section 2025(l).

(A) Each year, from 2010 to 2013, the schoolbus fleet owner must report the information in section 2025(n) except for sections 2025(n)(8)(E), (n)(10)(C), and (n)(11).

(10) *Record Keeping Requirements for Schoolbus Fleets*

The schoolbus fleet owner shall maintain copies of the information reported under section 2025(j)(9)and the records specified in section 2025(o) as applicable.

(11) Schoolbus fleets are subject to the applicable requirements of sections 2025(p) through (u).

(k) *Meeting the Compliance Requirements.*

A fleet may meet the performance requirements of section 2025(e) by applying a VDECS that will achieve PM or NOx reductions or both as required, replacing an engine, or replacing a vehicle.

(1) *New Fleets*. Owners of new fleets must meet the requirements of section 2025(e) and sections 2025 (f), (g), or (h) as applicable, immediately on purchasing vehicles subject to the regulation or bringing such vehicles into the State of California for the first time after December 31, 2010.

(2) *Adding Vehicles.* For fleets not meeting the BACT requirements, within 30 days of adding a vehicle to the fleet, and prior to operating it in California, the owner must report the addition to the Executive Officer, and demonstrate that the fleet complies with the requirements of sections 2025(k)(2)(A) and (B) below.

(A) A fleet owner who elects to utilize the BACT percentage limits option of section 2025(g) may not add vehicles that cause the percentage calculated for the fleet to fall below the percentage for the previous compliance date.

(B) A fleet owner who elects to utilize the fleet averaging requirements of section 2025(h) may not add vehicles that cause the fleet to exceed the fleet average target rates for the previous compliance date.

(3) *VDECS Installation*. Before installing a VDECS on a vehicle, the owner must ensure that:

(A) The VDECS is verified for use with the engine and vehicle, as described in the Executive Order for the VDECS.

(B) Use of the vehicle is consistent with the conditions of the Executive Order for the VDECS.

(C) The diesel emission control strategy is installed in a verified configuration.

(D) The engine to be retrofit is tuned up so that it meets engine manufacturer's specifications prior to VDECS installation.

(E) The VDECS label will be visible after installation.

(4) *VDECS Maintenance*. If a fleet owner installs a VDECS to meet the requirements of section 2025(e), the VDECS must be kept installed until the VDECS fails or is damaged. Requirements for VDECS failure or damage are in section 2025(l)(5). The owner of a vehicle retrofit with a VDECS must ensure all maintenance on the VDECS and engine is performed as recommended by the respective manufacturers.

(l) *Special Provisions and Compliance Extensions.*

A fleet owner may be granted an extension to a compliance deadline based on one of the following reasons.

(1) *Exemption from NOx Performance Requirements.*

To be considered for this exemption, the owner must keep adequate records as described in section 2025(o) and comply with the reporting requirements of section 2025(n).

(A) *Compliance Extension Based on Early Action*. If a fleet owner installs the highest level VDECS for PM on one or more vehicles before December 31, 2009, then the owner may delay compliance with the NOx BACT requirements of sections 2025(f) or the fleet averaging requirements of section 2025(h) until December 31, 2013 for each vehicle that has been retrofitted early.

By December 31, 2013, the vehicle must meet the BACT requirements of section 2025(f), or the owner must comply by including the vehicle in the determination of compliance with the fleet averaging requirements of section 2025(h), or by including the vehicle in the calculation of the number of vehicles in the fleet required to meet the BACT percentage limits of section 2025(g).

(B) *NOx Mileage Exemption*. A NOx mileage exempt vehicle that meets the definition of section (d)(33) is exempt from the NOx performance requirement of sections 2025(f), (g), or (h) until December 31, 2020. During the exemption period, the vehicle remains subject to the PM performance requirements of section 2025(f), (h), or (g).

Vehicles that formerly met the definition of NOx mileage exempt vehicles, but whose hours of use and mileage will increase above the limits specified in section 2025(d)(39), must immediately meet the performance requirements of section 2025(f), or (g), or (h) for the prior compliance date.

(C) *Vehicle Operating Exclusively in NOx Exempt Areas*. A vehicle that operates solely in the NOx exempt areas defined in section (d)(38) is exempt from the NOx performance requirement of sections 2025(f), (g) and (h) until December 31, 2017. During the exemption period, the vehicle remains subject to the PM performance requirements of sections 2025(f), (g), and (h).

(D) Schoolbuses are exempt from the NOx performance requirement as provided in section 2025(j).

(2) *Specialty Vehicles.*

To be considered for the following exemptions, the owner must keep adequate records as described in section 2025(o) and comply with the reporting requirements of section 2025(n).

(A) *Specialty Farm Vehicles*. A specialty farm vehicle, as defined in section 2025(d)(51), is subject to the NOx performance requirements of sections 2025(f) through (g) starting December 31, 2012, but it is exempt from the PM performance requirements of sections 2025(f) through (g) until December 31, 2017, if the model year of the engine is 1994 or newer.

(B) *SpecialtyTractor-Trailer Combinations*.

1. *Cab-over-engine truck tractor* – A tractor with a cab-over-engine design that is used exclusively to pull 57-foot trailers is exempt from the NOx performance requirements until December 31, 2017 provided the engine is of a model year certified to the 2004 – 2006 model-year on-road engine standard or cleaner and the following condition is met:

   a. On the compliance date, all the vehicles in the fleet that do not qualify for the exemption under this section have met the NOx BACT standard of section 2025(f)(2) or have met the fleet average requirements of section 2025(h) with all vehicles in the fleet included in the determination.

