

**FINAL REGULATION ORDER  
IN-USE OFF-ROAD DIESEL FUELED FLEETS**

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**Note: Proposed modifications are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions, compared to the preexisting regulatory language. The symbol “\*\*\*\*\*” indicates that regulatory language not being amended is not shown.**

Amend sections 2449, 2449.1, and 2449.2, title 13, California Code of Regulations, to read as follows:

**§ 2449 General Requirements for In-Use Off-Road Diesel-Fueled Fleets**

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**(c) Definitions**

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**(26) “Forest operations”** means (A) forest fire prevention activities performed by public agencies, including but not limited to construction and maintenance of roads, fuel breaks, firebreaks, and fire hazard abatement or (B) cutting or removal or both of timber, other solid wood products, including Christmas trees, and biomass from forestlands for commercial purposes, together with all the work incidental thereto, including but not limited to, construction and maintenance of roads, fuel breaks, firebreaks, stream crossings, landings, skid trails, beds for falling trees, fire hazard abatement, and site preparation that involves disturbance of soil or burning of vegetation following forest removal activities. Forest operations include the cutting or removal of trees, tops, limbs and or brush which is processed into lumber and other wood products, and or for landscaping materials, or biomass for electrical power generation. Forest operations do not include conversion of forestlands to other land uses such as residential or commercial developments.

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**(39) “Non-Profit Training Center”** means an entity that operates a program for training in the use of off-road vehicles and that (A) is a community college program that trains students in the use of off-road vehicles or (B) qualifies as a non profit or not for profit organization under title 26 Internal Revenue Code section 501(a), (c)(3), (c)(5), or (c)(6). Any vehicles that are not used for an off-road training program are not considered part of a non-profit training center and must be considered a separate fleet.

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**(e) Special Provisions/Compliance Extensions**

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**(6) Compliance Extension for Equipment Manufacturer or Installer Delays** - A fleet 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 or installer delays as long as all the conditions below are met:

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

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

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

(D) Documentation from the manufacturer or the installer that there is a delay, such that the equipment or vehicle will be received or installed after the compliance date.

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**(8) 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 federal or state requirements for safety or health, occupational safety and health requirements, mining safety and health requirements, or an ongoing local air district permit condition, such as for use of a diesel oxidation catalyst, impossible technologically infeasible. 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. The Executive Officer shall accept the official findings of the responsible federal or state agency (i.e., the federal or state agency that promulgates safety requirements) that compliance with the requirements of this regulation would make compliance with the federal and state safety or health requirements impossible technologically infeasible. In the absence of such a declaration by the VDECS manufacturer or official findings of a responsible federal or state agency, 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 or equipment manufacturers, or other equally reliable sources. The request will only be approved if the requesting party has made a thorough effort to find a safe method for installing and operating the VDECS, including considering the use of mirrors, 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, Divisions of Occupational Safety and Health or federal or state mine safety laws,~~ federal or state requirements for safety or 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.

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**(g) Reporting** – Reporting is required for each and every fleet. Large and medium fleets may report separately for different divisions or subsidiaries of a given company or agency. Fleet owners may submit reporting information using forms (paper or electronic) approved by the Executive Officer.

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**(4) Selling Vehicles** – Any person selling a vehicle with an engine subject to this regulation in California must notify ARB within 30 days from the date the vehicle was sold. If the reporting date under section 2449(g)(2) occurs within 30 days of the vehicle being sold, the annual reporting may serve as the notification to ARB that the vehicle was sold.

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Note: Authority cited: Sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39656, 39658, 39659, 39665, 39667, 39674, 39675, 40000, 41511, 42400, 42400.1, 42400.2, 42400.3.5, 42402, 42402.1, 42402.2, 42402.4, 42403, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code. Reference: Sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39656, 39657, 39658, 39659, 39665, 39667, 39674, 39675, 40000, 41511, 42400, 42400.1, 42400.2, 42402.2, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code.

## § 2449.1 NOx Performance Requirements

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### (a) Performance Requirements

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**(2) BACT Requirements** – Each year, each fleet must determine if it will be able to meet the fleet average requirements for the next March 1 compliance date, and if not, the following BACT requirement must be met. If a fleet does not meet the NOx target rate in section 2449.1(a)(1), it must meet the BACT turnover requirements in section 2449.1(a)(2)(A) below.

