

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

Section 2025(i) Optional Requirements for Small Fleets Page 16

The optional requirements for small fleets have been revised. The full text of section 2025 (i) was deleted and replaced with new text. The revision was necessary to clarify the provisions of the section and to reinstate the 2017 deadline for the compliance extension for the first vehicle in the fleet. This deadline was inadvertently omitted in the version of the regulation dated July 17, 2008. The new text is shown in underline and the deleted text is shown in ~~strikeout~~.

(i) *Optional Requirements for Small Fleets.*

~~(1) *Fleets with One or Two Vehicles*~~

~~(A) In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a fleet of one or two vehicles may comply by having a vehicle equipped with a 2004 or later model year engine with a diesel particulate filter by December 31, 2012 and having the remaining vehicle in the fleet meet the PM and NOx performance requirements of section 2025(e)(1) by December 31, 2013.~~

~~(B) Between January 1, 2010 through December 31, 2011, the owner of one or two vehicles electing to comply by meeting the requirements of subsection 2025(i)(1)(A) above is exempt from having to comply with any other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).~~

~~(2) *Fleets with Three Vehicles*~~

~~(A) In lieu of the performance requirements of sections 2025(e) through (h), the owner of a fleet of three vehicles may comply by having one vehicle equipped with a 2004 or later model year engine with a diesel particulate filter by December 31, 2012. By December 31, 2013, the owner must replace the engine of one of the remaining two vehicles with a 2010 model year engine or a 2010 model year NOx emissions equivalent engine. By December 31, 2015, the owner must replace the engine of the last vehicle with a 2010 model year engine or a 2010 model year NOx emissions equivalent engine.~~

~~(B) Between January 1, 2010 through December 31, 2011, the owner of three vehicles electing to comply by meeting the requirements of subsection 2025 (i)(2)(A) above is exempt from having to comply with any other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).~~

(1) In lieu of the performance requirements of sections 2025(e) through (h), the owner of a small fleet may comply by having a vehicle equipped with a 2004 or later model year engine with a diesel particulate filter or a 2004 or later model year emissions equivalent engine with a diesel particulate filter by December 31, 2012. This vehicle is exempt from the PM and NOx performance requirements of section 2025(e)(1) until 2017. The remaining vehicles in the small fleet must meet the PM and NOx performance requirements of section 2025(e)(1) by December 2013. In a fleet of three vehicles, if by December 31, 2013, one of the remaining vehicles is equipped with a 2010 model year or 2010 model year emissions equivalent engine, the third vehicle is exempt from the PM and NOx performance requirements of section 2025(e)(1) until December 31, 2015 when it must be replaced by a vehicle equipped with a 2010 model year or 2010 model year emissions equivalent engine.

(2) The fleet owner that complies by meeting the requirements of subsection 2025(i)(1) above is subject to the reporting requirements of section 2025(p).

**Errata to the
Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled
Vehicles Owned or Operated by Public Agencies and Utilities**

Section 2022.1(d)(7) Light Heavy-Duty Engine Extension

This sub-section was added to describe the type of documentation required when applying for the Light Heavy-Duty Engine Extension. The new text is shown in underline.

Section 2022.1(f)(1)(K)(3). Vehicles Sold Outside of the State of California

The word, “contact” was inserted between “buyer’s information” to clarify the requirement. The proposed language now reads as “buyer’s contact information.” The new text is shown in underline.

Section 2022.1(h)(2). Third Party Vehicle Seller Contract Requirement

The buyer’s contact information was included to remain consistent with the other out-of-state definition and requirements. The new text is shown in underline.

of the applicable compliance deadline, then the municipality or utility shall be exempted from applying the best available control technology as defined in subsection (b) to that engine for a maximum of one year, provided documentation of the expected retirement date is kept in records as specified in subsection (f) and the engine is retired by the stated anticipated date.

- (5) *Use of Experimental Diesel Emission Control Strategy.* A municipality or utility may use an experimental diesel emission control strategy provided by, or operated by, the manufacturer in no more than 20 vehicles, or ten percent of its total fleet, whichever is less, for testing and evaluation purposes. The municipality or utility shall keep documentation of this use in records as specified in subsection (f). Each vehicle will be considered to be in compliance for the duration of the experiment to a maximum of two years. The municipality or utility must bring the vehicle into compliance within six months of the end of the testing and evaluation period. No experimental diesel emission control strategy may be used on a vehicle after December 31, 2012.
- (6) *Accelerated Turnover Option.* A municipality or utility either located in a low-population county or granted low-population county status may follow the accelerated turnover option provided in subsection (c)(3), provided the Executive Officer has received a letter by July 31, 2008, stating the municipality's or utility's intent to comply with this option.
- (7) *Light Heavy-Duty Engine Extension.* A municipality or utility may apply for a one year extension from the 2009 compliance deadline for light heavy-duty engines which prevent the fleet to comply with the 2009 intermediate BACT compliance requirements in section 2022(c)(1). A municipality or utility must:
1. Submit a letter to the Executive Officer by August 1, 2009 requesting the light heavy-duty engine extension;
 2. Submit documentation to demonstrate it cannot comply with the 2009 intermediate BACT compliance requirements in section 2022(c)(1) after adding light heavy-duty engines as a part of the total fleet size. Documentation may include, but is not limited to, a financial budget, budgeting schedules, etc. The documentation shall demonstrate that the municipality's or utility's financial budget cannot comply with the 2009 intermediate BACT compliance requirements after including the light heavy-duty engines; and
 3. Meet the record keeping requirements under section 2022.1(f).
- (a) *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

(J) *Records to document the retirement of a vehicle.* For each vehicle or engine to be retired, list the vehicle identification number, engine manufacturer, model-year, family, and series. For each vehicle that will be transferred to another fleet in California, include also the information required by sections 2022.1(f)(1)(B) and a statement of compliance that the vehicle meets the provisions of section 2022.1(b). For each vehicle or engine to be retired, provide the date of retirement, and written confirmation from the recipient of the retired vehicle or engine that the destination of the vehicle or its engine meets the requirements of the definition of “retirement” or “retire” in section 2022(b).

(K) *Vehicles sold outside of the State of California.* For a vehicle to qualify for retirement, a municipality or utility must:

1. Submit to the Executive Officer a VIN Stop request which includes: vehicle license plate number, vehicle identification number, vehicle model-year, vehicle make, vehicle model, engine manufacturer, engine serial number, and engine model year;
2. Obtain and maintain VIN Stop submittal to Department of Motor Vehicle in municipality’s or utility’s records; and
3. Obtain out-of-state buyer’s contact information, such as name, address and phone number for the vehicle sold outside of the State of California and acknowledgement of the vehicle’s operational status.

~~(K)~~(L) A statement of compliance, prepared beginning December 31, 2007, and renewed each December 31, thereafter until December 31, 2012, with low-population counties continuing until December 31, 2018, certifying that the municipality’s or utility’s engines are in compliance as required, including the following:

1. “The [insert name of municipality or utility] vehicles at terminal [insert terminal identification number or address] are in compliance with title 13, California Code of Regulations, section 2022.1”; and
2. The municipality’s or utility’s name, address, and business telephone; and the signature of the municipality’s or utility’s agent and the date signed.

(2) *Inspection of Records at the Terminal.* Beginning December 31, 2007, the municipality or utility shall provide to any ARB representative any records required to be maintained by the municipality or utility pursuant to subsection (f)(1), by appointment, at the terminal where a vehicle normally resides.

- (A) Ensure that vehicle is sold outside of the State of California or if sold to an intermediate buyer in state, inform the intermediate buyer that the vehicle cannot be sold or operated within California unless the vehicle is in compliance with section 2022.1(b);
 - (B) Inform the buyer that the vehicle cannot be registered in California unless the vehicle is in compliance with section 2022.1(b); and
 - (C) Notify the buyer to inform future buyers that the vehicle cannot be registered/operated in California unless the vehicle is in compliance with section 2022.1(b).
- (2) Obtain a written statement from the third party vehicle seller with the buyer's contact information, such as name, address, and phone number, and acknowledgment of the requirements in subparagraph 2022.1(h)(1).

~~(h)~~(i) *Non-Compliance.* Any violations of this section may carry civil penalties as specified in state law and regulations, including, but not limited to, Health and Safety Code Section 39674.

- (1) A municipality or utility that fails to maintain the required records in paragraph (f)(1) may be subject to civil penalties of not less than \$100 per day for every day past the required recordkeeping date.
- (2) A municipality or utility that fails to maintain the required records in the vehicle as specified in paragraph (f)(3) may be subject to civil penalties of not less than \$100 per day per vehicle for every day past the required recordkeeping date.

NOTE: Authority cited: Sections 39600, 39601, and 39658, Health and Safety Code.
Reference: Sections 39002, 39003, 39655, 39656, 39657, 39658, 39659, 39660, 39661, 39662, 39664, 39665, 39667, 39669, 39674, 39675, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700, Health and Safety Code.

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Section 2025(j) Requirements for Schoolbuses, Pages 17-19

The compliance deadline for completing the installation of the highest level VDECS on schoolbuses has been changed from December 31, 2013 to December 31, 2017. This changes has been made in sections 2025(j)(5) and (j)(~~(~~)B). The correct dates are shown in underline and the deleted dates are shown in ~~strikeout~~.

Please replace pages 17 to 19 of the draft proposed regulation dated July 17, 2008 with the following errata pages.

other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).

(2) *Fleets with Three Vehicles*

(A) In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a fleet of three vehicles may comply by having one vehicle equipped with a 2004 or later model year engine with a diesel particulate filter by December 31, 2012. By December 31, 2013, the owner must replace one of the remaining engines with a 2010 model-year engine or a 2010 model-year NOx emissions equivalent engine. By December 31, 2015, the owner must replace the other remaining engine with a 2010 model-year engine or a 2010 model-year NOx emissions equivalent engine

(B) Between January 1, 2010 through December 31, 2011, the owner of three vehicles electing to comply by meeting the requirements of subsection 2025 (i)(2)(A) above is exempt from having to comply with any other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).

(j) *Requirements for Schoolbuses*

Beginning with the applicable effective dates set forth below, a schoolbus fleet, as defined in section 2025(d)(24)(C), and a schoolbus sub-fleet as defined in section 2025(d)(24)(D) 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 or schoolbus sub-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 PM fleet averaging option of 2025(h)(3).
- (3) By December 31, 2013, all diesel-fueled schoolbuses shall be retrofitted with the highest level VDECS device available to be used on any engine used in schoolbuses 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 requirement.
- (4) Each schoolbus fleet or schoolbus sub-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 that is available for use on any engine used in schoolbuses, then the engine shall be replaced and retrofitted with the highest level VDECS available by December 31, 2013~~2017~~. The schoolbus 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

<i>Compliance Deadline, as of December 31</i>	<i>Engine Model-Years</i>
2010	2000 and newer
2011	1994 – 1999
2012	1987 – 1993
2013	Pre-1987

(7) *Special Provisions for Schoolbuses*

- (A) An owner of a schoolbus fleet or schoolbus sub-fleet may be granted credit for hybrid schoolbuses or alternative fuel schoolbuses according to the provisions of sections 2025(m)(7) and (8), respectively.

(B) *Low-use Schoolbuses*

1. Schoolbuses that meet the definition of low-use vehicles in section 2025(d)(32) 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 PM fleet average indices or target rates for the fleet averaging option of section 2025(h)(3).
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)(28) are not subject to the regulation.

(9) *Reporting Requirements for Schoolbus Fleets and Schoolbus Sub-Fleets*

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

(B) From 2010 through ~~2013~~ 2017 until all schoolbuses are equipped with the highest level VDECS, the schoolbus fleet or schoolbus sub-fleet owner must report the information required in section 2025(p), except for the information required under subsections 2025(p)(8)(E), (p)(10)(B), and (p)(11).

(10) *Record Keeping Requirements for Schoolbus Fleets and Schoolbus Sub-Fleets*

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

(11) Schoolbus fleets and schoolbus sub-fleets are subject to the applicable requirements of sections 2025(r) through (x).

(k) *Requirements for Drayage Trucks*

(1) In 2010 through 2016, the owner of a drayage truck as defined in section 2025(d)(18), with a 2004 to 2006 model-year engine, must comply with the BACT requirements of section 2025(f).

(2) Starting in 2017, all drayage truck owners must comply with the BACT requirements of section 2025(f) or the BACT percentage limits specified in section 2025(g) or the fleet average requirements of section 2025(h).

(3) Starting in 2017, the drayage truck owner must comply with the reporting requirements of section 2025(p) and the record keeping requirements of section 2025(q).

(l) *Meeting the Compliance Requirements.*

(1) *New Fleet Requirements.* Owners of new fleets must meet the requirements of section 2025(e) and sections 2025 (f), (g), or (h) as applicable, immediately upon purchasing vehicles subject to the regulation or bringing such vehicles into the State of California for the first time after December 31, 2010. New fleets must report vehicles subject to the regulation to ARB within 30 days of purchasing or bringing such vehicles into the State, in accordance with the requirements in section 2025(p).

(2) *Adding Vehicles to a Fleet.* 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(l)(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.

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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 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
- Section 1956.8 Exhaust Emissions Standards and Test Procedures – 1985 and Subsequent Model Heavy-Duty Engines and Vehicles.
- Section 2020. Purpose and Definitions of Diesel Particulate Matter Control Measures.
- 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 2449 General Requirements for In-Use Off-Road Diesel-Fueled Fleets
- Section 2456 Portable Engine and Equipment Registration

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

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**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;
 - (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)(50).