(3) *Credit for Hybrid Vehicles*

An owner may be granted a credit for using hybrid vehicles defined in section 2025(d)(28) if the owner can demonstrate that the manufacturer has improved the fuel economy of the hybrid vehicle by at least 20 percent compared to a diesel vehicle of the same model year which performs a similar function and has a similar configuration to that of the hybrid vehicle.

On finding that the owner has provided adequate documentation, the Executive Officer may grant the following credit towards compliance with the fleet average. For each compliance date until December 31, 2017, the number of hybrid vehicles may be doubled in determining the number of vehicles used to calculate the PM and NOx indices and target rates for the percent limits requirements of section 2025(g) and for the fleet averaging option of section 2025(h).

(4) *Credit for Alternative Fuel Vehicles.*

If the vehicle has an alternative fuel engine or heavy-duty pilot ignition engine, it may be included in the fleet average. The NOx index would be based on the standard to which the engine family was certified and the PM index would be zero.

(5) *Failure or Damage of a VDECS.*

In the event of a failure or damage of a diesel emission control strategy, the following conditions apply:

(A) *Failure or Damage During the Warranty Period*. If a VDECS fails or is damaged within its warranty period and the manufacturer or authorized dealer determines that it cannot be repaired, the owner must replace the VDECS with the same level or higher level VDECS for the vehicle within 90 days of the failure.

(B) *Failure or Damage Outside of Warranty Period*. If a VDECS fails or is damaged outside of its warranty period, and it cannot be repaired, and if the fleet could not meet an applicable target for the most recent compliance date without the failed VDECS, then within 90 days of the failure, the owner must replace the failed VDECS with the highest level VDECS available for the engine at time of failure.

(6) *Fuel-Based Strategy VDECS.*

(A) If a fleet owner determines that the highest level VDECS for a large percentage of the fleet would be a Level 2 fuel verified as a diesel emission control strategy, and implementation of this VDECS would require installation of a dedicated storage tank, then the owner may request prior approval from the Executive Officer to allow use of the Level 2 fuel-based strategy across its fleet.

(B) Waiver for Discontinuation of Fuel Verified as a Diesel Emission Control Strategy. If a fleet owner has relied upon a fuel verified as a diesel emission control strategy to meet an applicable fleet average requirement and has to discontinue use of the fuel due to circumstances beyond the fleet owner's control, the fleet owner may apply to the Executive Officer no later than 30 days after discontinuing use of the fuel for a compliance waiver of up to two years to provide it time to return to compliance with the applicable fleet average requirement. The Executive Officer then has 30 days to act upon the request. Fleets that did not meet the fleet average requirements in 2025(g) in the most recent compliance year may not apply for this extension.

(7) *Exemption for Vehicles Used for Emergency Operations.*

For vehicles used both for emergency operations as defined in section 2025(d)(19), and for other purposes, hours of operation and mileage accrued when the vehicle is used for emergency operations do not need to be included when determining whether the vehicle meets the definition of a low-use vehicle or the definition of a mileage exempt vehicle. If the vehicle meets the low-use definition of section 2025(d)(31), it is exempt from the performance requirements of section 2025 (e), but it is subject to the requirements of section 2025(l)(8) for low-use vehicles. If the vehicle meets the mileage exempt definition of section 2025(d)(33), it is exempt from the NOx performance requirements according to section 2025(l)(1).

(8) *Exemption for Low-Use Vehicles.*

(A) Low-use vehicles are exempt from the performance requirements of section 2025(e) but the owner must keep records and meet the reporting requirements in accordance with sections 2025(n) and (o). To be considered a low-use vehicle, the fleet owner must submit engine operation data from a properly functioning odometer and non-resettable hour meter. Hours and mileage used in emergency operations are not counted when determining low-use status. Low use vehicles need not be

included when determining compliance with the BACT percent limits of section 2025(g) or when calculating fleet average indices or target rates for the fleet averaging option of section 2025(h).

(B) Vehicles that formerly met the low-use vehicle definition, but whose use increases to 100 hours per year or greater or whose mileage will increase to 1,000 miles or greater, must immediately meet the performance requirements of section 2025(f), or (g) or (h) for the prior compliance date.

(9) *Exemption for Vehicles Awaiting Sale*

Vehicles in the possession of dealers, financing companies, or other entities who do not intend to operate the vehicle or offer the vehicle for hire, that are operated only to demonstrate functionality to potential buyers or to move short distances while awaiting sale or for maintenance purposes, are exempt from all requirements in section 2025.

(10) *Use of Experimental Diesel Emission Control Strategies.*

If a fleet owner wishes to use an experimental or non-verified diesel emission control strategy, the owner must first obtain approval from the Executive Officer for a compliance extension. To obtain approval, the owner must demonstrate either that (1) a VDECS is not available or not feasible for their vehicle or application, or (2) that use of the non-verified strategy is needed to generate data to support verification of the strategy.

The owner or operator shall keep documentation of this use in records as specified by the Executive Officer.