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### (A) Turnover Requirements for Fleets Not Meeting NOx Target Rate –

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**1. Turnover Rate** – If a fleet does not meet the NOx Target Rate in section 2449.1(a)(1), it must demonstrate that it has turned over the required percent of the total maximum power of the fleet that existed on March 1 of the previous year since March 1 of the previous year. Any carryover turnover credit previously accrued may be applied towards the turnover required in a later year. The required turnover percents to demonstrate on each compliance date are described below in a. through e.

- a. 2010: 8 percent.
- b. 2011 and 2012: 4.8 percent.
- c. 2013:
  - i. 14.4 percent for large fleets that did not meet the NOx fleet average target in 2011 or 2012,
  - ii. 11.2 percent for large fleets that met the NOx fleet average target in 2011 but not 2012, and
  - iii. 8 percent for large fleets that (1) met the NOx fleet average target in 2012, (2) had all vehicles with a Tier 1 or higher engine qualify for a turn over exemption under section 2449.1(a)(2)(A)5, or (3) are not otherwise subject to the March 1, 2012, requirements pursuant to sections 2449.1(a)(1) and 2449.1(a)(2) and for all medium fleets.
- d. 2014 and 2015: 8 percent.
- e. 20152016 and later: 10 percent.

### 2. Carryover turnover credit –

- a. **Beginning** - All fleets begin with zero carryover turnover credit on March 1, 2009. All fleets may begin accumulating carryover turnover credit on March 1, 2009. To claim credit, fleets must submit to ARB and retain records as described in sections 2449(g) and (h).
  - i. **Credit for Early Repowers** - Fleets that have repowered their vehicles with Tier 1 or higher engines before March 1, 2009 ~~begin~~ with will accumulate a carryover turnover credit (in horsepower)

equal to: the maximum power of Tier 1 or higher repower engines installed in affected vehicles before March 1, 2009. The credit can only be claimed for engines that remain in the fleet for the full duration of the year that the credit is taken. ~~To claim credit, fleets must keep adequate records as described in section 2449(h).~~

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**iii. Double Credit for Early NOx Retrofits** – Fleets that have installed VDECS that have been verified as achieving NOx reductions on their vehicles before March 1, 2011~~09~~ ~~begin with~~ will accumulate a carryover turnover credit (in horsepower) equal to: 2 multiplied by (Verified Percent NOx Reduction divided by 60 percent) multiplied by (Maximum power on which VDECS verified to achieve NOx reductions was installed before March 1, 2011~~09~~).

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**b. Accumulating carryover turnover credit –**

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**iii. Repower Credit**– From March 1, 2010 through March 1, 2012, a medium fleet that did not accumulate any credit under (i) above shall accumulate carryover turnover credit each year equal to the total maximum power of Tier 2 or higher repower engines installed in affected vehicles in the 12 months prior to March 1 of the year in which the carryover is calculated. From March 1, 2010 through March 1, 2011, a large fleet that did not accumulate any credit under (i) above shall accumulate carryover turnover credit each year equal to the total maximum power of Tier 2 or higher repower engines installed in affected vehicles in the 12 months prior to March 1 of the year in which the carryover is calculated.

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**3. Order of Turnover** - All engines in a fleet that were not subject to a PM standard for new engines (Tier 0 and Tier 1 with no PM standard, i.e., Tier 1 engines between 50 and 174 horsepower), except those in vehicles that qualify for an exemption under section 2449.1(a)(2)(A)4., must be turned over before turnover of any other higher tier engines may be counted toward the turnover requirements in section 2449.1(a)(2)(A) or toward accumulating carryover turnover credit. A fleet may, however, receive carryover turnover credit pursuant to section 2449.1(a)(2)(A)2.a.iii for a VDECS verified to achieve NOx reductions installed on an engine, regardless of the engine's tier.

**4. Exemptions** - A vehicle is exempt from the turnover of section 2449.1(a)(2)(A)1. if all vehicles in the fleet that do not qualify for an exemption under this section have been turned over and the vehicle meets one of the following conditions:

- a. On the compliance date, the vehicle is less than 10 years old from the date of manufacture;
- b. The vehicle meets all of the following specialty vehicle criteria:
  - i. The fleet has turned over all other vehicles first,
  - ii. No repower is available for the specialty vehicle, as demonstrated to the Executive Officer,
  - iii. A used vehicle with a cleaner engine is not available to serve a function and perform the work equivalent to that of the specialty vehicle, as demonstrated to the Executive Officer, and
  - iv. The specialty vehicle has been retrofit with highest level VDECS,
- c. The vehicle has been retrofitted within the last six years with a Level 2 or 3 VDECS that was highest level VDECS at the time of retrofit, or
- d. The vehicle has a Tier 4 interim or Tier 4 final engine.
- e. The vehicle has the highest level VDECS installed prior to March 1, 2011, except that this exemption may be applied to no more than 15 percent of a fleet's total horsepower as of March 1, 2010.