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(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) Vehicles subject to the rule for mobile cargo handling equipment at ports and intermodal railyards commencing with title 13, CCR, section 2479
- (5) Military tactical support vehicles, as described in title 13, CCR, section 1905;
- (6) Authorized emergency vehicles as described in California Vehicle Code (Veh. Code), section 165;
- (7) Off-road vehicles subject to title 13, CCR, sections 2401, 2411, 2421, 2432, and 2449;
- (8) Dedicated snow-removal vehicles as defined in section 2025(d)(12)
- (9) Two-engine cranes as defined in title 13, CCR, section 2449(c)(56).
- (10) Historic vehicles as defined in section 2025(d)(28); and
- (11) Motor homes for non-commercial private use.

(d) *Definitions*

For purposes of this regulation, the following definitions apply:

- (1) “*2010 Model-Year NOx Emissions Equivalent*” means:
 - (A) Emissions from an engine certified to the 2004 model year heavy-duty diesel engine emissions standard that is equipped with a VDECS that reduces NOx exhaust emissions by more than 85 percent; or
 - (B) Emissions from an engine certified to the 2007 model year heavy-duty diesel engine emissions standard that is equipped with a VDECS that reduces NOx exhaust emissions by more than 70 percent.
- (2) “*2007 Model-Year NOx Emissions Equivalent*” means:
 - (A) Emissions from an engine certified to the 2003 or prior model year heavy-duty diesel engine emissions standard that is equipped with a VDECS that reduces NOx exhaust emissions by at least 70 percent; or
 - (B) Emissions from an engine certified to the 2004 through 2006 model year heavy-duty diesel engine emissions standard that is equipped with a VDECS that reduces NOx exhaust emissions by at least 40 percent; or

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- (C) Emissions from a 2004 model-year NO_x emissions equivalent heavy duty diesel engine, as defined in section 2025(d)(3), that is equipped with a VDECS that reduces NO_x exhaust emissions by at least 55 percent.
- (3) *“2004 Model-Year NO_x Emissions Equivalent”*
- (A) Emissions from a 2003 or older model-year heavy duty diesel engine that was built to 2004 engine emission standards and was not used in any manufacturer’s averaging, banking and trading program.
- (B) Emissions from a pre-2004 model-year heavy duty diesel engine that is equipped with a VDECS that reduces NO_x exhaust emissions by at least 55 percent.
- (4) *“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.
- (5) *“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.
- (6) *“Alternative-Fueled Engine”* means an engine that is fueled with a fuel meeting the definition of alternative fuel.
- (7) *“Best Available Control Technology BACT Standard”* (BACT) means the exhaust PM and NO_x standards that must be met according to the requirements of section 2025(f).
- (8) *“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.
- (9) *“Commercial Vehicle”* means a motor vehicle or combination of motor vehicles as defined in California Veh. Code, section 260.

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- (10) “*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.
- (11) “*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.
- (12) “*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.
- (13) “*Diesel Fuel*” has the same meaning as defined in Title 13, CCR, sections 2281 and 2282.
- (14) “*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.
- (15) “*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.
- (16) “*Diesel PM Index*” for the purposes of section 2025(h)(3)(B) means an indicator of the overall PM emission rate.
- (17) “*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.
- (18) “*Drayage Truck*” is the same as defined in title 13, CCR. Section 2027.
- (19) “*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.
- (20) “*Emergency Vehicle*” is as defined in California Veh. Code, section 27156.2.
- (21) “*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

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governmental emergency management agency. Routine operation to prevent public health risks does not constitute emergency operation.

- (22) “*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.
- (23) “*Executive Officer*” means the Executive Officer of the ARB or his or her authorized representative.
- (24) “*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) “*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.
- (B) “*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.
- (C) “*Schoolbus Fleet*” means a fleet comprised only of vehicles that meet the definition of schoolbus given in section 2025(d)(49).
- (D) “*Schoolbus Sub-Fleet*” means the schoolbuses in a fleet comprised of schoolbuses and vehicles other than schoolbuses.
- (E) “*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.
- (25) “*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.

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- (26) "*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.
- (27) "*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 Emissions 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.
- (28) "*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.
- (29) "*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.
- (30) "*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.
- (31) "*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.
- (32) "*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.
- (33) "*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.
- (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

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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(m).

A NOx exempt vehicle is:

- (A) A schoolbus as defined in section 2025(d)(49); 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(m)(6); or
 - (D) A NOx mileage exempt vehicle, as defined in section 2025(d)(41).
- (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 Mileage Exempt Vehicle*”:
 - (A) A heavy heavy-duty diesel yard truck or other heavy heavy-duty diesel vehicle that has a power take off system to perform work in a stationary mode, that is operated fewer than 7,500 miles and less than 250 hours per year; or
 - (B) A medium heavy-duty diesel yard truck or other medium heavy-duty diesel vehicle that has a power take off system to perform work in a stationary mode that is operated fewer than 5,000 miles and less than 175 hours per year; or

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- (C) A heavy heavy-duty diesel vehicle that does not have a power take off system and does not perform work in a stationary mode and is operated fewer than 7,500 miles per year. It is not subject to the hours limitation; or
 - (D) A medium heavy-duty diesel vehicle that does not have a power take off system and does not perform work in a stationary mode and is operated fewer than 5,000 miles per year. It is not subject to the hours limitation.
 - (E) NO_x mileage exempt vehicles as defined in sections 2025(d)(A) through (D) above are exempt from the NO_x performance requirements during the compliance years specified in section 2025(m)(1) regardless of where the vehicle is operated.
- (42) “*NO_x Target Rate*” means the NO_x fleet average that a specific fleet must meet in a compliance year in order to show compliance with the fleet average requirements.
- (43) “*Oxides of Nitrogen (NO_x)*” 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.
- (44) “*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.
- (45) “*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.
- (46) “*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.
- (47) “*Repower*” means to replace the engine in a vehicle with a newer engine certified to lower emission standards for PM or NO_x or both as applicable.
- (48) “*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

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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).
- (49) “*Schoolbus*” is a motor vehicle as defined in California Veh. Code, section 545.
- (50) “*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.
- (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 California Veh. Code section 36005(a);
 - (B) A spray or fertilizer applicator rig as defined in California Veh. Code section 36005(d);
 - (C) A nurse rig as defined in California Veh. Code section 36005 (f);
 - (D) A row duster as listed in California Veh. Code section 36005(g);
 - (E) A cotton module mover as defined in California Veh. Code section 36012;
 - (F) A silage truck as defined in California Veh. Code section 36101(i);
 - (G) A mixer-feed truck 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 California 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 California 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.

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- (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) The fleet owner 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(m)(6)
- (2) Schoolbus fleets, as defined in section 2025(d)(24)(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 sub-fleet as defined in section 2025(d)(24)(D) must meet the requirements of section 2025(j).
 - (B) The remaining vehicles, excluding the schoolbus sub-fleet, must comply with the performance requirements of section 2025(e)(1) above; or the owner may include the schoolbus sub-fleet 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 sub-fleet requirements of section 2025(j).
- (4) A drayage truck must comply with the requirements of section 2025(k).
- (5) 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 separately comply and report compliance with the fleet averaging performance requirements or the BACT percentage limits requirements. However, the total number of vehicles under common ownership or control is determinative of fleet size.
- (6) 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.
- (7) The following is required for a fleet owner who elects to utilize the BACT percent limits option of section 2025(g), the fleet averaging option of section 2025(h), the

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optional requirements for small fleets of section 2025(i), or the special provisions and compliance extensions of sections 2025(m)(1), (2), (7), and (8):

- (A) a valid California motor carrier of property number,
 - (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, or
 - (D) other applicable valid operating authority number.
- (8) A vehicle, other than a schoolbus, that is exempt from the NO_x performance requirements must comply with the requirements of section 2025(m)(1).
- (9) Small fleets may elect to meet the optional small fleet requirements of section 2025(i).
- (10) All information specified in section 2025(p) must be reported to the Executive Officer.
- (11) Records must be kept as specified in section 2025(q).
- (12) Once a vehicle is required to be in compliance with this regulation, it must remain in compliance at all times that it is operating in California.
- (13) Once a fleet is required to be in compliance with this regulation, it must remain in compliance at all times that it is operating in California.
- (f) *Best Available Control Technology (BACT) Requirements*

Starting December 31, 2010, a fleet owner who elects to utilize this option to comply with either the PM BACT, NO_x BACT, or both requirements must meet the applicable requirements of section 2025(f)(1) or (2) for each vehicle within its fleet according to the compliance schedule shown in Table 1, with the exceptions noted in sections (f)(1) and (2) below.

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Table 1: Best Available Control Technology Compliance Schedule

<i>Compliance Deadline, as of December 31</i>	<i>Engine Model-Years</i>	<i>BACT Requirements</i>
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 or equivalent	NOx and PM BACT
2021	2008	NOx and PM BACT
2022	2009	NOx and PM BACT

(1) *PM BACT Standard*

- (A) 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.
- (B) In 2010 through 2016, the Executive Officer will grant a one-year extension of the compliance deadline based on the evaluation of information submitted pursuant to section 2025(p)(7) that a vehicle’s engine cannot be equipped with the highest level VDECS for PM.
- (C) By December 31, 2017, any vehicle that is not equipped with the highest level VDECS for PM must be replaced or have its engine replaced with one than can be equipped with the highest level VDECS for PM.

(2) *NOx BACT Standard* – The BACT standard for NOx is an engine newly manufactured in 2010 or later or a 2010 emissions-equivalent engine as defined in section 2025(d)(1).

(g) *BACT Percentage Limits.*

- (1) A fleet owner who elects to utilize this option for PM, NOx, or both must comply with the applicable performance requirements of sections 2025(g)(2), (3), and (4) below and the reporting requirements of section 2025(p).
- (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).

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- (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 for compliance with the fleet average requirement for PM, NOx, or both must comply with the applicable fleet averaging requirements of sections 2025(h)(2) and (3) and the reporting requirements of section 2025(p).

(2) NOx Fleet Average.

- (A) A fleet owner must demonstrate that on December 31 of each compliance 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.

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(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(p)(5) that the engine family is certified to the 0.2 grams per brake horsepower-hour 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 owner must use the emission factor given in Table A-2 for the engine model-year.
3. The fleet owner may exclude 2010 model-year engines equipped with a diesel particulate filter (DPF) from the fleet average calculation for any compliance year, and may exclude 2007 model-year engines equipped with a DPF from the fleet average calculation through 2013.

(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 an engine that has been retrofit with a 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

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

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

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 MHD 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	0.530
2012	0.17	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.*

(1) *Fleets with One or Two Vehicles*

(A) In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a fleet of one or two vehicles may comply by having a vehicle equipped with a 2004 or later model year engine with a diesel particulate filter by December 31, 2012 and having the remaining vehicle in the fleet meet the PM and NOx performance requirements of section 2025(e)(1) by December 31, 2013.

(B) Between January 1, 2010 through December 31, 2011, the owner of one or two vehicles electing to comply by meeting the requirements of subsection 2025(i)(1)(A) above is exempt from having to comply with any

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other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).

(2) *Fleets with Three Vehicles*

(A) In lieu of the performance requirements of sections 2025(f), (g), and (h), the owner of a fleet of three vehicles may comply by having one vehicle equipped with a 2004 or later model year engine with a diesel particulate filter by December 31, 2012. By December 31, 2013, the owner must replace one of the remaining engines with a 2010 model-year engine or a 2010 model-year NOx emissions equivalent engine. By December 31, 2015, the owner must replace the other remaining engine with a 2010 model-year engine or a 2010 model-year NOx emissions equivalent engine.

(B) Between January 1, 2010 through December 31, 2011, the owner of three vehicles electing to comply by meeting the requirements of subsection 2025 (i)(2)(A) above is exempt from having to comply with any other performance requirements of this regulation, but is subject to the reporting requirements of section 2025(p).

(j) *Requirements for Schoolbuses*

Beginning with the applicable effective dates set forth below, a schoolbus fleet, as defined in section 2025(d)(24)(C), and a schoolbus sub-fleet as defined in section 2025(d)(24)(D) 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 or schoolbus sub-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 PM fleet averaging option of 2025(h)(3).
- (3) By December 31, 2013, all diesel-fueled schoolbuses shall be retrofitted with the highest level VDECS device available to be used on any engine used in schoolbuses 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 requirement.
- (4) Each schoolbus fleet or schoolbus sub-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 that is available for use on any engine used in schoolbuses then the engine shall be replaced and retrofitted with the highest level VDECS available by December 31, 2013. The schoolbus 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).

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- (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

<i>Compliance Deadline, as of December 31</i>	<i>Engine Model-Years</i>
2010	2000 and newer
2011	1994 – 1999
2012	1987 – 1993
2013	Pre-1987

(7) *Special Provisions for Schoolbuses*

- (A) An owner of a schoolbus fleet or schoolbus sub-fleet may be granted credit for hybrid schoolbuses or alternative fuel schoolbuses according to the provisions of sections 2025(m)(7) and (8), respectively.

(B) *Low-use Schoolbuses*

1. Schoolbuses that meet the definition of low-use vehicles in section 2025(d)(32) 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 PM fleet average indices or target rates for the fleet averaging option of section 2025(h)(3).
 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)(28) are not subject to the regulation.
- (9) *Reporting Requirements for Schoolbus Fleets and Schoolbus Sub-Fleets*
- (A) The owner of a schoolbus fleet or a schoolbus sub-fleet is subject to the reporting requirements in subsection (B) below if complying with the PM BACT percentage limit requirements of 2025(g) or the PM fleet averaging option of 2025(h)(3) or any of the special provisions in section 2025(m).

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(B) From 2010 through 2013, the schoolbus fleet owner must report the information required in section 2025(p), except for the information required under subsections 2025(p)(8)(E), (p)(10)(B), and (p)(11).