The application must include emissions data and a detailed description of the control technology demonstrating the experimental control strategy achieves at least a Level 2 diesel PM emission reduction. If the application demonstrates that the strategy achieves at least 50 percent reduction in diesel PM, it may be treated like a Level 2 VDECS. If the application demonstrates that the strategy achieves at least 85 percent reductions in diesel PM, it may be treated like a Level 3 VDECS. If the application demonstrates that the strategy achieves a NOx reduction over 15 percent, the NOx reduction may be counted.

Upon approval by the Executive Officer, each vehicle engine retrofit with the experimental strategy will be allowed to operate for a specified time period necessary to make a determination that the experimental strategy can achieve the projected emissions reductions. The vehicle equipped with the experimental strategy will be considered to be in compliance during the specified time period.

The fleet owner must bring the fleet into compliance prior to the expiration of the experimental diesel emission control strategy extension.

(11) *Compliance Extension for Equipment Manufacturer Delays:*

An owner who has purchased new equipment (including VDECS) or vehicles in order to comply with this regulation, will be excused from immediate compliance if

the new equipment or vehicles have not been received due to manufacturing delays as long as all the conditions below are met:

(A) The equipment or vehicle was purchased, or the owner and seller had entered into contractual agreement for the purchase, at least four months prior to the required compliance date, or – for a VDECS purchased to replace a failed or damaged VDECS – the fleet owner and seller had entered into contractual agreement for the purchase within 60 days of the VDECS failure.

(B) Proof of purchase, such as a purchase order or signed contract for the sale, including specifications for each applicable piece of equipment, must be maintained by the owner and provided to an agent or employee of ARB upon request;

(C) The owner must demonstrate that a downpayment was made for the equipment.

(D) The new equipment or vehicles are immediately placed into operation upon receipt.

(m) *Labeling Requirements*

This section is a placeholder for a labeling requirement, should staff determine that it's necessary.

(n) *Reporting.*

The owner of a fleet is subject to the reporting requirements of section 2025(n) if the owner has elected to utilize the BACT percent limits option of section 2025(g), or the fleet averaging option of section 2025(h), or the special provisions and compliance extensions of section 2025(l).

(1) The owner must notify the Executive Officer of this election in writing by January 31 after the end of each compliance year. The notification must include the name of the responsible official and the location where the records will be kept. If the records will be kept outside California, the owner must also comply with section 2025(p). If a company or agency opts to comply with fleet averaging performance requirements separately for different divisions or subsidiaries according to section 2025(e)(4), then the company or agency must report separately for the different portions of the fleet.

(2) Each year, fleet owners subject to the reporting requirement must report on their fleet as it was on December 31 of the reporting year. They must submit the applicable information set forth in sections 2025(n)(1) through (11) by January 31 following each compliance date. Owners must report annually until the reporting requirement expires or fleets may stop reporting the year after the BACT requirements have been met. Fleets must use forms (paper or electronic) approved by the Executive Officer.

(3) *Owner Contact Information*: Compliance reports must include the information in (A) through (L) below.

(A) Fleet owner's name;
(B) Name of company or agency;
(C) Motor carrier identification number;
(D) Corporate parent name (if applicable);
(E) Corporate parent taxpayer identification number (if applicable);
(F) Company taxpayer identification number;
(G) Street address and mailing address;
(H) Name of responsible person;
(I) Title of responsible person;
(J) Contact name;
(K) Contact telephone number;
(L) Contact email address (if available);

(4) *Vehicle Information*.

Fleet owners must provide a list of all vehicles subject to the reporting requirements along with the information listed in (A) through (L) below for each vehicle:

(A) Vehicle type,
(B) Vehicle identification number,
(C) Vehicle manufacturer,
(D) Vehicle model;
(E) Loaded vehicle weight rating as defined in section 2025(d)(30)
(F) Vehicle model year;
(G) License plate number;
(H) Where the vehicle is registered and type of registration plate;
(I) Whether the vehicle will be designated as a low-use vehicle;
1. For vehicles designated as low-use, fleet owners must report the information listed in section 2025(n)(8)
(J) Whether the vehicle is used for emergency operations;
1. For low-use or mileage exempt vehicles used in emergency operations, fleet owners must report the information listed in section 2025(n)(9).
(K) Whether the vehicle is a specialty vehicle as defined in section 2025(l)(2);
(L) Whether the vehicle is a hybrid vehicle as defined in section 2025(d)(28).
(M) Whether the vehicle is an alternative-fueled vehicle as defined in section 2025(d)(3).

(5) *Engine Information*.

The following information must be reported for each engine that propels a vehicle reported per section 2025(n)(4):

(A) Engine manufacturer;

(B) Engine model;

(C) Engine family,

(D) Engine serial number, and

(E) Engine model year

(6) *Verified Diesel Emission Control Strategies.*

For each VDECS that is installed on an engine listed per section 2025(n)(5), report the following information.

(A) Type of VDECS installed,

(B) VDECS manufacturer,

(C) VDECS family name,

(D) Serial number,

(E) Date installed,

(F) Verification level and year of verification (percent reduction (PM or NOx))

(7) Availability of Highest Level VDECS

The following information must be submitted to the Executive Office with a request for an extension based in the unavailability of highest level VDECS:

(A) Owner contact information, vehicle, and engine information listed in sections 2025(n)(3), (4), and (5).

