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PROPOSED REGULATION MODIFICATIONS

1. Take out the Words “Should” – Occurs throughout the Regulation

Issue:

The regulation contains the word “should” in many places throughout the regulation. Staff believes the word “should” could incorrectly be interpreted to mean that many provisions in the regulation are optional, rather than mandatory as intended. Staff is therefore proposing to remove all instances of the word “should” throughout the regulation, and will replace this word with “shall”.

2. Yard Trucks – 2449(b) Applicability and 2449(c) Definitions Truck and bus regulation will also need modifications accordingly

Issue:

Yard trucks have the potential to fall under either the off-road regulation, or the truck and bus regulation. In most cases, when determining if a vehicle is subject to the off-road regulation, a fleet needs to determine whether or not the vehicle was manufactured, or intended, to be driven safely on the road. Yard trucks can be sold with either an on-road or off-road engine; this makes it more complicated to determine which regulation this vehicle types falls under. Currently, the basic guidelines below are used to determine which regulation a yard truck falls under:

- Yard truck with on-road engine: In-Use Heavy-Duty Diesel-Fueled Vehicles Regulation (truck and bus regulation),
- Yard truck with off-road engine, not used for agricultural operations: Off-road regulation, and
- Yard truck with off-road engine, used for agricultural operations: Truck and Bus regulation.

Although some yard trucks have off-road engines, these vehicles are still trucks that could potentially be registered to drive on the road. Therefore, to simplify applicability in regards to yard trucks, staff is proposing to include all yard trucks, whether or not they have on-road engines, in the truck and bus regulation.

Proposed language:

2449(b)

(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. Vehicles that are yard trucks are not subject to this regulation.

2449(c) Definitions

(63) "Yard Truck" means a vehicle, with an on-road or off-road engine that is used in moving and spotting trailers and containers at locations or facilities. Yard trucks are also known as yard goats, yard dogs, trailer spotters or jockeys.

3. Low Use Provisions – 2449(c)(43), 2449(c)(64), 2449(e)(7), and 2449.1(a)(2)(A)6.

Issue 1:

The off-road regulation implicitly contains two types of low-use vehicles – year-by-year low-use and permanently designated low-use. These two types of low use are described in more detail in the guidance document available at: <http://www.arb.ca.gov/msprog/ordiesel/faq/faqlowuse.pdf>, and are referred to as: year-by-year low-use, and permanently designated low-use. Staff is proposing to explicitly identify the two types of low-use within the regulation by including language currently available in the guidance document listed above.

Issue 2:

Staff is proposing to raise the low-use threshold from 100 hrs/year to 150 hrs/year

Proposed Language:

2449(c)(64)

(64)(32) “Year-by-Year Low-use vehicle” means a vehicle that operated in California less than ~~400~~150 hours during the preceding 12-month period running from March 1 to end of February. For example, when reporting in 2009, the hours of use between March 1, 2008 and February 28, 2009 would be used to determine low-use status. To be considered a year-by-year low-use vehicle, the fleet owner must submit engine operation data from a functioning non-resettable hour meter.

(A) Vehicles used outside California - Vehicles that operate both inside and outside of California can meet the year-by-year low-use vehicle definition if they are used less than ~~400~~150 hours per year in California.

(B) Three-year rolling average - A vehicle operated only in California for the previous three years and owned by the same owner during that period will be considered year-by-year low-use if it operated on average less than ~~400~~150 hours per year during that previous three-year period.

(C) Emergency operation hours - Hours used for emergency operations are not counted when determining year-by-year low-use status.

2449(c)(43)

(43) “Permanently Designated Low-use vehicle” means a vehicle that has been limited to 150 hours of use for each future 12-month period running from March 1 to end of February. For example, if a fleet permanently designates a vehicle as low-use on March 1, 2010, that vehicle cannot be used more than 150 hours between March 1, 2010 and February 28, 2011 or during any subsequent March 1 to end of February period. To be considered a permanently designated low-use vehicle, the fleet owner must submit engine operation data from a functioning non-resettable hour meter. Only vehicles formerly used 150 hours or more per year may be permanently designated low-use vehicles.