(10) *Record Keeping Requirements for Schoolbus Fleets and Schoolbus Sub-Fleets*

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

(11) Schoolbus fleets and schoolbus sub-fleets are subject to the applicable requirements of sections 2025(r) through (x).

(k) *Requirements for Drayage Trucks*

(1) In 2010 through 2016, the owner of a drayage truck as defined in section 2025(d)(18), with a 2004 to 2006 model-year engine, must comply with the BACT requirements of section 2025(f).

(2) Starting in 2017, all drayage truck owners must comply with the BACT requirements of section 2025(f) or the BACT percentage limits specified in section 2025(g), or the fleet average requirements of section 2025(h).

(3) Starting in 2017, the drayage truck owner must comply with the reporting requirements of section 2025(p) and the record keeping requirements of section 2025(q).

(l) *Meeting the Compliance Requirements.*

(1) *New Fleet Requirements.* Owners of new fleets must meet the requirements of section 2025(e) and sections 2025 (f), (g), or (h) as applicable, immediately upon purchasing vehicles subject to the regulation or bringing such vehicles into the State of California for the first time after December 31, 2010. New fleets must report vehicles subject to the regulation to ARB within 30 days of purchasing or bringing such vehicles into the State, in accordance with the requirements in section 2025(p).

(2) *Adding Vehicles to a Fleet.* 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(l)(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.

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(3) *Change in Exemption Status.* A fleet owner of a vehicle that formerly qualified for any of the compliance extensions or exemptions granted in section 2025(m) but whose status has changed so that it no longer meets the applicable definition in section 2025(m), must immediately bring the fleet into compliance with performance requirements of section 2025(f), or (g), or (h) for the immediately preceding compliance deadline, and must notify the Executive Officer of the change in status within 30 days from the date of the change.

(4) *VDECS Requirements*

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

1. The VDECS is verified for use with the engine and vehicle, as described in the Executive Order for the VDECS.
2. Use of the vehicle is consistent with the conditions of the Executive Order for the VDECS.
3. The diesel emission control strategy is installed in a verified configuration.
4. The engine to be retrofit is tuned up so that it meets engine manufacturer's specifications prior to VDECS installation.
5. The VDECS label will be visible after installation.

(B) *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(m)(8). 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.

(m) *Exemptions, Compliance Extensions, and Credits.*

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

(1) *Exemption from NO_x Performance Requirements.* Upon demonstration of proper documentation, the Executive Officer will exempt the following vehicles from the NO_x performance requirements of sections 2025(f), (g), or (h), but all such vehicles must continue to be subject to the PM performance requirements of section 2025(f), (g), or (h) and the record keeping and reporting requirements of this regulation.

(A) A vehicle that meets the definition of NO_x mileage exempt vehicle, as defined in section (d)(41), prior to December 31, 2020.

1. If a vehicle is used both for emergency operations as defined in section 2025(d)(21), and for other purposes, the owner does not need to consider the hours of operation or the mileage the vehicle accrues when used for emergency operations in a compliance year, in

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determining whether the vehicle meets the definition of a mileage exempt vehicle for that compliance year.

2. If the vehicle meets the NOx mileage exempt definition of section 2025(d)(41), it is exempt from the NOx performance requirements according to section 2025(m)(1).
 3. A fleet owner of a vehicle that formerly met the definition of NOx mileage exempt vehicle, but whose hours of use and mileage have increased above the limits specified in section 2025(d)(41), must immediately bring the fleet into compliance with the performance requirements of section 2025(f), or (g), or (h) for the immediately preceding compliance deadline and must notify the Executive Officer of the change in status within 30 days from the date of the change.
- (B) A vehicle that operates solely in the NOx exempt areas defined in section (d)(38) prior to December 31, 2020. A NOx-exempt vehicle is allowed to travel outside of the NOx-exempt area only for repairs or other service to the vehicle. The vehicle owner must obtain a work order from the facility that describes the service and shows the date of the service and location of the facility.
- (C) Schoolbuses.
- (2) *Exemptions for Specialty Vehicles.* Upon demonstration of proper documentation, the Executive Officer will exempt the following vehicles from specified performance requirements.
- (A) *Specialty Farm Vehicles.* – A specialty farm vehicle, as defined in section 2025(d)(51), will be exempted from the PM performance requirements of sections 2025(f) through (g) prior to December 31, 2017, if the model year of the engine is 1994 or newer but shall remain subject to the NOx performance requirements of sections 2025(f) through (h)(g) starting on December 31, 2012.
- (B) *Cab-over-engine truck tractor.*
1. A tractor with a cab-over-engine design that is used exclusively to pull 57-foot trailers will be exempted from the NOx performance requirements prior to December 31, 2017 provided that the engine installed on the vehicle is certified to at least the 2004 – 2006 model-year on-road engine standards and on the compliance date, all 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 all vehicles in the fleet have met the BACT percentage limit of section (g) for PM and NOx or have met the fleet average requirements of section 2025(h) for PM and NOx.
 2. The exemption in section 2025 (m)(2)(B)1. does not apply at any time that the total length of a combination of vehicles as described in section 35401(a) of the California Vehicle Code is allowed to exceed 65 feet, if the length law is amended before December 31, 2009.

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(C) *Unique Vehicles* - A unique vehicle will be exempted from the NOx performance requirements prior to December 31, 2017 if all vehicles in the fleet that do not qualify for an exemption under the following conditions meet the NOx BACT performance requirements and the vehicle meets all of the following criteria:

1. A cleaner engine replacement is not available for the vehicle as demonstrated to the Executive Officer; ,
2. A used vehicle that performs a similar function with a 2007 NOx equivalent emissions engine or cleaner is not available;
3. A verified NOx emissions control device that could reduce the vehicle's exhaust NOx emissions is not available;
4. The vehicle's engine is equipped with the highest level VDECS.

(3) *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(p) and (q). 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 and target rates for the fleet averaging option of section 2025(h).

(B) Vehicles used both for emergency operations as defined in section 2025(d)(18), and for other purposes, do not need to consider the hours of operation or mileage the vehicle accrues when used for emergency operations in determining whether the vehicle meets the definition of a low-use vehicle. If the vehicle meets the low-use definition of section 2025(d)(29), it is exempt from the performance requirements of section 2025 (e), but it is subject to the requirements of section 2025(l)(3)(A) for low-use vehicles.

(C) Vehicles 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 immediately preceding compliance deadline.

(4) *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.

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(5) *Exemption for Vehicles Used Solely on San Nicolas or San Clemente Islands -* Vehicles used solely on San Nicolas or San Clemente Islands are exempt from all requirements in section 2025. If the land use plans for the islands are changed to allow use by the general public of the islands, this exemption shall no longer be applicable.

(6) *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, the owner may delay compliance with the NOx BACT requirements of sections 2025(f), the NOx BACT percent limits of section 2025(g) and the NOx and PM fleet averaging requirements of section 2025(h) until December 31, 2013 for each vehicle that has been retrofitted early.

(7) *Credit for Hybrid Vehicles*

(A) Prior to December 31, 2017, upon presentation of proper documentation, the Executive Officer shall grant an owner credit towards compliance with the fleet average for using hybrid vehicles defined in section 2025(d)(29) 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.

(B) Upon approval by the Executive Officer, the fleet shall receive for each compliance year prior to 2017, a credit that double counts the number of hybrid vehicles in the fleet that may be 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).

(8) *Credit for Alternative Fuel Vehicles --* Upon presentation of proper documentation, the Executive Officer will grant a fleet credit for using vehicles equipped with alternative fuel or heavy-duty pilot ignition engines, in calculating the NOx and PM fleet averages under section 2025(h). Upon approval, the fleet would be allowed to use the NOx emission factor for the engine model year to which the alternative or heavy-duty pilot ignition engines have been certified in calculating the NOx index and zero for the PM index.

(9) *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.

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- (B) The owner has identified the vehicle to be equipped with the VDECS or replaced upon receipt of the new equipment or vehicle.
 - (C) Proof of purchase, such as a purchase order, downpayment, 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.
 - (D) The new equipment or vehicles are immediately placed into operation upon receipt.
- (n) *Special Provisions for VDECS and Experimental Diesel Emission Control Strategies*
- (1) *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.
- (2) *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 performance 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 the fleet owner time to return to compliance with the applicable performance requirements. The Executive Officer then has 30 days to act upon the request.

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

(A) 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.

1. 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.
2. The Executive will treat the strategy as follows:
 - a. If the application demonstrates that the strategy achieves at least 50 percent reduction in diesel PM, like a Level 2 VDECS;
 - b. If the application demonstrates that the strategy achieves at least 85 percent reductions in diesel PM, it will be treated like a Level 3 VDECS.
 - c. If the application demonstrates that the strategy achieves a NOx reduction of over 15 percent, the NOx reduction will be counted.

(B) 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 shall keep documentation of this use in records as specified by the Executive Officer.

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

(4) *VDECS That Impairs Safe Operation of Vehicle* - A fleet owner may request that the Executive Officer find that a VDECS should not be considered the highest level VDECS available because (A) it cannot be safely installed or operated in a particular vehicle application, or (B) its use would make compliance with occupational safety and health requirements, or an ongoing local air district permit condition impossible.

If a VDECS manufacturer states that there is no safe or appropriate method of mounting its VDECS on the requesting party's vehicle, then the VDECS will not be considered safe. In the absence of such a declaration by the VDECS manufacturer, the requesting party shall provide other documentation to support its claims.

Documentation must include published reports and other findings of federal, state or local government agencies, independent testing laboratories, engine manufacturers, or other equally reliable sources. The request will only be

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approved if the requesting party has made a thorough effort to find a safe method for installing and operating the VDECS, including various locations for VDECS mounting, and use of an actively regenerated VDECS. The Executive Officer shall review the documentation submitted and any other reliable information that he or she wishes to consider and shall make his or her determination based upon the totality of the evidence.

Upon finding that a VDECS cannot be installed without violating the safety standards prescribed under title 8, CCR by the California Department of Industrial Relations, Division of Occupational Safety and Health, the Executive Officer shall issue a determination that there is no highest level VDECS available. The Executive Officer shall inform the requesting party, in writing, of his or her determination, within 60 days of receipt of the request.

Parties may appeal the Executive Officer's determination as described in (A) and (B) below. During the appeal process described in (A) and (B) below, the requesting party may request the administrative law judge to stay compliance until a final decision is issued. If the stay is granted and the Executive Officer denies the requesting party's request, the requesting party has six months from the date of the Executive Officer's final written decision to bring his or her fleet back into compliance.

(A) Appeals – Hearing Procedures –

1. Any party whose request has been denied may request a hearing for the Executive Officer to reconsider the action taken by sending a request in writing to the Executive Officer. A request for hearing shall include, at a minimum, the following:
 - a. name of the requesting party;
 - b. copy of the Executive Officer's written notification of denial;
 - c. a concise statement of the issues to be raised, with supporting facts, setting forth the basis for challenging the denial (conclusory allegations will not suffice);
 - d. a brief summary of evidence in support of the statement of facts required in c. above; and
 - e. the signature of an authorized person requesting the hearing
2. A request for a hearing shall be filed within 30 days from the date of issuance of the notice of the denial.
3. A hearing requested pursuant to this section shall be heard by a qualified and impartial hearing officer appointed by the Executive Officer. The hearing officer may be an employee of the ARB, but may not be any employee who was involved with the denial at issue. In a request for reconsideration, the hearing officer, after reviewing the request for hearing and supporting documentation provided under paragraph 1. above, shall grant the request for a hearing if he or she finds that the request raises a genuine and substantial question of law or fact.

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4. If a hearing is granted, the hearing officer shall schedule and hold, as soon as practicable, a hearing at a time and place determined by the hearing officer.
5. Upon appointment, the hearing officer shall establish a hearing file. The file shall consist of the following:
 - a. the determination issued by the Executive Officer which is the subject of the request for hearing;
 - b. the request for hearing and the supporting documents that are submitted with it;
 - c. all documents relating to and relied upon by the Executive Officer in making the initial determination to deny the requesting party's original claim; and
 - d. correspondence and other documents material to the hearing.
6. The hearing file shall be available for inspection by the applicant at the office of the hearing officer.
7. An applicant may appear in person or be represented by counsel or by any other duly-authorized representative.
8. The ARB may be represented by staff or counsel familiar with the regulation and may present rebuttal evidence.
9. Technical rules of evidence shall not apply to the hearing, except that relevant evidence may be admitted and given probative effect only if it is the kind of evidence upon which reasonable persons are accustomed to relying in the conduct of serious affairs. No action shall be overturned based solely on hearsay evidence, unless the hearsay evidence would be admissible in a court of law under a legally recognized exception to the hearsay rule.
10. Declarations may be used upon stipulation by the parties.
11. The hearing shall be recorded either electronically or by a certified shorthand reporter.
12. The hearing officer shall consider the totality of the circumstances of the denial, including but not limited to, credibility of witnesses, authenticity and reliability of documents, and qualifications of experts. The hearing officer may also consider relevant past conduct of the applicant including any prior incidents involving other ARB programs.
13. The hearing officer's written decision shall set forth findings of fact and conclusions of law as necessary.
14. Within 30 days of the conclusion of a hearing, the hearing officer shall submit a written proposed decision, including proposed finding as well as a copy of any material submitted by the hearing participants as part of that hearing and relied on by the hearing officer, to the Executive Officer. The hearing officer may recommend to the Executive Officer any of the following:

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- a. uphold the denial as issued;
 - b. modify the denial; or
 - c. overturn the denial in its entirety.
15. The Executive Officer shall render a final written decision within 60 working days of the last day of hearing. The Executive Officer may do any of the following:
- a. adopt the hearing officer's proposed decision;
 - b. modify the hearing officer's proposed decision; or
 - c. render a decision without regard to the hearing officer's proposed decision.