(B) Description of the reason for the compliance extension for each engine or engine-vehicle combination;

(C) If the VDECS would void the engine warranty, provide a statement from the engine manufacturer or authorized dealer.

(D) If no verified VDECS is commercially available, provide a list of manufacturers that have been contacted and the manufacturers' responses to a request to purchase.

(E) Documentation must be submitted on January 31 following the compliance deadline for each year that the owner is claiming non-availability of the highest VDECS.

(8) *Low-Use Vehicles*.

For vehicles that will be designated as low-use, the fleet owner must report the following information annually for as long as the fleet owns or operates the vehicle:

(A) Owner, vehicle, and engine information identified in sections 2025 (n)(1) through (5);

(B) Mileage from odometer readings taken on January 1 and December 31 of the compliance year.

(C) Two hour-meter readings, one from on or before January 1 and one from on or after December 31 of the compliance year; and

(D) The dates of the odometer and hour meter readings.

(E) The owner of a vehicle operating both inside and outside of California must provide records from a tracking system that can acquire date, time, engine-on, and location data. The minimum data acquisition and reporting requirements for such a system are in section 2025(n)(11). The owner may use other documentation of operation and location, such as IRP records, if they provide the data needed to verify compliance with the low-use vehicle provision of section 2025(l)(8).

(9) *Vehicles used in emergency operation*.

A fleet owner must provide the following information to qualify a vehicle's usage as emergency operation:

(A) Owner, vehicle, and engine information identified in sections 2025 (n)(1) through (6);

(B) Odometer readings to document travel to and from the emergency event; and

(C) Records to document dispatch by the responsible emergency management personnel.

(10) *Vehicles Exempt from the NOx Performance Standard*.

(A) *Exemption Based on Early Action*.

The owner must provide the following information by December 31, 2009.

1. Owner, vehicle, and engine information listed in sections 2025(n)(1) through (5)
2. Information listed in section 2025(n)(6) for the verified diesel emissions control strategy.

(B) NOx *Mileage Exempt Vehicles*.

The owner must provide the following information to demonstrate compliance with the requirements of section 2025(l)(1)(B)

1. Owner, vehicle, and engine information listed in sections 2025 (n)(1) through (5)
2. Information listed in section 2025(n)(6) for the verified diesel emissions control strategy
3. Mileage and hours of use readings on January 1 and December 31 of the compliance year taken from a tracking system that meets the performance requirements specified in section 2025(n)(11). The owner must keep on record the mileage and usage records generated by the tracking system to meet the record keeping requirements of section 2025(o).

4. Evidence that the owner filed a Heavy Highway Vehicle Use Tax Return and was granted a suspension of the tax based on mileage use for the vehicle during the current compliance period.

(C) *Vehicles operating exclusively in NOx-exempt areas*.

The owner must provide the following information to demonstrate compliance with the requirements of section 2025(l)(1)(C):

1. Owner, vehicle, engine information, and VDECS listed in sections 2025(n)(1) through (5);
2. Records from a tracking system that tracks usage submitted in a monthly report format approved by ARB. The system must at a minimum meet the performance requirements specified in section 2025(n)(11) and provide the information listed therein:

(11) *Electronic Tracking System*

(A) The tracking device must acquire date, time, and engine-on data at a minimum of 15 minute intervals, with no more than 30 minute data gaps. The tracking device must also acquire location data for vehicles claiming to operate exclusively in NOx-exempt areas and for vehicles that must document low use in California when their total miles of operation exceeds 1,000 miles.

(B) The tracking records must be collected by an independent entity with no business relationship to the owners of the vehicles being tracked, other than to provide the tracking service.

(C) Summary and detailed records must be kept at the business office or terminal location for the fleet. The records must provide;

1. Vehicle identification number of the vehicle being tracked;
2. Monthly and annual mileage accrued in California;
3. Monthly and annual mileage accrued in the NOx Exempt Areas if claiming the vehicle operates exclusively in NOx-exempt areas, and
4. Monthly and annual hours of engine operation accrued in California.

(12) *Compliance Certification*.

A certification signed by a responsible official or a designee thereof that the information reported is accurate and that the fleet is in compliance with the regulation. The certification must be submitted on a form approved by the Executive Officer. If a designee signs the compliance certification, a written statement signed by the responsible official designating the designee must be attached to the compliance certification and submitted to ARB.

(13) *Changes Since Last Reporting.*

Any additions, deletions, or changes to the fleet must be reported. Such changes may include vehicles removed from the fleet, vehicles added to the fleet through purchase or by bringing into California, vehicles newly defined as low-use or

repowers, and retrofits. If there are no changes, the fleet owner may indicate there are no changes.

(14) *New Fleet Reporting*. New fleets that elect to utilize the BACT percent limits option of section 2025(g) or the fleet averaging option of section 2025(h) must submit the information in section 2025(n)(1) through (5) to ARB prior to operating the vehicles and within 30 days of purchase or bringing such vehicles into the State. Beginning the first December 31 that is more than 30 days after the date of purchase or bringing a vehicle into the State, new fleets must comply with the reporting requirements in section 2025(n).

(o) *Record Keeping.*

(1) The owner of a fleet shall maintain the following records specified in sections 2025(o)(3) through (8) as applicable. The owner shall provide these records to an agent or employee of the ARB within five business days upon request.