(A) Vehicles used outside California - Vehicles that operate both inside and outside of California can meet the permanently designated low-use vehicle definition if they are used less than 150 hours per year in California.

(B) Emergency operation hours - Hours used for emergency operations are not counted when determining permanently designated low-use status.

2449(e)(7)

(7) Exemption for Low-Use Vehicles – Year-by-year and permanently designated low-use vehicles are exempt from the performance requirements in sections 2449(d)(4) through 2449(d)(6) and 2449(d)(8)

through 2449(d)(10), 2449.1(a), 2449.2(a) and 2449.3(d) but still must meet the idling limits in section 2449(d)(3) and adding vehicles requirements in section 2449(d)(7) and be labeled and reported in accordance with sections 2449(f) and (g). Year-by-year and permanently designated ~~low-use~~ vehicles need not be included when calculating fleet average indices or target rates, when determining fleet size, or when calculating the required horsepower for the BACT turnover and retrofit requirements in sections 2449.1(a)(2) and 2449.2(a)(2).

Vehicles that formerly met the permanently designated low-use vehicle definition, but whose use increases to ~~400~~150 hours per year or greater must meet the adding vehicles requirement in section 2449(d)(7) and meet the BACT requirements or be included in the fleet average calculation by the next compliance date. For example, a formerly permanently designated low-use engine that exceeds ~~400~~150 hours per year between March 1, 2013 and February 28, 2014 must be included in the fleet average indices and target rates reported in 2014. Vehicles that formerly met the year-by-year low-use vehicle definition, but whose use increases to 150 hours per year or greater do not have to meet the adding vehicles requirement in section 2449(d)(7), but must meet the BACT requirements or be included in the fleet average calculation by the next compliance date.

2449.1(a)(2)(A)6.

- 6. Permanently Designating vehicle as low-use** - A fleet may permanently designate a vehicle that was formerly used ~~400~~150 hours or more per year as low-use by limiting its use to less than ~~400~~150 hours per year and committing to keep its use less than ~~400~~150 hours per year.
- a. Only vehicles formerly used ~~400~~150 hours or more per year may be so designated. Vehicles so designated may be counted toward the turnover requirements.
 - b. Once permanently designated as low-use, a vehicle may never again be used more than ~~400~~150 hours per year by the fleet unless the vehicle meets the adding vehicles requirements in section 2449(d)(7).
 - c. A fleet is not obliged to permanently designate a vehicle whose use drops below ~~400~~150 hours per year as low-use, or to count it toward the turnover requirements. If such a vehicle is not permanently designated as low-use, its use may increase beyond ~~400~~150 hours per year in subsequent years.

Various places in the regulation – change reference from “low-use vehicles” to “year-by-year and permanently designated low-use vehicles”.

4. Alternative Fuel Provisions - 2449(d)(1)

Issue 1:

Currently in the regulation, electric vehicles can be incorporated in a fleet (using 0 for the PM and NOx emission factors) and help meet compliance with the regulation’s requirements. However, for many fleets, adding electric vehicles into their off-road fleet will increase the fleet’s total horsepower and could result in (1) bumping the fleet up into the next fleet size category, and/or (2) increasing the amount of vehicle turn over and retrofitting required under the BACT requirements. These consequences have discouraged some fleets from using electric vehicles, which was counter to the intent of this provision. Therefore, staff is proposing to remove electric vehicle horsepower from the fleet’s total horsepower calculation, which will also result in removing this horsepower from all BACT calculations as well.

Issue 2:

Fleets can replace, repower, and convert diesel vehicles to alternative fuel vehicles as compliance options in the regulation. However, as implementation of the regulation began, staff became aware of several inconsistencies within the alternative fuel provisions. Staff is proposing to modify various provisions in the alternative fuel section of the regulation (section 2449(d)(1)) to clarify or remove any ambiguous parts of the language. Additionally, staff proposes to modify the compliance provisions to allow PM retrofit credit for conversions and repowers to alternative fuel or gasoline-powered engines. Previously, credit was only given for diesel vehicles converted to alternative fuel. Staff does not anticipate that these clarifications or modifications will change the intent or tighten the stringency of this provision.