(B) Appeals – Hearing Conducted by Written Submission.

In lieu of the hearing procedure set forth in (A) above, an applicant may request that the hearing be conducted solely by written submission. In such case the requestor must submit a written explanation of the basis for the appeal and provide supporting documents within 20 days of making the request. Subsequent to such a submission the following shall transpire:

1. ARB staff shall submit a written response to the requestor's submission and documents in support of the Executive Officer's action no later than 10 days after receipt of the requestor's submission;
2. The applicant may submit one rebuttal statement which may include supporting information, as attachment(s), but limited to the issues previously raised;
3. If the applicant submits a rebuttal, ARB staff may submit one rebuttal statement which may include supporting information, as attachment(s), but limited to the issues previously raised; and
4. The hearing officer shall be designated in the same manner as set forth in section 2025(n)(4)(A)3. above. The hearing officer shall receive all statements and documents and submit a proposed written decision and such other documents as described in section 2025(n)(4)(A)13. above to the Executive Officer no later than 30 working days after the final deadline for submission of papers. The Executive Officer's final decision shall be mailed to the applicant no later than 60 days after the final deadline for submission of papers.
5. The Executive Officer shall render a final written decision within 60 working days of the last day of hearing. The Executive Officer may do any of the following:
 - a. adopt the hearing officer's proposed decision;
 - b. modify the hearing officer's proposed decision; or
 - c. render a decision without regard to the hearing officer's proposed decision.

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(o) *Labeling Requirements*

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

(p) *Reporting*

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

- (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(r). If a fleet owner opts to comply with fleet averaging performance requirements separately for different divisions or subsidiaries according to section 2025(e)(5), 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 prior compliance year. They must submit the applicable information set forth in sections 2025(p)(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 of section 2025(f) 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);

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(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)(31)
- (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(p)(8)
 - 2. Report whether the low use status is based on mileage or hours of operation.
- (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(p)(9).
- (K) Whether the vehicle is a specialty vehicle as defined in section 2025(m)(2);
- (L) Whether the vehicle is a hybrid vehicle as defined in section 2025(d)(29).
- (M) Whether the vehicle is an alternative-fueled vehicle as defined in section 2025(d)(6).

(5) *Engine Information.*

The following information must be reported for each engine that propels a vehicle reported per section 2025(p)(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(p)(5), report the following information.

- (A) Type of VDECS installed,

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- (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(p)(3), (4), and (5).
- (B) Description of the reason for the compliance extension request 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 are 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 (p)(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(p)(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(m)(3).

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(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 (p)(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(p)(1) through (5)
- 2. Information listed in section 2025(p)(6) for the verified diesel emissions control strategy.

(A) *NOx Mileage Exempt Vehicles.*

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

- 1. Owner, vehicle, and engine information listed in sections 2025 (p)(1) through (5)
- 2. Information listed in section 2025(p)(6) for the verified diesel emissions control strategy
- 3. The appropriate 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(p)(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(q).

A NOx mileage exempt vehicle that does not perform work in stationary mode need not report hours of use.

- 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.

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

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

- 1. Owner, vehicle, engine information, and VDECS listed in sections 2025(p)(1) through (5);

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2. Records from a tracking system that tracks usage and location submitted in a monthly report format approved by ARB. The system must at a minimum meet the performance requirements specified in section 2025(p)(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 exceed 1,000 miles and total hours of operation exceed 100 hours.
- (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 except for vehicles that do not use PTO to perform work in a stationary mode.

(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. 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* – The fleet owner or responsible person must report any additions, deletions, or changes to the fleet since the last annual report filed. Such changes shall include, among other things, changes in the fleet's compliance option, vehicles removed from the fleet, vehicles added to the fleet through purchase or by bringing into California, and vehicles newly defined as low-use, or recently repowered or retrofitted. If there are no changes, the fleet owner shall indicate there have been 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(p)(1) through (5) to ARB within 30 days of purchasing 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

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vehicle into the State, new fleets must comply with the reporting requirements in section 2025(p).

(q) *Record Keeping.*

- (1) The owner of a fleet shall maintain the following records specified in sections 2025(p)(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(p) shall maintain copies of the information reported under section 2025(p), as well as the records described in sections 2025(q)(3) through (8) 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(m)(2) 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(m)(9), 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) *Maintenance of VDECS Records*
 - (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.

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(r) *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.

(s) *Record Retention*

The fleet owner or responsible person shall maintain the records for each vehicle subject to the reporting and record keeping requirements of sections 2025(p) and (q) and until 3 years after it is retired or January 1, 2025, whichever is earlier. 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(u) for three years after the sale.

(t) *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.

(u) *Disclosure of Regulation Applicability*

Any person residing in California selling a vehicle with an engine subject to this regulation 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/dieseltruck>."

(v) *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. [*ARB staff is continuing to investigate other mechanisms of ensuring that dispatchers do not hire non-compliant vehicles.*]
- (3) *Lessee and Lessor.* Any contract that a lessor and lessee enter into that has an effective date of December 31, 2009 or later 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.

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(w) *ARB Certificate of Reported Compliance* –

After the required reporting and compliance certification are received by ARB staff, ARB will provide the fleet with a Certificate of Reported Compliance with the In-Use On-road Diesel Vehicle Regulation. ARB staff will also post on the website for this regulation the motor carrier number for fleets that have reported compliance.

(x) *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.

(y) *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

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APPENDIX

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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

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§ 1956.8. Exhaust Emissions Standards and Test Procedures – 1985 and Subsequent Model Heavy-Duty Engines and Vehicles.

(a)(1) [No Change]

(a)(2)(A) The exhaust emissions from new 2004 and subsequent model heavy-duty diesel engines, heavy-duty natural gas-fueled and liquefied-petroleum-gas-fueled engines derived from diesel-cycle engines, and heavy-duty methanol-fueled diesel engines, and the optional, reduced-emission standards for 2002 and subsequent model engines produced beginning October 1, 2002, except in all cases engines used in medium-duty vehicles, shall not exceed:

Exhaust Emission Standards for 2004 and Subsequent Model Heavy-Duty Engines, and Optional, Reduced Emission Standards for 2002 and Subsequent Model Heavy-Duty Engines Produced Beginning October 1, 2002, Other than Urban Bus Model Year Engines Produced Beginning October 1, 2002 through 2006^L (grams per brake horsepower-hour [g/bhp-hr])

<i>Model Year</i>	<i>Oxides of Nitrogen Plus Non-methane Hydrocarbons</i>	<i>Optional Oxides of Nitrogen Plus Non-methane Hydrocarbons</i>	<i>Oxides of Nitrogen</i>	<i>Non-methane Hydrocarbons</i>	<i>Carbon Monoxide</i>	<i>Particulates</i>
2004-2006 ^H	2.4 ^{A,C,E,J}	2.5 ^{B,C,E,J}	n/a	n/a	15.5	0.10 ^C
October 1, 2002-2006	n/a	1.8 to 0.3 ^{A,D,F}	n/a	n/a	15.5	0.03 to 0.01 ^G
2007 and subsequent	n/a	n/a	0.2 ^I	0.14	15.5	0.01 ^K

- ^A This is the standard for the arithmetic sum of the oxides of nitrogen exhaust component certification value and the non-methane hydrocarbon exhaust component certification value, without individual restriction on the individual component values.
- ^B This is the standard for the arithmetic sum of the oxides of nitrogen exhaust component certification value and the non-methane hydrocarbon exhaust component certification value, with the non-methane hydrocarbon individual component value not to exceed 0.5 g/bhp-hr.
- ^C For 2004 through 2006 model years, emissions averaging may be used to meet this standard. Averaging must be based on the requirements of the averaging, banking and trading programs described in “California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles” incorporated by reference in section 1956.8 (b), below.
- ^D A manufacturer may elect to certify to an optional reduced-emission NOx+NMHC standard between the values, inclusive, by 0.3 grams per brake horsepower-hour increments. Engines certified to any of these optional reduced-emission NOx standards are not eligible for participation in any averaging, banking or trading programs described in “California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles” incorporated by reference in section 1956.8 (b), below.
- ^E May be used as the certification standard for the higher emitting fueling mode of an engine certified under the dual fueling mode certification process of section 1956.8(a)(4), below.
- ^F May be used as the certification standard for the lower emitting fueling mode of an engine certified under the dual fueling mode certification process of section 1956.8(a)(4), below.

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- ^G A manufacturer may elect to certify to an optional reduced-emission PM standard between the specified values, inclusive, by 0.01 grams per brake horsepower-hour increments. Engines certified to any of these optional reduced-emission PM standards are not eligible for participation in any averaging, banking or trading programs described in "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" incorporated by reference in section 1956.8 (b), below.
- ^H Engine manufacturers subject to the Heavy-Duty Diesel Engine Settlement Agreements (Settlement Agreements)¹ must produce engines in compliance with the requirements contained in their respective Settlement Agreement. Most engine manufacturers subject to the Settlement Agreements are required to manufacture engines meeting the exhaust emission standards for 2004 and subsequent model years engines beginning October 1, 2002.
- ^I A manufacturer may elect to include any or all of its heavy-duty diesel engine families in any or all of the NOx emissions averaging, banking, or trading programs for heavy-duty diesel engines, within the restrictions described in "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" incorporated in section 1956.8 (b), below. If the manufacturer elects to include engine families in any of these programs, the NOx family emission limit (FEL) may not exceed the following FEL caps: 2.00 grams per brake horsepower-hour (0.75 grams per megajoule) for model years before 2010; 0.50 grams per brake horsepower-hour (0.19 grams per megajoule) for model years 2010 and later. The FEL cap applies whether credits for the engine family are derived from averaging, banking, or trading programs.
- ^J For 2007 through 2009 model years, a manufacturer may use these emission standards in accordance with section 1956.8 (a)(2)(B). A manufacturer may elect to include any or all of its heavy-duty diesel engine families in any or all of the NOx plus NMHC emissions averaging, banking, or trading programs for heavy-duty diesel engines, within the restrictions described in "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" incorporated in section 1956.8 (b), below. If the manufacturer elects to include engine families in any of these programs, the NOx family emission limit (FEL) may not exceed the following FEL caps: 2.00 grams per brake horsepower-hour (0.75 grams per megajoule) for model years. The FEL cap applies whether credits for the engine family are derived from averaging, banking, or trading programs.
- ^K A manufacturer may elect to include any or all of its heavy-duty diesel engine families in any or all of the particulate averaging, banking, or trading programs for heavy-duty diesel engines, within the restrictions described in "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" incorporated by reference in section 1956.8 (b), below. The particulate FEL for each engine family a manufacturer elects to include in any of these programs may not exceed an FEL cap of 0.02 grams per brake horsepower-hour (0.0075 grams per megajoule). The FEL cap applies whether credits for the engine family are derived from averaging, banking, or trading programs.
- ^L For 2007 and subsequent model year urban bus engines, this section applies. For urban bus model-year engines produced from October 1, 2002 through 2006, refer to section 1956.1.

¹ Seven of the largest heavy-duty diesel engine manufacturers will be implementing measures to reduce emissions beginning October 1, 2002, to meet the requirements of the Heavy-Duty Diesel Engine Settlement Agreements reached with the ARB. The Heavy-Duty Diesel Engine Settlements were agreements reached in response to lawsuits brought by the United States Environmental Protection Agency and violations alleged by the ARB pertaining to excess in-use emissions caused by the use of defeat devices and unacceptable algorithms. Navistar signed its Settlement Agreement on October 22, 1998. Cummins, Detroit Diesel Corporation, Caterpillar, Volvo, Mack and Renault signed their Settlement Agreements on December 15, 1998.

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- ^M. For model years between 2007 and 2009, transit agencies purchasing urban buses and/or urban bus engines shall meet the requirements set forth in section 2023.1.
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(a)(6) *Heavy-Duty Diesel Engine Idling Requirements.*

- (A) *Engine Shutdown System.* The requirements in this subsection apply to engine manufacturers and original equipment manufacturers, as applicable, that are responsible for the design and control of engine and/or vehicle idle controls.

(i) *Requirements:* Except as provided in subsections (a)(6)(B) and (a)(6)(C), all new 2008 and subsequent model-year heavy-duty diesel engines shall be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to “neutral” or “park”, and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to “neutral” or “park.” The engine shutdown system must be tamper-resistant and non-programmable. A warning signal, such as a light or sound indicator inside the vehicle cabin, may be used to alert the driver 30 seconds prior to engine shutdown. The engine shutdown system must be capable of allowing the driver to reset the engine shutdown system timer by momentarily changing the position of the accelerator, brake, or clutch pedal, or other mechanism within 30 seconds prior to engine shutdown. Once reset, the engine shutdown system shall restart the engine shutdown sequence described in this paragraph above, and shall continue to do so until the engine shuts down or the vehicle is driven.

(ii) *Engine Shutdown System Override:* The engine shutdown system may be overridden, to allow the engine to run continuously at idle, only under the following conditions:

(I) *If the engine is operating in power take-off (PTO) mode.*

The PTO system shall have a switch or a setting that can be switched “on” to override the engine shutdown system and will reset to the “off” position when the vehicle’s engine is turned off or when the PTO equipment is turned off. Subject to advance Executive Officer approval, other methods for detecting or activating PTO operation may be allowed; or,

(II) *if the vehicle’s engine coolant temperature is below 60°F.*

The engine shutdown system shall automatically be activated once the coolant temperature reaches 60°F or above. The engine coolant temperature shall be measured with the engine’s existing engine coolant temperature sensor used for engine protection, if so equipped. Other methods of measuring engine coolant temperature may be allowed, subject to advance Executive Officer approval.