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Note: Authority cited: Sections 39002, 39515, 39516, 39600, 39601, 39602, 40000, 41511, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code. Reference: Sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39656, 39657, 39658, 39659, 39665, 39667, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code.

## § 2449.2 PM Performance Requirements

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### (a) Performance Requirements -

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**(2) BACT Requirements** – Each year, each fleet must determine if it will be able to meet the fleet average requirements for the next March 1 compliance date, and if not, the following BACT requirement must be met. If a fleet does not meet the Diesel PM Target Rate in section 2449.2(a)(1), it must meet the BACT Retrofit Requirements in section 2449.2(a)(2)(A). Fleets that fail to meet both an applicable NOx target rate in section 2449.1(a)(1) and the Diesel PM Target Rates in section 2449.2(a)(1) in a compliance year must first meet the BACT turnover requirements in section 2449.1(a)(2) in that year and then meet the BACT Retrofit Requirements in section 2449.2(a)(2)(A) in that year.

### **(A) PM Retrofit Requirements for Fleets Not Meeting Diesel PM Target Rate**

**1. PM Retrofit Rate** - If a fleet does not meet the Diesel PM Target Rate in section 2449.2(a)(1), it must demonstrate that it has retrofitted the required percent of its total maximum power (not including specialty vehicles retrofitted and exempted from turnover in section 2449.1(a)(2)(A)4.b.) with highest level VDECS since March 1 of the previous year, as described below. Any carryover retrofit credit previously accrued may be applied towards the retrofits required. If the VDECS is not new (i.e., is being reused), it must have been taken from a vehicle that is no longer operating in California. Fleets may count acquisition of vehicles with Tier 4 interim or Tier 4 final engines or retirement of Tier 0 vehicles toward the retrofit requirement, as described below. The required retrofit percents to demonstrate on each compliance date are described below:

2010: 20 percent.

2011 and 2012: 12 percent.

2013: 36 percent for large fleets that did not meet the PM fleet average target in 2011 or 2012, 28 percent for large fleets that met the PM fleet average target in 2011 but not 2012, and 20 percent for large fleets that met the PM fleet average target in 2012, for fleets that were not subject to required retrofit by March 1, 2012 pursuant to section 2449.2(a)(2)(A), and for all medium fleets.

2014: 20 percent.

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### **2. Carryover PM retrofit credit –**

**a. Beginning** - All fleets for vehicles remaining in their fleets begin with zero carryover retrofit credit on March 1, 2009. All fleets may begin accumulating carryover retrofit credit on March 1, 2009.

- i. Double Credit for Early PM Retrofits** – Fleets that have installed the highest level VDECS on their vehicles before January 1, 2010 ~~begin~~ with will accumulate a carryover retrofit credit equal to: 2 multiplied by total maximum power of engines on which highest level VDECS was installed before January 1, 2010, unless the contract for funding the VDECS stipulates single credit for installation of the VDECS.
- ii. Single Credit for Other PM Retrofits Before Initial Compliance Date** – Small and Mmedium fleets that install highest level VDECS on their vehicles ~~between January 1, 2010 and February 29~~ before March 1, 2012 will accumulate carryover retrofit credit equal to: 2 multiplied by total maximum power of engines on which highest level VDECS was installed. Small fleets that install highest level VDECS on their vehicles between March 1, 2012 ~~January 1, 2010~~ and February 28, 2014 accumulate carryover retrofit credit equal to total maximum power of engines on which highest level VDECS was installed.

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Note: Authority cited: Sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39656, 39658, 39659, 39665, 39667, 39674, 39675, 40000, 41511, 42400, 42400.1, 42400.2, 42400.3.5, 42402, 42402.1, 42402.2, 42402.4, 42403, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code. Reference: Sections 39002, 39515, 39516, 39600, 39601, 39602, 39650, 39656, 39657, 39658, 39659, 39665, 39667, 39674, 39675, 40000, 41511, 42400, 42400.1, 42400.2, 42402.2, 43000, 43000.5, 43013, 43016, 43018, and 43018.2, Health and Safety Code.