(2) The owner of a fleet subject to the reporting requirements of section 2025(n) shall maintain copies of the information reported under section 2025(n), as well as the records described in sections 2025(o)(1) through (6) below.

(3) *Changes Since Last Reporting Period* –

Document any additions, deletions, or changes to the fleet since the last reporting. Documentation may include bills of sale, purchase orders, or other documentation.

(4) *VDECS Failure.*

Maintain records of any VDECS failure and replacement.

(5) *Fuel-based Strategy.*

Documentation of any approval from ARB Executive Officer to use a fuel strategy as in section 2025(l)(6) and the most recent two years' worth of records of purchase that demonstrate usage.

(6) *Experimental Diesel Emission Control Strategy*.

For fleets using an experimental diesel PM control strategy, record of approval from the Executive Officer for use of the experimental diesel control strategy, the test plan and test data used in the experimental diesel control strategy application, and other records as specified in the approval.

(7) *Manufacturer Delay*.

For any vehicles or VDECS for which the fleet owner is utilizing the equipment manufacturer delay provision in section 2025(l)(11), proof of purchase, such as a purchase order or signed contract for the sale, including engine specifications for each applicable piece of equipment or vehicle.

(8) *Required VDECS Kept in the Vehicle.*

(A) VDECS Documentation. For each engine requiring a VDECS to comply with the regulation, the owner shall keep the following documentation in the vehicle and provide it upon request to an agent or employee of the ARB

1. A statement signed by the installer at the time of installation of the VDECS affirming that the VDECS was installed by an authorized installer, and providing the following information for each engine:
   a. The name of the person installing the device
   b. The date the device was installed
   c. Type of VDECS installed,
   d. Manufacturer
   e. VDECS family name,
   f. Serial number,
   g. Its verification level and year of verification.

(p) *Audit of Records*

The vehicle owner must make records available to ARB at its request for audit to verify the accuracy of the records. In the event the records are not made available within 30 days of the request, the ARB may assess penalties for non-compliance. The fleet owner may be required to reimburse the ARB auditor per diem and travel expenses under certain conditions as determined by the Executive Officer.

(q) *Record Retention*

Each owner shall maintain the records for each vehicle subject to the reporting and record keeping requirements of sections 2025(n) and (o) until 3 years after it is retired or January 1, 2025, whichever is earlier. If vehicle ownership is transferred, the seller shall transfer the vehicle records to the buyer. If fleet ownership is transferred, the seller shall transfer the fleet records to the buyer. Dealers must maintain records of the disclosure of regulation applicability required by section 2025(s) for three years after the sale.

(r) *Right of Entry*

For the purpose of inspecting vehicles and their records to determine compliance with this regulation, an agent or employee of ARB, upon presentation of proper credentials, has the right to enter any facility (with any necessary safety clearances) where vehicles are located or vehicle records are kept.

(s) *Disclosure of Regulation Applicability*

Any person selling a vehicle with an engine subject to this regulation in California must provide the following disclosure in writing to the buyer on the bill of sale, “An on-road heavy-duty diesel or alternative-diesel vehicle operated in California may be subject to the California Air Resources Board Regulation to Reduce Particulate Matter and Criteria Pollutant Emissions from In-Use Heavy-Duty Diesel Vehicles. It therefore could be subject to exhaust retrofit or accelerated turnover requirements to reduce emissions of

air pollutants. For more information, please visit the California Air Resources Board website at http://www.arb.ca.gov/dieseltruckdieseltruck

(t) *Compliance Requirement.*

(1) *Vehicle Owner*. The vehicle owner shall comply with all applicable requirements and compliance schedules set forth in this regulation

(2) *Motor Carrier*. The motor carrier or anyone who hires or dispatches vehicles subject to this regulation shall verify that each hired or dispatched vehicle is in compliance with the regulation.

(3) *Lessee and Lessor*. In any contract that a lessor and lessee enter that has an effective date of December 31, 2009 or later, the lease shall clearly specify whether or not the leased vehicles are to be excluded from the owner's fleet for the duration of the lease, or the responsibility will be that of the lessee.

(u) *Non-Compliance.*

Any person who fails to comply with the performance requirements of this regulation, who fails to submit any information, report, or statement required by this regulation, or who knowingly submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this regulation may be subject to civil or criminal penalties under sections 39674, 39675, 42400, 42400.1, 42400.2, 42402.2, and 43016 of the Health and Safety Code. In assessing penalties, the Executive Officer will consider factors, including but not limited to the willfulness of the violation, the length of time of noncompliance, whether the fleet made an attempt to comply, and the magnitude of noncompliance

(v) *Severability*

Any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of this regulation is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the regulation.