Proposed language:

2449(d)(1)

(1) Vehicles and Systems Used in Place of Diesel Vehicles - Fleets with electric, ~~or alternative fuel, or gasoline-powered~~ vehicles may include such vehicles in their fleet average index and target rate calculations as follows:

(A) Electric and Alternative Fuel and Gasoline-Powered Vehicles Purchased on or after January 1, 2007

1. Fleets may include an ~~electric and alternative fuel~~ or gasoline-powered vehicle purchased on or after January 1, 2007, with a

maximum power 25 horsepower or greater (or that replaced a diesel vehicle with maximum power 25 horsepower or greater) in their fleet average if all of the following conditions are met:

- a. The owner can demonstrate it serves a function and performs the work equivalent to that of diesel vehicles and is used for a purpose for which diesel vehicles are predominantly used,
- b. ~~The electric or alternative fuel vehicle is used predominantly outdoors,~~
- c. ~~The electric or alternative fuel vehicle is not already included in the fleet average emission level requirements for large spark ignition engine fleets in title 13, Section 2775.1; and~~
- d. ~~If the vehicle is an alternative fuel vehicle, t~~The owner must demonstrate that it is certified to a NOx standard less than or equal to the Tier 1 NOx standard for the same horsepower in title 13, CCR, section 2423(b)(1)(A) and is less than or equal to the NOx emissions of a diesel engine of the same model year and horsepower.
- e. If the vehicle is a gasoline-powered vehicle, the owner can identify the diesel vehicle that the gasoline-powered vehicle replaced and show that the diesel vehicle was retired from the fleet within 6 months of the date that the gasoline-powered vehicle was added to the fleet.

2.4. For the purposes of compliance with sections 2449.1(a)(1) and 2449.2(a)(1):

a. Alternative fuel vehicles - ~~e~~Each alternative fuel vehicle should shall use an NOx Emission Factor equal to the NOx emission standard to which its engine is certified in g/bhp-hr. If the alternative fuel vehicle is not certified to a NOx or diesel-PM emission standard, the owner may apply to the Executive Officer to use an emission factor. In the application, the owner must demonstrate that the chosen emission factor is appropriate and not exceeded by the alternative fuel vehicle. The Emission Factor for PM is 0.

b. Gasoline-powered vehicles – Each gasoline-powered vehicle shall use a NOx Emission Factor equal to the gasoline-powered vehicle's HC+NOx certified emission standard in g/bhp-hr multiplied by 0.95. The Emission Factor for PM is 0.

3.2. Fleets may include a diesel vehicle with a maximum power 25 horsepower or greater that has been converted to alternative fuel or gasoline-powered in their fleet average index and target rate calculations. The Emission Factor for NOx remains the same as the emission factor for the diesel vehicle. The Emission Factor for PM is 0.