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(III) *If an exhaust emission control device is regenerating*, and keeping the engine running is necessary to prevent aftertreatment or engine damage, the engine shutdown system may be overridden for the duration necessary to complete the regeneration process up to a maximum of 30 minutes. Determination of what constitutes the need for regeneration will be based on data provided by the manufacturer at time of certification. Regeneration events that may require longer than 30 minutes of engine idling to complete shall require advance Executive Officer approval. At the end of the regeneration process, the engine shutdown system shall automatically be enabled to restart the engine shutdown sequence described in subparagraph (a)(6)(A)1. above. A vehicle that uses a regeneration strategy under engine idling operating conditions shall be equipped with a dashboard indicator light that, when illuminated, indicates that the exhaust emission control device is regenerating. Other methods of indicating that the exhaust emission control device is regenerating may be used with advance Executive Officer approval.

(IV) *If servicing or maintenance of the engine requires extended idling operation*. The engine's electronic control module may be set to temporarily deactivate the engine shutdown system for up to a maximum of 60 minutes. The deactivation of the engine shutdown system shall only be performed with the use of a diagnostic scan tool. At the end of the set deactivation period, the engine's electronic control module shall reset to restart the engine shutdown system sequence described in subparagraph (a)(6)(A) above.

(V) Armored car, as defined in California Vehicle Code, section 115, and Workover rig, as defined in section 2449 of title 13, California Code of Regulations, may have a switch or a setting that can be switched "on" to override the engine shutdown system.

(B) *Exempt Vehicles*. Heavy-duty diesel engines to be used in buses as defined in California Vehicle Code §§ 233, 612 and 642, school buses as defined in California Vehicle Code § 545, recreational vehicles as defined in Health and Safety Code 18010, medium duty vehicles as defined in section 1900(b)(13) of title 13, California Code of Regulations, military tactical vehicles as defined in section 1905 of title 13, California Code of Regulations, and authorized emergency vehicles as defined in California Vehicle Code section 165 are exempted from these requirements.

(C) *Optional NOx idling emission standard*. In lieu of the engine shutdown system requirements specified in subsection (a)(6)(A) above, an engine manufacturer may elect to certify its new 2008 and subsequent model-year heavy-duty diesel engines to an optional NOx idling emission standard of 30 grams per hour. Compliance with this optional standard will be determined based on testing conducted pursuant to the supplemental NOx idling test cycle and procedures specified in section 86.1360-2007.B.4 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," as incorporated by reference in subsection (b).

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The manufacturer may request an alternative test procedure if the technology used cannot be demonstrated using the procedures in section 86.1360-2007.B.4, subject to advance approval of the Executive Officer. A manufacturer certifying to the optional NOx idling standard must not increase emissions of CO, PM, or NMHC, determined by comparing results from the supplemental NOx idling test cycle and procedures specified in section 86.1360-2007.B.4 of the referenced "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" to emission results from the idle mode of the supplemental steady state test cycle or emission results from idle portions of the transient test cycle for heavy duty diesel engines, respectively specified in sections 86-1360-2007 and 86.1327-98 of the referenced "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles." With advance Executive Officer approval, a manufacturer may use other methods of ensuring that emissions of CO, PM, and NMHC are not adversely affected in meeting the optional NOx requirement. Also, manufacturers shall state in their application for certification that meeting the optional NOx idling requirement will not adversely affect the associated emissions of CO, PM and NMHC.

An engine manufacturer certifying its engine to the optional NOx idling emission standard must also produce a vehicle label, as defined in subsection 35.B.4 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" as incorporated by reference in subsection (b).

- (D) Optional Alternatives to Main Engine Idling. All new 2008 and subsequent model year heavy duty diesel engines may also be equipped with idling emission reduction devices that comply with the compliance requirements specified in title 13, CCR section 2485(c)(3).

(b) through (h) [No Change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43102, 43104 and 43105, Health and Safety Code; Sections 27156, 38390, 38391 and 38395, Vehicle Code. Reference: Sections 39002, 39003, 39500, 43000, 43013, 43017, 43018, 43100, 43101, 43101.5, 43102, 43104, 43106, 43150-43154, 43202, 43204, 43205.5, 43206, 43210, 43211, 43212 and 43213, Health and Safety Code.

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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.~~

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code.
Reference: Sections 39002, 39003, 39650 - 39675, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700, Health and Safety Code.

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.
- (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.

(2) “Lease” means to operate a vehicle that is owned by a rental or leasing company for a period of one year or more.

~~(2)~~(3) “Low-Population County” means a county with a population of less than 125,000, based upon the California Department of Finance estimates as of July 1, 2005, and as listed in Table 2 of title 13, California Code of Regulations section 2022.1.

~~(3)~~(4) "Low Usage Vehicle" means a vehicle that is operated for fewer than 1000 miles or 50 hours per year, based on a 5 year rolling mileage or engine-hour average. A vehicle that does not have a properly functioning odometer, tachograph, or other reliable device to measure usage may not qualify as a low usage vehicle.

~~(4)~~(5) "Low-Population County Low Usage Vehicle" means a vehicle that is owned or operated by a municipality or utility located in a low-population county and is operated, based on a 5 year rolling mileage or engine hour average for fewer than 3000 miles or 150 hours, excluding mileage or engine hours used during snow removal operations. A vehicle that does not have a properly functioning odometer, tachograph, or other reliable device to measure usage may not qualify as a low-population county low usage vehicle.

(6) "Operate" means to use or manage a vehicle by a municipal or utility employee for the purposes of conducting work by or for the municipality or utility. This does not include personal vehicle use for commuting to or from the workplace.

~~(5)~~(7) "Retirement" or "Retire" means the withdrawal of an engine or vehicle subject to this rule from a municipality or utility fleet in California; the engine may be sold outside the State of California, scrapped, converted for use in a low usage vehicle or low-population county low usage vehicle. "Retirement" or "retire" also means the transfer of an engine or vehicle, which is subject to this rule and has been brought into compliance with title 13, California Code of Regulations, section 2022.1(b), from a municipality or utility fleet in California to another person or entity in California.

(8) "Sold Outside of the State of California" means a sale and operation of a vehicle outside the State of California to satisfy the definition of "retirement." A municipality or utility must submit a "VIN stop," as defined in title 13, California Code of Regulations, section 2022(b)(10), to the Executive Officer and the "VIN stop" shall be applied to the vehicle prior to sale of the vehicle. A municipality or utility must also follow the record keeping requirements as defined in title 13, California Code of Regulations, section 2022(f)(1)(K). If a municipality or utility is selling a vehicle through a Third Party Vehicle Seller, it must include Third Party Vehicle Seller contract language as defined in title 13, California Code of Regulations, section 2022(h).

(9) "Third Party Vehicle Seller" means a person that a municipality or utility uses to sell a vehicle outside of the State of California.

~~(7)~~(10) "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 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.² As of January 1, 2009, "Total Fleet" means the total of a municipality's or utility's on-road heavy-duty vehicles with a manufacturer's gross vehicle weight rating greater than 14,000 pounds with a 1960 to 2006 model-year heavy-duty engine or with a 2007 model-year or newer heavy-duty engine certified to greater than 0.01 grams per brake horsepower-hour particulate emission standard, excluding low usage vehicles; low-population county, low usage vehicles; dedicated snow-removal vehicles; and gasoline fueled vehicles

~~(8)~~(11) "Utility" means a privately-owned company that provides the same or similar services for water, natural gas, and electricity as a public utility operated by a municipality.

~~(9)~~(12) "Vehicle Type" means one of the following categories: "Compliant" for those vehicles that meet the requirements of section 2022.1(b); "Future Compliant" for those vehicles for which the municipality or utility has a planned compliance date; "Retired" for those vehicles that will meet the definition of "retirement" at a planned retirement date; "Low Usage or Low-Population County Low Usage" for those vehicles that meet the applicable definitions in this section; and "Experimental" for those vehicles that are part of an experimental program and comply with the provisions of section 2022.1(d)(5).

(13) "VIN stop" means a Department of Motor Vehicle registration hold based on a vehicle identification number to prevent a vehicle from being re-registered in California after a vehicle is "retired."

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code.
Reference: Sections 39002, 39003, 39655, 39656, 39657, 39658, 39659, 39660, 39661, 39662, 39664, 39665, 39667, 39669, 39674, 39675, 43000, 43013, 43018, 43101, 43102, 43104, 43105, and 43700, Health and Safety Code.

Section 2022.1. Determining Compliance for a Municipality or Utility.

- (b) *Best Available Control Technology.* Each municipality or utility shall use one of the following best available control technologies on each applicable vehicle in its total fleet as required by the implementation schedule in subsection (c):
- (1) An engine or power system certified to the optional 0.01 grams per brake horsepower-hour (g/bhp-hr) particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8(a)(2), or the 0.01 g/bhp-hr particulate emission standard as specified in title 13,

² 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.

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California Code of Regulations, section 1956.8(a), as appropriate for the engine's model-year; or

- (2) An engine or power system certified to the 0.10 g/bhp-hr particulate emission standard, as specified in title 13, California Code of Regulations, section 1956.8, used in conjunction with the highest level diesel emission control strategy as defined in subsection (b)(4) applied by the implementation schedule in subsection (c); or
- (3) An alternative fuel engine, heavy-duty pilot ignition engine, or gasoline engine; model-year 2004-2006 alternative fuel engines must be certified to the optional, reduced emission standards as specified in title 13, California Code of Regulations, section 1956.8 (a)(2)(A); gasoline engines must be certified to the emission standards as specified in title 13, California Code of Regulations, for heavy-duty Otto-cycle engines used in heavy-duty vehicles over 14,000 pounds gross vehicle weight, sections 1956.8(c)(1)(B) and 1976(b)(1)(F); or
- (4) The highest level diesel emission control strategy per title 13, California Code of Regulations, section 2702 (f), Table 1, that is verified for a specific engine to reduce diesel particulate matter and which the diesel-emission-control strategy manufacturer or authorized dealer agrees can be used on a specific engine and fleet-vehicle combination, without jeopardizing the original engine warranty in effect at the time of application.

(c) *Implementation Schedule.*

- (1) 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 newer Model-Year Engines for the specified percentage of vehicles by each applicable compliance deadline.

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

<i>Group</i>	<i>Engine Model-Years</i>	<i>Percentage of Group to Use Best Available Control Technology</i>	<i>Compliance Deadline, As of December 31</i>
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
<u>4</u>	<u>2007 and newer certified above the 0.01g/bhp-hr std.</u>	<u>100</u>	<u>2012</u>

^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.

- (2) *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

<i>COUNTY</i>	<i>Population as of July 1, 2005</i>
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

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

- (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

<i>Engine Model-Year</i>	<i>Fleet Percent to Repower with a 1994 or newer engine</i>	<i>Compliance Date as of Dec 31</i>	<i>Percent of Fleet to use BACT</i>	<i>Compliance Date as of Dec 31</i>
1960 –1993	100%	2020	100%	2025
1994 –2006 <u>and newer</u>	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:

(7) *Light Heavy-Duty Engine Extension.* A municipality or utility may apply for a one year extension from the 2009 compliance deadline for light heavy-duty engines which prevent the fleet to comply with the 2009 intermediate BACT compliance requirements in section 2022(c)(1). A municipality or utility must::

1. Submit a letter to the Executive Officer by August 1, 2009 requesting the light heavy-duty engine extension, and
2. Meet the record keeping requirements under section 2022.1(f).

(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 and 4 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

(f) *Record Keeping Requirement.* A municipality or utility shall maintain the following records. The municipality or utility shall provide the following records upon request to an agent or employee of the Air Resources Board for all vehicles in its total fleet subject to compliance with this regulation.

(1) *Records to be Kept For Inspection.* Beginning December 31, 2007, the municipality or utility shall keep the following records either in hard-copy format or as computer records:

(K) Vehicles sold outside of the State of California. For a vehicle to qualify for retirement, a municipality or utility must:

1. Submit to the Executive Officer a VIN Stop request which includes: vehicle license plate number, vehicle identification number, vehicle model-year, vehicle make, vehicle model, engine manufacturer, engine serial number, and engine model year;
2. Obtain and maintain VIN Stop submittal to Department of Motor Vehicle in municipality's or utility's records; and
3. Obtain out-of-state buyer's information, such as name, address and phone number for the vehicle sold outside of the State of California and acknowledgement of the vehicle's operational status.

~~(K)~~(L) A statement of compliance, prepared beginning December 31, 2007, and renewed each December 31, thereafter until December 31, 2012, with low-population counties continuing until December 31, 2018, certifying that the municipality's or utility's engines are in compliance as required, including the following:

1. "The [insert name of municipality or utility] vehicles at terminal [insert terminal identification number or address] are in compliance with title 13, California Code of Regulations, section 2022.1"; and
2. The municipality's or utility's name, address, and business telephone; and the signature of the municipality's or utility's agent and the date signed.

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(h) Third Party Vehicle Seller Contract Requirement. In any contract with a third party vehicle seller for the sale of a vehicle outside of the State of California to satisfy retirement, a municipality or utility must:

- (1) Include in the contract that it is the third party vehicle seller's responsibility to:
 - (A) Ensure that vehicle is sold outside of the State of California or if sold to an intermediate buyer in state, inform the intermediate buyer that the vehicle cannot be sold or operated within California unless the vehicle is in compliance with section 2022.1(b);
 - (B) Inform the buyer that the vehicle cannot be registered in California unless the vehicle is in compliance with section 2022.1(b); and
 - (C) Notify the buyer to inform future buyers that the vehicle cannot be registered/operated in California unless the vehicle is in compliance with section 2022.1(b).
- (2) Obtain a written statement from the third party vehicle seller with the buyer's acknowledgment of the requirements in subparagraph 2022.1(h)(1).