Authority and References –

ATTACHMENT A

Table A-1

PM Emissions Factors by Model Year and Loaded Vehicle Weight Rating (g/mile)

Engine Certification Standard Model Year	Less than or equal to 33,000 lbs (MHD)	Greater than 33,000 lbs (HHD)
Pre-1991	1.65	3.36
1991-1993	0.84	1.25
1994-2006	0.43	0.81
2007-2009*	0.06	0.11
2010 and newer*	0.06	0.11

* If the engine is not equipped by the manufacturer with a diesel particulate filter, use the emission factor for the 1994-2006 model years

Table A-2

NOx Emissions Factors by Model Year and Loaded Vehicle Weight Rating (g/mile)

Engine Certification Standard Model Year	Less than or equal to 33,000 lbs (MHD)	Greater than 33,000 lbs (HHD)
2003 and older	14.2	22.0
2004-2006	6.7	12.0
2007-2009	4.0	7.0
2010	2.0	4.4
2011	1.2	2.5
2012 and newer	0.8	1.6

APPENDIX

DRAFT PROPOSED REGULATION ORDER

Amend, or adopt the following sections of title 13, California Code of Regulations, to read as set forth in the following pages. For the amended regulations, only those portions of the existing language containing the proposed modifications are included. All other portions remain unchanged. The proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions compared to the regulation as adopted

Section 2020. Purpose and Definitions of Diesel Particulate Matter Control Measures. (Adopted July 24, 2003; modified February 24, 2005)

Section 2022. Diesel Particulate Matter Control Measure for Municipality or Utility On-road Heavy-duty Diesel-fueled Vehicles

Section 2022.1. Determining Compliance for a Municipality or Utility

Section 2456 Portable Engine and Equipment Registration

Section 2025. Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, and Greenhouse Gases from In-Use Heavy Duty Diesel-Fueled Vehicles

Section 2800 AB32 Heavy-Duty Diesel Greenhouse Gas Reduction Measure

Amend the following sections of title 17, California Code of Regulations, to read as set forth in the following pages.

Section 93116 Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater

Adopt new section 2800, in title 13, article X.X, chapter 1, California Code of Regulations (CCR) to read as follows: (Note that the entire text of section 2800 set forth below is new language proposed to be added to the California Code of Regulations.)

Section 2800. AB32 Heavy-duty Diesel Greenhouse Gas Emissions Reduction Measure

Section 2020. Purpose and Definitions of Diesel Particulate Matter Control Measures. (Adopted July 24, 2003; modified February 24, 2005)

(b) *Definitions*. For the purposes of the rules specified in article 4, the following definitions apply:

"Municipality" means a city, county, city and county, special district, or a public agency of ~~the United States of America or~~ the State of California, and any department, division, public corporation, or public agency of this State ~~or of the United States~~, or two or more entities acting jointly~~, or the duly constituted body of an Indian reservation or rancheria~~.

Section 2022. Diesel Particulate Matter Control Measure for Municipality or Utility On-road Heavy-duty Diesel-fueled Vehicles

(a) *Scope and Applicability***.** Sections 2022, and 2022.1 apply to any municipality or utility that owns, leases, or operates an on-road diesel-fueled heavy-duty vehicle with a 1960 to 2006 model-year medium heavy-duty or heavy heavy-duty engine or a 2007 model-year or newer engine certified to greater than 0.01 grams per brake horsepower-hour particulate emission standard and manufacturer's gross vehicle weight rating greater than 14,000 pounds. These sections do not apply to a vehicle subject to the solid waste collection vehicle rule commencing with title 13, California Code of Regulations, section 2021 or to the fleet rule for transit agencies commencing with section 2023, or to a schoolbus as defined in Vehicle Code section 545, or to a military tactical support vehicle, as described in title 13, California Code of Regulations, section 1905, or to an emergency vehicle as described in California Vehicle Code, section 27156.2, or to an off-road vehicle as described in title 13, California Code of Regulations, sections 2401, 2421, 2411 and 2432.

(1) Light-heavy duty engines. A municipality or utility may apply section 2022 and 2022.1 to light-heavy duty engines that meet the applicability set forth in section (a) provided:

(A) the Executive Officer has received a letter by December 31, 2008 stating the municipality's or utility's intent to comply with this option;

(B) the letter contains the engine information required by section 2022.1(f)(1)for all current and light-heavy duty engines in the fleet as of January 1, 2007, and

(C)the fleet meets the criteria set forth in section 2022.1.

(2) A municipality's light-heavy duty engines that are approved by the Executive Officer to meet section 2022 and 2022.1, are not subject to section 2025, title 13, CCR.

A utility's light-heavy duty engines that are approved by the Executive Officer to meet section 2022 and 2022.1, are subject to section 2025, title 13, CCR starting December 31, 2017.

(b) *Definitions***.** The definitions in section 2020 shall apply to sections 2022, and 2022.1. In addition, the following definitions apply only to sections 2022, and 2022.1.

(5) "Sold Outside of California" means a sale of a vehicle by a municipality or utility to satisfy the definition of "retirement." To satisfy best available control technology requirements a municipality or utility may sell a vehicle to an auction house or re-sale dealer within the State of California, provided that upon final sale, the vehicle shall be registered and operated out of state. The vehicle cannot be registered or operated in the State of California. To meet this definition, a Department of Motor Vehicle registration hold based on the vehicle identification number or "VIN stop" shall be applied to the vehicle prior to sale of the vehicle by the municipality or utility.

(~~6~~7)"Total Fleet" means the total of a municipality's or utility's on-road heavy-duty vehicles with a 1960 to 2006 model-year medium heavy-duty or heavy heavy-duty engine or 2007 model-year or newer engines certified to greater than 0.01 grams per brake horsepower-hour particulate emission standard and a manufacturer's gross vehicle weight rating greater than 14,000 pounds, excluding low usage vehicles; low-population county, low usage vehicles; dedicated snow-removal vehicles; and gasoline fueled vehicles.[1] Total Fleet also includes light-heavy duty engines for municipalities or utilities that opt in under section (a)(1) above.