4. Fleets may include a diesel vehicle with a maximum power 25 horsepower or greater that has been repowered with an alternative fueled or gasoline-powered engine in their fleet average index and target rate calculations as follows:
 - a. Alternative fuel engine** - The NOx Emission Factor for the alternative fuel engine shall be equal to the NOx emission standard to which its engine is certified in g/bhp-hr. If the alternative fuel engine is not certified to a NOx emission standard, the owner may apply to the Executive Officer to use an emission factor. In the application, the owner must demonstrate that the chosen emission factor is appropriate and not exceeded by the alternative fuel vehicle. The Emission Factor for PM is 0.
 - b. Gasoline-powered engine** – Each gasoline-powered engine shall use a NOx Emission Factor equal to the gasoline-powered vehicle’s HC+NOx certified emission standard in g/bhp-hr multiplied by 0.95. The Emission Factor for PM is 0.
3. ~~For the purposes of compliance with sections 2449.1(a)(1) and 2449.2(a)(1), electric vehicles shall be credited as follows:~~
 - a. Max Hp for Electric Vehicles** - ~~For an electric vehicle that replaced a diesel vehicle in the owner’s fleet, the maximum power of the diesel vehicle replaced may be used as the electric vehicle’s Max Hp. For an electric vehicle added to the fleet, the fleet owner may apply to the Executive Officer to use the maximum power of a diesel vehicle that serves the same function and performs equivalent work to that of the electric vehicle. In making his or her determination, the Executive Officer will approve the use of the minimum Max Hp of a diesel vehicle that would be required to perform the same functions and equivalent work. If no request to the Executive Officer is received, the electric vehicle’s own maximum power rating should shall be used.~~
 - b. Double Credit for Electric in 2010-2016** – ~~For compliance dates in 2010 through 2016, the Max Hp of all electric vehicles purchased on or after January 1, 2007 may be doubled in determining the Max Hp that is used in calculating the Diesel PM Index, and as appropriate, NOx Index. An Emission Factor of 0 may be used. The Max Hp of each electric vehicle is included but not doubled in the calculation of Diesel PM Target Rate and NOx Target Rate.~~
 - c. Single Credit for Electric in 2017 and Later** – ~~For compliance dates in year 2017 and later, the Max Hp of all electric vehicles purchased on or after January 1, 2007 is used in determining the Max Hp that is used in calculating the Diesel PM and NOx~~

~~Target Rates, Diesel PM Index, and, as appropriate, NOx Index. An *Emission Factor* of 0 may be used.~~

- ~~4. For the purposes of compliance with sections 2449.1(a)(1) and 2449.2(a)(1), each alternative fuel vehicle should use an Emission Factor equal to the emission standard to which its engine is certified in g/bhp-hr. If the alternative fuel vehicle is not certified to a NOx or diesel PM emission standard, the owner may apply to the Executive Officer to use an emission factor. In the application, the owner must demonstrate that the chosen emission factor is appropriate and not exceeded by the alternative fuel vehicle.~~

(B) Electric Vehicles and Alternative Fuel Vehicle Purchased Prior to January 1, 2007

1. Fleets may include an electric vehicle with a maximum power 25 horsepower or greater (or that replaced a diesel vehicle with maximum power 25 horsepower or greater) in their fleet average if all of the following conditions are met:
- a. The owner can demonstrate it serves a function and performs the work equivalent to that of diesel vehicles and is used for a purpose for which diesel vehicles are predominantly used,
 - b. The electric vehicle is used predominantly outdoors; and
 - c. The electric vehicle is not already included in the fleet average emission level requirements for large spark ignition engine fleets in title 13, Section 2775.1.

2. For the purposes of compliance with sections 2449.1(a)(1) and 2449.2(a)(1), electric vehicles shall be credited as follows:

a.4. GSE Electric Vehicles Purchased Prior to January 1, 2007 -

Electric airport GSE vehicles with a maximum power of 25 horsepower or greater (or that replaced a diesel vehicle with maximum power 25 horsepower or greater) purchased prior to January 1, 2007, may be partially counted in the fleet average calculations as follows:

- i.a. Max Hp for Electric Vehicles - For an electric vehicle that replaced a diesel vehicle in the owner's fleet, the maximum power of the diesel vehicle replaced may be used as the electric vehicle's *Max Hp*. Otherwise, the electric vehicle's own maximum power rating ~~shall~~ should be used.
- ii.b. Include such vehicle's *Max Hp* times 0.2 as the *Max Hp* in calculating Target Rate, Diesel PM Index, and, as appropriate, NOx Index in sections 2449.1(a)(1) and 2449.2(a)(1), along with an *Emission Factor* of 0.

b. Non-GSE Electric Vehicles Purchased Prior to January 1, 2007 -

Electric vehicles with a maximum power of 25 horsepower or greater (or that replaced a diesel vehicle with maximum power 25 horsepower or greater) purchased prior to January 1, 2007, may be partially counted in the fleet average calculations as follows:

- i. Max Hp for Electric Vehicles - For an electric vehicle that replaced a diesel vehicle in the owner's fleet, the maximum power of the diesel vehicle replaced may be used as the electric vehicle's *Max Hp*. Otherwise, the electric vehicle's own maximum power rating shall be used.
- ii. Include such vehicle's *Max Hp* as the *Max Hp* in calculating Target Rate, Diesel PM Index, and, as appropriate, NOx Index in sections 2449.1(a)(1) and 2449.2(a)(1), along with an *Emission Factor* of 0.

c. Electric Vehicles Purchased on or after January 1, 2007

- i. Max Hp for Electric Vehicles - For an electric vehicle that replaced a diesel vehicle in the owner's fleet, the maximum power of the diesel vehicle replaced may be used as the electric vehicle's *Max Hp*. For an electric vehicle added to the fleet, the fleet owner may apply to the Executive Officer to use the maximum power of a diesel vehicle that serves the same function and performs equivalent work to that of the electric vehicle. In making his or her determination, the Executive Officer will approve the use of the minimum *Max Hp* of a diesel vehicle that would be required to perform the same functions and equivalent work. If no request to the Executive Officer is received, the electric vehicle's own maximum power rating shall be used.
- ii. Double Credit for Electric in 2010-2016 - For compliance dates in 2010 through 2016, the *Max Hp* of all electric vehicles purchased on or after January 1, 2007 may be doubled in determining the *Max Hp* that is used in calculating the Diesel PM Index, and as appropriate, NOx Index. An *Emission Factor* of 0 may be used. The *Max Hp* of each electric vehicle is included but not doubled in the calculation of Diesel PM Target Rate and NOx Target Rate.
- iii. Single Credit for Electric in 2017 and Later - For compliance dates in year 2017 and later, the *Max Hp* of all electric vehicles purchased on or after January 1, 2007 is used in determining the *Max Hp* that is used in calculating the Diesel PM and NOx Target Rates, Diesel PM Index, and, as appropriate, NOx Index. An *Emission Factor* of 0 may be used.

3. Electric vehicles need not be included when determining fleet size, or when calculating the required horsepower for the BACT turnover and retrofit requirements in sections 2449.1(a)(2) and 2449.2(a)(2).

~~2. Non-GSE:~~

- ~~a. Fleet owners may count a non-GSE electric or alternative fuel vehicle purchased prior to January 1, 2007 in the fleet average calculations if all of the following conditions are met:~~
- ~~i. The owner can demonstrate it serves a function and performs the work equivalent to that of diesel vehicles and is used for a purpose for which diesel vehicles are predominantly used,~~
 - ~~ii. the electric or alternative fuel vehicle is used predominantly outdoors,~~
 - ~~iii. the vehicle is not already counted toward the fleet average emission level requirements for large spark ignition engine fleets in title 13, CCR, section 2775.1; and~~
 - ~~iv. if the vehicle is alternative fuel vehicle with a certified NO_x emission level, the certified NO_x emission levels are lower than the NO_x standard for the same model year and horsepower in section 2423(b)(1) and Title 40, CFR, Part 89.112(a) and Title 40, CFR, Part 1039.101.~~
- ~~b. Include such vehicle's Max Hp as the Max Hp in the calculating the Target Rate, Diesel PM Index, and, as appropriate, NO_x Index in sections 2449.1(a)(1) and 2449.2(a)(1). For an electric vehicle, use an Emission Factor of 0. For an alternative fuel vehicle, use an Emission Factor equal to the emission standard to which its engine is certified in g/bhp-hr. If the alternative fuel vehicle is not certified to a NO_x or diesel PM emission standard, the owner may apply to the Executive Officer to use an emission factor. In the application, the owner must demonstrate that the chosen emission factor is appropriate and not exceeded by the alternative fuel vehicle.~~