~~(h)~~(i) Non-Compliance. Any violations of this section may carry civil penalties as specified in state law and regulations, including, but not limited to, Health and Safety Code Section 39674.

- (1) A municipality or utility that fails to maintain the required records in paragraph (f)(1) may be subject to civil penalties of not less than \$100 per day for every day past the required recordkeeping date.

NOTE: Authority cited: Sections 39600, 39601, and 39658, Health and Safety Code.
Reference: Sections 39002, 39003, 39655, 39656, 39657, 39658, 39659, 39660, 39661, 39662, 39664, 39665, 39667, 39669, 39674, 39675, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700, Health and Safety Code.

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. 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.

(567) “Verified Diesel Emission Control Strategy” (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.

(578) “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 should be assumed to have failed.

(589) “Workover rig” means a mobile self-propelled rig used to perform one or more remedial operations, such as deepening, plugging back, pulling and resetting liners, on a producing oil or gas well to try to restore or increase the well's production.

(e) Special Provisions/Compliance Extensions

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(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.

(15) Workover Rigs – If a workover rig is repowered and will be registered and driven on-road, it must be repowered with an on-road certified engine of the same model year or newer as the engine being replaced.

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2449(g)(1)(B) Vehicle List – A list of each vehicle subject to this regulation along with the following information for each vehicle:

1. Vehicle type;
2. Vehicle manufacturer;
3. Vehicle model;
4. Vehicle model year;
5. Vehicle serial number (i.e., for workover rigs and two-engine cranes, vehicle identification number);
6. Whether the vehicle is a low-use vehicle;
7. If the vehicle is a low-use vehicle, whether the vehicle was operated outside of California during the previous compliance year;
8. Whether the vehicle is a specialty vehicle;
9. Whether the vehicle is a vehicle used solely for emergency operations;
10. Whether the vehicle is a dedicated snow removal vehicle;
11. Whether the vehicle is used for agricultural operations for over half of its annual operating hours;
12. Whether the vehicle is an electric vehicle that replaced a diesel vehicle;
13. Whether the vehicle has been retrofit, repowered, or replaced with Surplus Off-road Opt-in for NOx program funding and, if so, the start and end dates of the contract period;
14. Whether the vehicle has been retrofit, repowered, or replaced with Carl Moyer program funding;
15. Whether the vehicle has been retrofit through a demonstration program, and - if so - which program;
16. EIN if it has already been assigned;
17. License plate number, if vehicle has a license plate.

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2449.3(b) (2) Fleet Applicability – Section 2449.3 applies to a fleet that:

- (A) Operates individual vehicles within the air district;
- (B) As of January 1, 2008, on a statewide level, consisted of more than 40 percent Tier 0 and Tier 1 vehicles, and;
- (C) Has a statewide fleet with maximum power greater than 20,000 horsepower (hp).

[Staff is seeking comments on whether adding two-engine cranes to the off-road program should increase the fleet horsepower for SOON]

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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 (CCR) 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).³

~~(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~~

³ 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~~

Final Regulation Order

Regulation to Establish a Statewide Portable Equipment Registration Program

§ 2450. Purpose.

These regulations establish a statewide program for the registration and regulation of portable engines and engine-associated equipment (portable engines and equipment units) as defined herein. Portable engines and equipment units registered under the Air Resources Board program may operate throughout the State of California without authorization (except as specified herein) or permits from air quality management or air pollution control districts (districts). These regulations preempt districts from permitting, registering, or regulating portable engines and equipment units, including equipment necessary for the operation of a portable engine (e.g. fuel tanks), registered with the Executive Officer of the Air Resources Board except in the circumstances specified in the regulations.

NOTE: Authority cited: Section 39600, 39601, 41752, 41753, 41754, 41755, 43013(b), and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2451. Applicability.

- (a) Registration under this regulation is voluntary for owners of portable engines or equipment units.
- (b) This regulation applies to portable engines and equipment units as defined in section 2452. Except as provided in paragraph (c) of this section, any portable engine or equipment unit may register under this regulation. Examples include, but are not limited to:
 - (1) portable equipment units driven solely by portable engines including confined and unconfined abrasive blasting, Portland concrete batch plants, sand and gravel screening, rock crushing, and unheated pavement recycling and crushing operations;
 - (2) consistent with section 209 (e) of the federal Clean Air Act, engines and associated equipment used in conjunction with the following types of portable operations: well drilling, service or work-over rigs; power generation, excluding cogeneration; pumps; compressors; diesel pile-driving hammers; welding; cranes; woodchippers; dredges; equipment necessary for the operation of portable engines and equipment units; and military tactical support equipment.

- (c) The following are not eligible for registration under this program:
- (1) any engine used to propel mobile equipment or a motor vehicle of any kind as defined in section 2452 (~~zaa~~)(1)(A);
 - (2) any engine or equipment unit not meeting the definition of portable as defined in section 2452 (~~eedd~~) of this regulation;
 - (3) engines, equipment units, and associated engines determined by the Executive Officer to qualify as part of a stationary source permitted by a district;
 - (4) any engine or equipment unit subject to an applicable federal Maximum Achievable Control Technology standard, or National Emissions Standard for Hazardous Air Pollutants, or federal New Source Performance Standard, except for equipment units subject to 40 CFR Part 60 Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants);
 - (5) any engine or equipment unit operating within the boundaries of the California Outer Continental Shelf (OCS). [Note: This shall not prevent statewide registration of portable engines and equipment units already permitted by a district for operation in the OCS. Such statewide registration shall only be valid for operation onshore and in State Territorial Waters (STW).];
 - (6) any dredging operation in the Santa Barbara Harbor;
 - (7) any dredging unit owned by a single port authority, harbor district, or similar agency in control of a harbor, and operated only within the same harbor;
 - (8) generators used for power production into the grid, except to maintain grid stability during an emergency event or other unforeseen event that affects grid stability; and
 - (9) generators used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment, except during unforeseen interruptions of electrical power from the serving utility, maintenance and repair operations, electrical upgrade operations including startup, shutdown, and testing that do not exceed 60 calendar days, operations where the voltage, frequency, or electrical current requirements can only be supplied by a portable generator, or remote operations where grid power is unavailable.
- (d) In the event that the owner of an engine or equipment unit elects not to register under this program, the engine or equipment unit shall be subject to district permitting requirements pursuant to district regulations.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2452. Definitions.

- (a) “**Air Contaminant**” shall have the same meaning as set out in section 39013 of the Health and Safety Code.
- (b) “**ARB**” means the California Air Resources Board.
- (c) “**Certified Compression-Ignition Engine**” means an engine meeting the nonroad engine emission standards for compression-ignition engines, as set forth in Title 13 of the California Code of Regulations or 40 CFR Part 89 in effect at the time of application.
- (d) “**Certified Spark-Ignition Engine**” means an engine meeting the nonroad engine emission standards for spark-ignition engines, as set forth in Title 13 of the California Code of Regulations or 40 CFR Part 1048 in effect at the time of application.
- (e) “**Compression-Ignition (CI) Engine**” means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. Compression-ignition engines usually control fuel supply instead of using a throttle to regulate power.
- (f) “**Corresponding Onshore District**” means the district which has jurisdiction for the onshore area that is geographically closest to the engine or equipment unit.
- ~~(g) “**Crane**” means (MSCD supplied definition).~~
- ~~(gh) “**District**” means an air pollution control district or air quality management district created or continued in existence pursuant to provisions of Part 3 (commencing with section 40000) of the California Health and Safety Code.~~
- ~~(hi) “**Electrical Upgrade**” means replacement or addition of electrical equipment and systems resulting in increased generation, transmission and/or distribution capacity.~~
- ~~(ij) “**Emergency Event**” means any situation arising from sudden and reasonably unforeseen natural disaster such as earthquake, flood, fire, or other acts of God, or other unforeseen events beyond the control of the portable engine or equipment unit operator, its officers, employees, and contractors that threatens public health and safety and that requires the immediate temporary operation of portable engines or equipment units to help alleviate the threat to public health and safety.~~
- ~~(jk) “**Engine**” means any piston driven internal combustion engine.~~
- ~~(kl) “**Equipment Unit**” means equipment that emits PM₁₀ over and above that emitted from an associated engine.~~
- ~~(lm) “**Executive Officer**” means the Executive Officer of the California Air Resources Board or his/her designee.~~

- (~~mn~~) “**Hazardous Air Pollutant (HAP)**” means any air contaminant that is listed pursuant to section 112(b) of the federal Clean Air Act.
- (~~no~~) “**Home District**” means the district designated by the responsible official as the district in which the registered engine or equipment unit resides most of the time. For registered engines or equipment units based out of California, the responsible official shall designate the home district based on where the registered engine or equipment unit is likely to be operated a majority of the time the registered engine or equipment unit is in California.
- (~~op~~) “**Identical Replacement**” means a substitution due to mechanical breakdown of a registered portable engine or equipment unit with another portable engine or equipment unit that has the same manufacturer, type, model number, manufacturer’s maximum rated capacity, and rated brake horsepower; and is intended to perform the same or similar function as the original portable engine or equipment unit; and has equal or lower emissions expressed as mass per unit time; and meets the emission requirements of sections 2455 through 2457 of this article.
- (~~pg~~) “**In-field Inspection**” means an inspection that is conducted at the location that the portable engine or equipment unit is operated under normal load and conditions.
- (~~qr~~) “**Location**” means any single site at a building, structure, facility, or installation.
- (~~rs~~) “**Maximum Achievable Control Technology (MACT)**” means any federal requirement promulgated as part of 40 CFR Parts 61 and 63.
- (~~st~~) “**Maximum Rated Capacity**” is the maximum throughput rating or volume capacity listed on the nameplate of the registered equipment unit as specified by the manufacturer.
- (~~tu~~) “**Maximum Rated Horsepower (brake horsepower (bhp))**” is the maximum brake horsepower rating specified by the registered engine manufacturer and listed on the nameplate of the registered engine.
- (~~uv~~) “**Mechanical Breakdown**” means any failure of an engine’s electrical system or mechanical parts that necessitates the removal of the registered engine from service.
- (~~vw~~) “**Modification**” means any physical change to, change in method of operation of, or an addition to a registered engine or equipment unit, which may cause or result in an increase in the amount of any air contaminant emitted or the issuance of air contaminants not previously emitted. Routine maintenance and/or repair shall not be considered a physical change. Unless previously limited by an enforceable registration condition, a change in the method of operation shall not include:

- (1) an increase in the production rate, unless such increase will cause the maximum design capacity of the registered equipment unit to be exceeded;
 - (2) an increase in the hours of operation;
 - (3) a change of ownership; and
 - (4) the movement of a registered engine or equipment unit from one location to another.
- (~~w~~x) **“New Nonroad Engine”** means a nonroad engine, the equitable or legal title to which has never been transferred to an ultimate purchaser. If the equitable or legal title to an engine is not transferred to an ultimate purchaser until after the engine is placed into service, then the engine will no longer be new after it is placed into service. A nonroad engine is placed into service when it is used for its functional purposes. The term “ultimate purchaser” means, with respect to a new nonroad engine, the first person who purchases a new nonroad engine for purposes other than resale.
- (~~y~~z) **“New Source Performance Standard (NSPS)”** means any federal requirement promulgated as part of 40 CFR Part 60.
- (~~y~~z) **“Non-field Inspection”** means an inspection that is either conducted at a location that is mutually acceptable to the district and the owner or operator or where the engine or equipment unit is stored and does not require operation of the engine or equipment unit for purposes of the inspection.
- (~~z~~aa) **“Nonroad Engine”** means:
- (1) Except as discussed in paragraph (2) of this definition, a nonroad engine is any engine:
 - (A) in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or
 - (B) in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
 - (C) that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
 - (2) An engine is not a nonroad engine if:

- (A) the engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the federal Clean Air Act; or
- (B) the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the federal Clean Air Act; or
- (C) the engine otherwise included in paragraph (1)(C) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location approximately three (or more) months each year.

(~~aabb~~) “**Outer Continental Shelf (OCS)**” shall have the meaning provided by section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. Section 1331 et seq.).

(~~bbcc~~) “**Placard**” means a visible indicator supplied by the Air Resources Board to indicate that an engine or equipment has been registered in the Portable Equipment Registration Program and is in addition to the registration identification device.

(~~eedd~~) “**Portable**” means designed and capable of being carried or moved from one location to another. Indicia of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. For the purposes of this regulation, dredge engines on a boat or barge are considered portable. The engine or equipment unit is not portable if any of the following are true:

- (1) the engine or equipment unit or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. The period during which the engine or equipment unit is maintained at a storage facility shall be excluded from the residency time determination. Any engine or equipment unit such as back-up or stand-by engines or equipment units, that replace engine(s) or equipment unit(s) at a location, and is intended to perform the same or similar function as the engine(s) or equipment unit(s) being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engine(s) or equipment unit(s), including the time between the removal of the original engine(s) or equipment unit(s) and installation of the replacement engine(s) or equipment unit(s), will be counted toward the consecutive time period; or

- (2) the engine or equipment unit remains or will reside at a location for less than 12 consecutive months if the engine or equipment unit is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or
- (3) the engine or equipment unit is moved from one location to another in an attempt to circumvent the portable residence time requirements.

(~~dd~~ee) “**Prevention of Significant Deterioration (PSD)**” means any federal requirements contained in or promulgated pursuant to Part C of the federal Clean Air Act.

(~~ee~~ff) “**Process**” means any air-contaminant-emitting activity associated with the operation of a registered engine or equipment unit.

(~~ff~~gg) “**Project, for the purposes of onshore operation,**” means the use of one or more registered engines or equipment units operated under the same or common ownership or control to perform a single activity.