Section 2022.1. Determining Compliance for a Municipality or Utility.

(c) *Implementation Schedule.*
A municipality or utility shall comply with the schedule in Table 1 - Implementation Schedule for a Municipal and Utility Total Fleet Vehicle, 1960.~~to 2006~~ and newer Model-Year Engines for the specified percentage of vehicles by each applicable compliance deadline.

[1] Gasoline vehicles that do not meet the best available control technology (BACT) requirements specified in title 13, California Code of Regulations, section 2022.1(b)(3) are excluded from the total fleet calculation.

Table 1 - Implementation Schedule for a Municipal and Utility Total Fleet Vehicle, 1960 ~~to 2006~~ and newer Model-Year Engines.

Group	*Engine Model-Years*	*Percentage of Group to Use Best Available Control Technology*	*Compliance Deadline, As of December 31*
1[a]	1960 – 1987	20 60 100	2007 2009 2011
2	1988 – 2002	20 60 100	2007 2009 2011
3	2003 – 2006 (Includes dual-fuel and bi-fuel engines)	50 100	2009 2010
4	2007 and newer certified above the 0.01g/bhp-hr std.	100	2010

[a] An owner may not use Level 1 technology, as classified pursuant to title 13, California Code of Regulations section 2700, as best available control technology on a Group 1 engine or vehicle.

*Municipality or Utility Located in a Low-Population County***.** A municipality or utility that is headquartered in a county in Table 2 may elect to follow the option in Table 3 below in lieu of the implementation schedule in Table 1.

Table 2 – Low-Population Counties

COUNTY	*Population as of July 1, 2005*
ALPINE	1,300
AMADOR	37,600
CALAVERAS	47,800
COLUSA	24,200
DEL NORTE	31,500
GLENN	31,800
INYO	18,800
LAKE	69,200
LASSEN	39,800
MARIPOSA	19,600
MENDOCINO	95,500
MODOC	10,100
MONO	14,200
NEVADA	106,300
PLUMAS	21,900
SAN BENITO	63,600
SIERRA	3,700
SISKIYOU	47,200
SUTTER	90,400
TEHAMA	63,400
TRINITY	13,800
TUOLUMNE	62,200
YUBA	66,000

Table 3 - Implementation Schedule for a Municipality or Utility Located in a Low-Population County or Granted Low-Population County Status

Group	*Engine Model-Years*	*Percentage of Group to Use Best Available Control Technology*	*Compliance Deadline, as of December 31*
1	1960 – 1987	20 40 60 80 100	2009 2011 2013 2015 2017
2	1988 – 2002	20 40 60 80 100	2008 2010 2012 2014 2016
3	2003 – 2006 (Includes dual-fuel and bi-fuel engines)	20 40 60 80 100	2011 2012 2013 2014 2015
4	2007 and newer certified above the 0.01g/bhp-hr standard.	20 40 60 80 100	2011 2012 2013 2014 2015

(3) Accelerated *Turnover Option for Municipality or Utility Located in a Low*-Population *County.* A municipality or utility headquartered in a county listed in Table 2 may elect to follow the option in Table 4 below in lieu of the implementation schedules in Table 1 or 3.

Table 4 – Accelerated Turnover Option for a Municipality or Utility Located in a Low-Population County

Engine Model-Year	*Fleet Percent to Repower with a 1994 or newer engine*	*Compliance Date as of Dec 31*	*Percent of Fleet to use BACT*	*Compliance Date as of Dec 31*
1960 –1993	100%	2020	100%	2025
1994 –~~2006~~ and newer certified above the 0.01g/bhp-hr standard	N/A	N/A	100%	2025

(d) *Compliance Extensions*. A municipality or utility may be granted an extension to a compliance deadline specified in subsection (c) for one of the following reasons:

(1) *Compliance Extension Based on Early Implementation*. A municipality or utility may be granted an extension based on compliance with one or more of the following early implementation schedules, provided the Executive Officer has received a letter by the applicable early compliance deadline stating the municipality's or utility's intent to comply with one of the following conditions and meets the requirements set forth in paragraphs (A), (B), (C) or (D).

(C) If a municipality or utility has implemented BACT on 100 percent of its Group 1 and Group 2 engines by December 31, 2008, then the municipality or utility may follow the alternate implementation schedule for its Group 3 and 4 engines of 20 percent BACT by December 31, 2009, 60 percent BACT by December 31, 2011 and 100 percent BACT by December 31, 2012.

(e) *Diesel Emission Control Strategy Special Circumstances*. A municipality or utility shall maintain the original level of best available control technology on each engine once that engine is in compliance, and will not be required to upgrade to a higher level of best available control technology, except under specified special circumstances, as follows:

(4) *Limited* Use *of Level 1 Diesel Emission Control Strategy.* If a Level 1 diesel emission control strategy is identified as the best available control

technology pursuant to subsection (b), a municipality or utility is subject to the following limitations:

(C) *Group 3 and 4*

1. *Five year limit.* A municipality or utility may use a Level 1 diesel emission control strategy in a Group 3 engine for up to five years. The municipality or utility shall then replace the Level 1 diesel emission control strategy with the best available control technology from subsection (b). The replacement cannot be a Level 1 diesel emission control strategy