(~~gg~~hh) “**Project, for the purposes of State Territorial Waters (STW),**” means the use of one or more registered engines and equipment units operating under the same or common ownership or control to perform any and all activities needed to fulfill specified contract work that is performed in STW. For the purposes of this definition, a contract means verbal or written commitments covering all operations necessary to complete construction, exploration, maintenance, or other work. Multiple or consecutive contracts may be considered one project if they are intended to perform activities in the same general area, the same parties are involved in the contracts, or the time period specified in the contracts is determined by the Executive Officer to be sequential.

(~~hh~~ii) “**Provider of Essential Public Service (PEPS)**” means any privately-owned corporation or public agency that owns, operates, controls, or manages a line, plant, or system for the transportation of people or property, the transmission of telephone or telegraph messages, or the production, generation, transmission or furnishing of heat, light, water, power, or sanitation directly or indirectly to the public.

(~~ii~~jj) “**Registration**” means issuance of a certificate by the Executive Officer acknowledging expected compliance with the applicable requirements of this article, and the intent by the owner or operator to operate the engine or equipment unit within the requirements established by this article.

(~~jj~~kk) “**Rental Business**” means a business which rents or leases registered engines or equipment units.

(~~kkll~~) **“Renter”** means a person who rents and/or operates registered engines or equipment units not owned by that person.

(~~hmm~~) **“Resident Engine”** means either of the following:

- (1) a portable engine that at the time of applying for registration, has a current, valid district permit or registration that was issued prior to January 1, 2006, or an engine that lost a permit to operate exemption through a formal district action. Moving an engine from a district that provides a permit to operate exemption to a district that requires a permit to operate or registration does not qualify for consideration as a resident engine; or
- (2) a certified compression-ignition engine that operated in California at any time between March 1, 2004 and October 1, 2006. The responsible official shall provide sufficient documentation to prove the engine’s residency to the satisfaction of the Executive Officer. Examples of adequate documentation include but are not limited to: tax records, purchase records, maintenance records, or usage records.

An engine permitted or registered by a district pursuant to Title 17 of the California Code of Regulations Section 93116.3(b)(6) is not a resident engine.

(~~mmnn~~) **“Responsible Official”** refers to an individual employed by the company or public agency with the authority to certify that the registered engines or equipment units under his/her jurisdiction comply with applicable requirements of this regulation. A company or public agency may have more than one Responsible Official.

(~~nooo~~) **“Spark-Ignition (SI) Engine”** means an internal combustion engine with a spark plug (or other sparking device) with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle instead of using fuel supply to control intake air flow to regulate power.

(~~oopp~~) **“State Territorial Waters (STW)”** includes all of the following: an expanse of water that extends from the California coastline to 3 miles off-shore; a 3 mile wide belt around islands; and estuaries, rivers, and other inland waterways.

(~~ppqq~~) **“Statewide Registration Program”** means the program for registration of portable engines and equipment units set out in this article.

(~~qqrr~~) **“Stationary Source”** means any building, structure, facility or installation which emits any air contaminant directly or as a fugitive emission. “Building,” “structure,” “facility,” or “installation” includes all pollutant emitting activities which:

- (1) are under the same ownership or operation, or which are owned or operated by entities which are under common control;
- (2) belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial classification code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and
- (3) are located on one or more contiguous or adjacent properties.

[Note: For the purposes of this regulation a stationary source and nonroad engine are mutually exclusive.]

(~~ffss~~) **“Storage”** means a warehouse, enclosed yard, or other area established for the primary purpose of maintaining registered engines or equipment units when not in operation.

(~~sstt~~) **“Tactical Support Equipment (TSE)”** means equipment using a portable engine, including turbines, that meets military specifications, owned by the U.S. Department of Defense, the U.S. military services, or its allies, and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations. Examples include, but are not limited to, internal combustion engines associated with portable generators, aircraft start carts, heaters and lighting carts.

(~~ttuu~~) **“Third-party Rental”** means a non-rental business renting or leasing registered engines and/or equipment units to another party by written agreement.

(~~ttvv~~) **“Tier 1 Engine”** means a certified compression-ignition engine according to the horsepower and model year as follows:

- ≥50 bhp and <100 bhp; 1998 through 2003
- ≥100 bhp and <175 bhp; 1997 through 2002
- ≥175 bhp and <300 bhp; 1996 through 2002
- ≥300 bhp and <600 bhp; 1996 through 2000
- ≥600 bhp and ≤750 bhp; 1996 through 2001
- >750 bhp; 2000 through 2005.

(~~vvww~~) **“Tier 2 Engine”** means a certified compression-ignition engine according to the horsepower and model year as follows:

- ≥50 bhp and <100 bhp; 2004 through 2007
- ≥100 bhp and <175 bhp; 2003 through 2006
- ≥175 bhp and <300 bhp; 2003 through 2005
- ≥300 bhp and <600 bhp; 2001 through 2005
- ≥600 bhp and ≤750 bhp; 2002 through 2005
- >750 bhp; 2006 through 2010.

(~~wwxx~~) **“Transportable”** means the same as portable.

(~~xyyy~~) **“U.S. EPA”** means the United States Environmental Protection Agency.

(~~yyzz~~) **“Vendor”** means a seller or supplier of portable engines or equipment units for use in California.

(~~zzaaa~~) **“Volatile Organic Compound (VOC)”** means any compound containing at least one atom of carbon except for the following exempt compounds: acetone, ethane, parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene), methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonates, methylene chloride (dichloromethane),

methyl chloroform (1,1,1-trichloroethane), CFC-113 (trichlorotrifluoroethane), CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane), CFC-22 (chlorodifluoromethane), CFC-23 (trifluoromethane), CFC-114 (dichlorotetrafluoroethane), CFC-115 (chloropentafluoroethane), HCFC-123 (dichlorotrifluoroethane), HFC-134a (tetrafluoroethane), HCFC-141b (dichlorofluoroethane), HCFC-142b (chlorodifluoroethane), HCFC-124 (chlorotetrafluoroethane), HFC-23 (trifluoromethane), HFC-134 (tetrafluoroethane), HFC-125 (pentafluoroethane), HFC-143a (trifluoroethane), HFC-152a (difluoroethane), cyclic, branched, or linear completely methylated siloxanes, the following classes of perfluorocarbons:

- (1) cyclic, branched, or linear, completely fluorinated alkanes;
- (2) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- (3) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (4) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, acetone, ethane, and parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2453. Application Process.

- (a) In order for an engine or equipment unit to be considered for registration by the Executive Officer, the engine or equipment unit must be portable as defined in section 2452 ([eedd](#)) and meet all applicable requirements established in this article.
- (b) For purposes of registration under this article, an engine and the equipment unit it serves are considered to be separate emissions units and require separate applications.
- (c) For an identical replacement, an owner or operator of a registered portable engine or equipment unit is not required to complete a new application and may immediately operate the identical replacement. Except for TSE, the owner or operator shall notify the Executive Officer in writing within five calendar days of replacing the registered engine or equipment unit with an identical replacement. Notification shall include company name, responsible official, phone number, registration certificate number of the engine or equipment unit to be replaced; and make, model, rated brake horsepower, serial number of the identical replacement, description of the mechanical breakdown; and applicable fees as required in section 2461. Misrepresentation of engine or equipment unit information or the failure to meet the requirements of this regulation shall be deemed a violation of this article.

- (d) The Executive Officer shall inform the applicant, in writing, if the application is complete or deficient, within 30 days of receipt of an application. If deemed deficient, the Executive Officer shall identify the specific information required to make the application complete.
- (e) The Executive Officer shall issue or deny registration within 90 days of receipt of a complete application.
- (f) Upon finding that an engine or equipment unit meets the requirements of this article, the Executive Officer shall issue a registration for the engine or equipment unit. The Executive Officer shall notify the applicant in writing that the engine or equipment unit has been registered. The notification shall include a registration certificate, any conditions to ensure compliance with State and federal requirements, and a registration identification device for each engine or equipment unit registered pursuant to this regulation. Except for TSE, the registration identification device shall be affixed on the engine or equipment unit at all times, and the registration certificate including operating conditions shall be kept on the immediate premises with the engine or equipment at all times and made accessible to the Executive Officer or district upon request. Failure to properly maintain the registration identification device shall be deemed a violation of this article.
- (g) Except for TSE, each application for registration and the appropriate fee(s) as specified in section 2461, shall be submitted in a format approved by the Executive Officer and include, at a minimum, the following information:
 - (1) indication of general nature of business (e.g., rental business, etc.);
 - (2) the name of applicant, including mailing address and telephone number;
 - (3) a brief description of typical engine or equipment-unit use;
 - (4) detailed description, including engine or equipment-unit make, model, manufacture year (for portable engines only), rated brake horsepower, throughput, capacity, emission control equipment, and serial number;
 - (5) necessary engineering data, emissions test data, or manufacturer's emissions data to demonstrate compliance with the requirements as specified in sections 2455, 2456, and 2457;
 - (6) for resident engines, a copy of either a current permit to operate that was granted by a district, or documentation as described in section 2452 (~~kkk~~); and
 - (7) the printed name and signature of the responsible official and date of the signature.
- (h) For TSE, application for registration and the appropriate fee(s) as specified in section 2461, shall be submitted in a format approved by the Executive Officer and include, at a minimum, the following information:

- (1) the name of applicant, including mailing address and telephone number;
 - (2) a brief description of typical engine or equipment-unit use;
 - (3) engine or equipment-unit description, including type and rated brake horsepower; and
 - (4) the printed name and signature of the responsible official and date of the signature.
- (i) All registered engines and equipment units shall have a designated home district as defined in section 2452 (a) according to the following:
- (1) Owners holding valid registration(s) prior to the effective date shall designate in writing to the Executive Officer a home district within 90 days of the effective date of this regulation. The Executive Officer shall designate the home district for any and all registered engines and equipment units for existing registration program participants that fail to designate a home district;
 - (2) a home district shall be designated on each application for initial registration of an engine or equipment unit; and
 - (3) except for registered engines or equipment units owned by a rental business or involved in a third part rental, if the engine or equipment unit, based on averaging of annual operation in each district from the three annual reports submitted during the 3 year registration cycle, operated the largest percentage of the time in a district other than the designated home district, the owner shall change the home district designation at the time of renewal. The change is not required if the difference between the home district operation percentage and the district with the largest operating percentage is 5 percent or less.
- (j) Engines or equipment units owned and operated for the primary purpose of rental by a rental business shall be identified as rental at the time of application for registration and shall be issued a registration specific to the rental business requirements of this article. Misrepresentation of portable engine or equipment unit use in an attempt to qualify under the rental business definition shall be deemed a violation of this article.
- (k) New applications for non-operational engines or equipment units will not be accepted by the Executive Officer.
- (l) Once registration is issued by the Executive Officer, district permits or registrations for engines or equipment units registered in the Statewide Registration Program are preempted by the statewide registration and are, therefore, considered null and void, except for the following circumstances where a district permit shall be required:
- (1) engines or equipment units used in a project(s) operating in the OCS. The requirements of the district permit or registration apply to the registered engine or equipment unit while operating at the project(s) in the OCS; or

- (c) After obtaining registration in accordance with this article, an owner or operator of the registered engines or equipment units:
 - (1) shall comply with all conditions set forth in the issued registration. Failure to comply with such conditions shall be deemed a violation of this article; and
 - (2) may operate within the boundaries of the State of California so long as such registered engines or equipment units comply with all applicable requirements of this article and any other applicable federal or State law.
- (d) Districts shall provide the Executive Officer with written reports or electronic submittals via the Internet, describing any inspections and the nature and outcome of any violation of local, State or federal laws by the owner or operator of registered engines or equipment units. The Executive Officer shall make available to all districts such information via the Internet.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2455. General Requirements.

- (a) The emissions from engines or equipment units registered under this article shall not, in the aggregate, interfere with the attainment or maintenance of any California or federal ambient air quality standard. The emissions from one or more registered engines or equipment units, exclusive of background concentration, shall not cause an exceedance of any ambient air quality standard. This paragraph shall not be construed as requiring operators of registered engines or equipment units to provide emission offsets for engines or equipment units registered under this article.
- (b) Engines or equipment units registered under this article shall comply with article 1, chapter 3, part 4, division 26 of the California Health and Safety Code, commencing with section 41700.
- (c) Except for engines or equipment units permitted or registered by a district in which an emergency event occurs, an engine or equipment unit operated during an emergency event as defined in section 2452 (h) of this article, is considered registered under the requirements of this article for the duration of the emergency event and is exempt from sections 2455, 2456, 2457, 2458, and 2459 of this article for the duration of the emergency event provided the owner or operator notifies the Executive Officer within 24 hours of commencing operation. The Executive Officer may for good cause refute that an emergency event under this provision exists. If the Executive Officer deems that an emergency event does not exist, all operation of engines and equipment units covered by this provision shall cease operation immediately upon notification by the Executive Officer.

Misrepresentation of an emergency event and failure to cease operation under notice of the Executive Officer shall be deemed a violation of this article.

- (d) For the purposes of registration under this article, the owner or operator of a registered equipment unit must notify the U.S. EPA and comply with 40 CFR 52.21 if:
 - (1) the registered equipment unit operates at a major stationary source under 40 CFR 51.166 or 52.21, and
 - (A) the major stationary source is located within 10 kilometers of a Class I area; or
 - (B) the registered equipment unit, operating in conjunction with other registered equipment units, operates at the major stationary source and its operation would be defined as a major modification to the stationary source under 40 CFR 51.166 or 52.21; or
 - (2) the registered equipment unit, operating in conjunction with other registered equipment units, would be defined as a major stationary source, as defined under 40 CFR 51.166 or 52.21.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2456. Engine Requirements.

- (a) For TSE, no air contaminant shall be discharged into the atmosphere, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke designated as No. 2 on the Ringelmann Chart. No other requirements of this section are applicable to TSE.
- (b) Registered diesel pile-driving hammers shall comply with the applicable provisions of section 41701.5 of the California Health and Safety Code and are otherwise exempt from further requirements of this section.
- (c) Registered diesel engines used on a crane 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).

- (~~ed~~) To be registered in the Statewide Registration Program, a registered engine rated less than 50 brake horsepower shall be a certified compression-ignition engine or a certified spark-ignition engine, unless no emission standards exist for that brake horsepower and year of manufacture. In that event, the engine shall comply with the applicable daily and annual emission limits contained in section 2456 (~~de~~)(6) of this article. No other requirements of this section are applicable to portable engines rated less than 50 brake horsepower.
- (~~de~~) After January 1, 2006, engines rated equal to, or greater than 50 bhp registered under this article shall:
- (1) be certified compression-ignition engines or certified spark-ignition engines that meet the most stringent emissions standard in effect for the applicable horsepower range at the time the application is submitted by the responsible official. Spark-ignition engines that are not certified spark-ignition engines may be registered if they meet the emission standards in Table 1. Subsection (~~de~~)(1) does not apply to certified compression-ignition engines built under the flexibility provisions listed in 40 CFR part 89.102, engines that are resident engines, changes of ownership, or engines that meet the requirements of Title 17 of the California Code of Regulations sections 93116.3(b)(7) or 93116.3.1.
 - (2) meet all applicable requirements in Title 17 of the California Code of Regulations commencing with section 93116;
 - (3) use only fuels meeting the standards for California motor vehicle fuels as set forth in chapter 5, division 3, Title 13 of the California Code of Regulations, commencing with section 2250, or other fuels and/or additives that have been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines;
 - (4) not exceed particulate matter emissions concentration of 0.1 grain per standard dry cubic feet corrected to 12 percent CO₂. This provision does not apply to certified compression-ignition engines, certified spark-ignition engines, or any spark-ignition engine meeting Table 1 requirements;
 - (5) not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as or darker than Ringelmann 1 or equivalent 20 percent opacity; and
 - (6) not exceed the following emission limits:
 - (A) 550 pounds per day per engine of carbon monoxide (CO);
 - (B) 150 pounds per day per engine of particulate matter less than 10 microns (PM₁₀);
 - (C) for registered engines operating onshore, 10 tons for each-pollutant per district per year per engine for NO_x, SO_x, VOC, PM₁₀, and CO in nonattainment areas; and

- (10) Effective January 1, 2010, all registered spark-ignition engines rated at 50 brake horsepower or greater shall be certified spark-ignition engines or shall meet Table 1 requirements. For those spark ignition engines that are not certified spark-ignition engines or do not meet Table 1 requirements, the registration shall expire on December 31, 2009 and the engine will not be allowed to operate under the authority of this regulation.
- (ef) All registered engines shall be equipped with a functioning non-resettable hour meter, fuel meter or other operation tracking device approved by the Executive Officer. Engines registered prior to the effective date of this regulation, that are not equipped with a functional non-resettable hour meter, fuel meter or other operation tracking device shall install one and notify ARB in writing within 6 months of the effective date of this regulation.
- (fg) Registered TSE is exempt from district New Source Review and Title V programs, including any offset requirements. Further, emissions from registered TSE shall not be included in Title V or New Source Review applicability determinations.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

Table 1 Spark-ignition Engine Requirements*

<i>Pollutant Emission Limits</i>		
<i>NO_x**</i>	<i>VOC**</i>	<i>CO**</i>
80 ppm _{dv} NO _x (1.5 g/bhp-hr)	240 ppm _{dv} VOC (1.5 g/bhp-hr)	176 ppm _{dv} CO (2.0 g/bhp-hr)

* These requirements are in addition to requirements of section 2455 and 2456.

** For the purpose of compliance with this article, ppm_{dv} is parts per million @ 15 percent oxygen averaged over 15 consecutive minutes. Limits of ppm_{dv} are the approximate equivalent to the stated grams per brake horsepower hour limit based on assuming the engine is 24.2 percent efficient.

§ 2458. Recordkeeping and Reporting.

- (a) Except for registered engines owned by a rental business, used in a third-party rental, operated by a PEPS, used on a crane, or TSE, the owner of registered engines, including engines otherwise preempted under section 209 (e) of the federal Clean Air Act, or registered equipment units shall maintain records of operation of each registered engine and equipment unit. Recordkeeping for engines not previously required to maintain records shall begin upon the effective date of the regulation or January 1, 2007, which ever is later. For engines not previously required to have an hour meter, fuel meter or other device approved by the Executive Officer, the owner or operator shall record hours of operation until the hour meter, fuel meter or other device approved by the Executive Officer has been installed. The records shall be maintained at a central place of business for five years, and made accessible to the Executive Officer or districts upon request. Records shall be maintained in a format approved by the Executive Officer and include, at a minimum, all of the following:
- (1) engine or equipment unit registration number;
 - (2) recordings from an hour meter, fuel meter, or other device approved by the Executive Officer, and the corresponding dates of the recordings for each registered engine or equipment unit based on the following:
 - (A) for each project as defined in 2452 (~~ffgg~~) or (~~eggh~~), readings shall be recorded prior to the commencement of operation and at the completion of the project; or
 - (B) for ongoing operation of a registered engine or equipment unit at multiple locations within a stationary source, readings shall be recorded at the beginning and end of each calendar week; or
 - (C) for each location, readings shall be recorded prior to commencement of operation and upon completion of operation at that location.
 - (3) For registered engines and equipment units subject to a daily operational limitation, daily records of either hours of operation, fuel usage, or process throughput as applicable.
 - (4) For equipment units subject to the requirements of section 2457(b)(3), daily throughput shall be the sum of measurements of material introduced into the equipment unit. These measurements shall be taken at the initial loading point(s) of the equipment unit.
 - (5) recordings from an hour meter, fuel meter, or other device approved by the Executive Officer and the corresponding dates of the recordings any time an engine or equipment unit is undergoing service, repair, or maintenance; and
 - (6) for each start and stop reading specified in (2) and (3) above, the location identified by district, county, or other indicator (i.e., street address, UTM coordinates, etc.)

- (e) Except for registered engines or equipment units owned by a rental business, used in a third-party rental, operated by a PEPS, used on a crane, or TSE, the owner of a registered engine or equipment unit shall provide the Executive Officer an annual report signed by the responsible official, in a format approved by the Executive Officer, by March 1 of each calendar year containing all of the following information:
- (1) the reporting year;
 - (2) the registration number of each registered engine and/or equipment unit;
 - (3) for registered engines, quarterly summaries for each district or county the total fuel usage in gallons per quarter, or total hours of operation per quarter, for each registered engine; and
 - (4) for registered equipment units, quarterly summaries for each district or county in which the registered equipment unit was operated and the total process weight or throughput.
- (f) The owner of a registered engine or equipment unit owned by a rental business or used in a third-party rental transaction shall provide the Executive Officer an annual report signed by the responsible official, in a format approved by the Executive Officer, by March 1 of each calendar year containing all of the following information:
- (1) the reporting year;
 - (2) the registration number of each registered engine and/or equipment unit;
 - (3) total hours of operation for the reporting year for each registered engine based on, and including, beginning and ending annual hour meter readings and dates upon which the total hours of annual operation calculation is based;
 - (4) list of all counties in which the registered engine operated in during the reporting year as reported by the entity(ies) that operated the registered engine;
 - (5) estimate of the percentage of total hours for each engine operated in each of the counties identified in (4) above; and
 - (6) for registered equipment units, quarterly and annual summaries for each district or county in which the registered equipment unit was operated and the total process weight or throughput.
- (g) the owner or operator of a registered engine or equipment unit used by a PEPS shall provide the Executive Officer an annual report, in a format approved by the Executive Officer, by March 1st of each calendar year containing all of the following information:
- (1) the reporting year;
 - (2) the registration number of each registered engine and/or equipment unit;
 - (3) total hours of operation; and
 - (4) estimate of the percentage of hours or fuel usage for the three counties in which the registered engine or equipment unit operated the most.

- (h) Records requests made by a district or Executive Officer shall be made to the responsible official. The responsible official shall provide the requested records within 30 days from receipt of the request. Failure to provide the records by the specified date shall be deemed a violation of this article.
- (i) Each district shall provide the Executive Officer with an annual report, in a format approved by the Executive Officer, by March 31 following the year in which the information was collected containing all of the following information:
 - (1) the number of portable engines and equipment units inspected;
 - (2) the number of portable engines and/or equipment units found operating without valid district permits or statewide registrations;
 - (3) the number of registered engines and equipment units inspected; and
 - (4) summary of results of inspections.
- (j) Vendors selling new portable engines and/or equipment units in California shall:
 - (1) notify the buyer about this regulation; and
 - (2) on a monthly basis submit to the Executive Officer the number of portable engines and/or portable equipment units sold by the vendor for use in California including: the name, address, and contact information of the purchaser, and description of the engine and/or equipment unit including make, model, and engine family name.
- (k) Registered diesel engines used on a crane shall comply with the applicable requirements in Title 13 of the California Code of Regulations commencing with section 2449 and are otherwise exempt from the requirements of this section.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2459. Notification.

- (a) Except as listed in subsection (d) of this section, if a registered equipment unit will be at a location for more than five days, the owner or operator of that registered equipment unit, shall notify the district in writing in a format approved by the Executive Officer, within two working days of commencing operations in that district. If the registered equipment unit is to be moved to different locations within the same district, the owner or operator shall be subject to the notification requirements above, unless the owner or operator and the district, by mutual agreement, arrange alternative notification requirements on a case-by-case basis. The notification shall include all of the following:
 - (1) the registration number of the registered equipment unit;

(k) Portable engines qualifying for initial registration as resident engines per section 2452(~~kk~~)(2) shall use the Table 2 fee schedule. The fees collected subject to this section shall be distributed to the districts, except that \$270 dollars per engine for initial registration, and an additional \$80 dollars per engine shall be retained by the Air Resources Board to provide for administrative costs. The fees shall be determined as follows:

(1) For tier 1 engines, as defined in section 2452(~~uvv~~), registration fees will be based on the year listed in Table 2, as determined below:

(A) Where date of purchase can be verified by the Executive Officer, the earlier of:

- (1) for engines ≥ 50 bhp and < 100 bhp: year of purchase or 2004;
- (2) for engines ≥ 100 bhp and < 300 bhp: year of purchase or 2003;
- (3) for engines ≥ 300 bhp and < 600 bhp: year of purchase or 2001;
- (4) for engines ≥ 600 bhp and ≤ 750 bhp: year of purchase or 2002;
- (5) for engines > 750 bhp: year of purchase or 2006.

(B) Where the date of purchase can not be verified, the model year shall be used.

(2) For tier 2 engines, as defined in section 2452(~~www~~), registration fees as listed in Table 2 will be based on the year the engine was purchased (as verified by the Executive Officer) or the model year of the engine (if purchase date is not available).

Table 2 Registration Fees For Resident Engines Per Section 2452(~~kk~~)(2)

<i>Portable Engine Date*</i>	<i>Application Submitted on or Before 12/31/07</i>	<i>Application Submitted in 2008</i>	<i>Application Submitted in 2009</i>
1996	\$2,353	\$3,130	\$5,000
1997	\$2,195	\$2,920	\$4,685
1998	\$2,038	\$2,710	\$4,370
1999	\$1,880	\$2,500	\$4,055
2000	\$1,723	\$2,290	\$3,740
2001	\$1,565	\$2,080	\$3,425
2002	\$1,408	\$1,870	\$3,110
2003	\$1,250	\$1,660	\$2,795
2004	\$1,093	\$1,450	\$2,480
2005	\$935	\$1,240	\$2,165
2006	\$778	\$1,030	\$1,850

*As determined in section 2461(k)

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2462. Duration of registration.

- (a) Except for registrations that will expire on December 31, 2009 pursuant to sections 2456(~~de~~)(10) and 17 CCR 93116.3(b)(1)(A), registrations and renewals will be valid for three years from date of issuance. For change of ownership, the registration shall retain the original expiration date, except where the registration has expired.
- (b) The Executive Officer shall mail to the owner of a registered engine or equipment unit a renewal invoice at least 60 days prior to the registration expiration. Failure to send or receive a renewal invoice does not relieve the responsible official from paying all applicable fees when due.

NOTE: Authority cited: Sections 39600, 39601, 41752, 41753, 41754, 41755, 43013(b) and 43018, Health and Safety Code. Reference: Sections 41750, 41751, 41752, 41753, 41754, and 41755, Health and Safety Code.

§ 2463. Suspension or Revocation of Registration.

- (a) The Executive Officer for just cause may suspend or revoke registration in any of the following circumstances:
 - (1) the holder of registration has violated one or more terms and conditions of registration or has refused to comply with any of the requirements of this article;
 - (2) the holder of registration has materially misrepresented the meaning, findings, effect or any other material aspect of the registration application, including submitting false or incomplete information in its application for registration regardless of the holder's personal knowledge of the falsity or incompleteness of the information;
 - (3) the test data submitted by the holder of registration to show compliance with this regulation have been found to be inaccurate or invalid;
 - (4) enforcement officers of the ARB or the districts, after presentation of proper credentials, have been denied access, during normal business hours or hours of operation, to any facility or location where registered engines and equipment units are operated or stored and are prevented from inspecting such engines or equipment units as provided for in this article (the duty to provide access applies whether or not the holder of registration owns or controls the facility or location in question);
 - (5) enforcement officers of the ARB or the districts, after presentation of proper credentials, have been denied access to any records required by this regulation for the purpose of inspection and duplication;