Section 2449. General Requirements for In-Use Off-Road Diesel-Fueled Fleets

(b) *Applicability*

Except as provided in the paragraphs below, the regulation applies to any person, business, or government agency who owns or operates within California any diesel-fueled or alternative diesel fueled off-road compression ignition vehicle engine with maximum power of 25 horsepower (hp) or greater that is used in a two-engine crane or to provide motive power in a workover rig or to provide motive power in any other motor vehicle that (1) cannot be registered and driven safely on-road or was not designed to be driven on-road, and (2) is not an implement of husbandry or recreational off-highway vehicle. ~~Vehicles~~ Unless they are workover rigs or two-engine cranes, vehicles that were designed to be driven on-road, have on-road engines, and still meet the original manufacturer's on-road engine emission certification standard are considered on-road and are specifically excluded from this regulation, even if they have been modified so that they cannot be registered and driven safely on-road. Off-road vehicles that were designed for off-road use and have off-road engines are considered off-road and are subject to this regulation, even if they have been modified so that they can be driven safely on-road.

(c) *Definitions*

(56) "Two-Engine Crane" means a mobile diesel-powered machine with a hoisting mechanism mounted on a specially constructed truck chassis or carrier; one engine provides motive power, and a secondary engine is used to lift and move materials and objects.

(e) *Special Provisions/Compliance Extensions*

(14) Two-Engine Cranes – Both engines in a two-engine crane are subject to this regulation. For purposes of the rounding provisions in section 2449.1(a)(2)(a)7., neither engine in the two-engine crane is required to be turned over until the horsepower required to be turned over under section 2449.1(a)(2)(A) is at least half the maximum power of the sum of the horsepower of the primary and secondary engine in the two-engine crane.

Section 2450. Portable Engine and Equipment Registration

Section 2456. Engine Requirements

(c) Registered diesel engines used on a crane as defined in 17 CCR 93116.2(a)(6) shall comply with the applicable requirements in Title 13 of the California Code of Regulations commencing with section 2449 and are otherwise exempt from further requirements of this section, except for subsection (e)(5).

Section 93116. Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater

Section 93116.1. *Applicability*

(b) The following portable engines are not subject to this regulation:

(8) Engines used exclusively on cranes shall meet all applicable requirements in Title 13 of the California Code of Regulations commencing with section 2449.

Section 93116.2 *Definitions.*

(a) For the purposes of these regulations, the following definitions apply:

(5) "*Crane*" means the same as "Two-Engine Crane" defined in title 13, CCR section 2449(c)(56).

Section 93116.3 *Requirements*

(b) Diesel PM Standards

(1) Requirements for in-use portable diesel-fueled engines

(A) Except as provided in sections 93116.3(b)(1)(B) ~~and 93116.3 (b)(4)~~, starting January 1, 2010, all portable diesel-fueled engines shall be certified to meet a federal or California standard for newly manufactured nonroad engines pursuant to 40 CFR Part 89 or Title 13 of the California Code of Regulations (that is, certified to Tier 1, 2 or 3 nonroad engine standards).[2]

~~(4) Lattice boom cranes~~

~~(A) A portable diesel-fueled engine used in a lattice boom crane shall be exempt from the requirements of section 93116.3(b)(1)(A) if the Responsible Official has demonstrated to the satisfaction of the Executive Officer or the APCO that the portable diesel-fueled engine in the lattice boom crane cannot be replaced with a portable diesel-fueled engine that is certified to meet a federal or California standard for newly manufactured nonroad engines pursuant to 40~~

[2] Tier 1, 2, 3, and 4 refer to nonroad engine emission standards promulgated by ARB and U.S. EPA for newly manufactured engines pursuant to 40 CFR Part 89 or Title 13 of the California Code of Regulation. Each successive Tier represents more stringent emission standards and the requirements are phased-in over time with the Tier 1 engine standards becoming effective for some engines manufactured in 1996 and becoming effective for all engines by 2000. Tier 2 engine standards are phased in for engines manufactured beginning in 2001 and becomes effective for all engines by 2006. Similarly, Tier 3 engines are phased in for engines manufactured beginning in 2006, and Tier 4 engines are phased in for engines manufactured beginning in 2011.

~~CFR Part 89 or Title 13 of the California Code of Regulations (that is, certified to Tier 1, 2 or 3 nonroad engine standards).~~

~~(B) Portable diesel-fueled engines exempt from the requirements of section 93116.3(b)(1)(A) pursuant to section 93116.3(b)(4)(A) shall satisfy one of the following requirements by January 1, 2020:~~

~~1. the portable diesel-fueled engine is certified to Tier 4 emission standards for newly manufactured nonroad engines; or~~

~~2. the portable diesel-fueled engine is equipped with a properly functioning level-3 verified technology; or~~

~~3. the portable diesel-fueled engine is equipped with a combination of verified emission control strategies that have been verified together to achieve at least 85% reduction in diesel PM emissions.~~

(c) Fleet Requirements

(3) The following portable diesel-fueled engines shall be excluded from the fleet requirements:

(A) portable diesel-fueled engines operated exclusively outside of California or operated only within the OCS.

(B) portable diesel-fueled engines used exclusively in emergency applications.

(C) portable diesel-fueled engines that qualify as low-use engines.

~~(D) portable diesel-fueled engines used in a lattice boom crane~~