(C) Stationary or Portable System Used to Replace Mobile Diesel Vehicle

Fleet owners may apply to the Executive Officer to include electric portable or electric stationary systems that replace mobile diesel vehicles, such as an electric conveyor system used to replace diesel haul trucks at a mine, in the fleet average calculations. The system may be considered in the fleet average calculations by including the maximum power of the diesel vehicles replaced in the calculations of Target Rate, Diesel PM Index, and NO_x Index above, along with an *Emission Factor* of 0. In order to count such a system, all the following conditions must be met:

1. The owner must demonstrate that it replaced an off-road diesel fueled vehicle subject to this regulation on or after January 1, 2007, and
2. The system is not already counted toward the fleet average emission level requirements for large spark ignition engine fleets in title 13, CCR, section 2775.1 or for portable diesel engine fleets in title 17, CCR, section 93116.3.

~~(D) Gasoline-Powered Vehicles Used to Replace Diesel Vehicles -~~

~~Fleets may include a gasoline-powered vehicle of 25 horsepower or greater that replaces a diesel vehicle on or after January 1, 2007 in their fleet average only if all the following conditions are met:~~

- ~~1. The owner can identify the diesel vehicle that the gasoline-powered vehicle replaced and show that the diesel vehicle was retired from the fleet within 6 months of the date that the gasoline-powered vehicle was added to the fleet.~~
- ~~2. The gasoline-powered vehicle serves the same function as the diesel vehicle that it replaced and is of similar horsepower.~~
- ~~3. The fleet would continue to be in compliance with the fleet average emission level requirements for large spark ignition engine fleets in title 13, CCR, section 2775.1 if the gasoline-powered vehicle that replaces a diesel vehicle were excluded from the large spark ignition average.~~
- ~~4. The owner must demonstrate the gasoline-powered vehicle is certified to a NO_x standard less than or equal to the Tier 1 NO_x standard for the same horsepower in title 13, CCR, section 2423(b)(1)(A) and less than or equal to the NO_x emissions of a diesel engine of the same model year and horsepower.~~

~~If qualified, the gasoline-powered vehicle may use the maximum horsepower of the diesel vehicle replaced, a diesel PM emission factor of zero (0), and a NO_x emission factor equal to the gasoline-powered vehicle's HC+NO_x certified emission standard in g/bhp-hr multiplied by 0.95.~~

2449.2(a)(2)(A)1.c.

c. Conversion or Repower of Diesel Vehicles to Alternative Fuel or Gasoline-Powered - Fleets that convert or repower a diesel vehicle subject to the regulation to alternative fuel or gasoline-powered may count the max power of the vehicle converted or repowered toward the required hp to be retrofit under section 2449.2(a)(2)(A)1. or to accumulate carryover PM retrofit credit.

5. New Fleet Requirements - 2449(d)(5)

Issue:

Currently this language is ambiguous regarding whether or not a new fleet always has to meet the fleet average targets, or if the fleet may meet the BACT requirements on other compliance dates after their first compliance date. Additionally, it does not specify what fleet targets (which compliance year, whether for large, medium, or small fleets) the fleet must meet. Staff is proposing to clarify exactly what fleet averages must be met, and when the fleet can start complying with the BACT requirements if they want to do so.

The definition of “new fleet” is shown below:

2449(c)(36) “New fleet” means a fleet that is acquired or that enters California after March 1, 2009. Such fleets may include new businesses or out-of-state businesses that bring vehicles into California for the first time after March 1, 2009.

Staff is proposing upon purchasing vehicles or bringing vehicles into the state, a fleet must meet the following requirements:

Large or Medium fleets: Must be meeting the PM and NOx fleet average targets for the closest future *large fleet* compliance date upon forming/entering the state. For the next applicable compliance date that must be met, the fleet can meet either the fleet average targets, or comply with the BACT requirements.

Small fleet: Must be meeting the PM fleet average target for the closest future small fleet compliance date upon forming/entering the state. For the next applicable compliance date that must be met, the fleet can meet either the PM fleet average target, or comply with the PM BACT requirements.

Proposed language:

2449(d)(5) New Fleets –

(A) New large and medium fleets - New large and medium fleets must meet the fleet average requirements in sections 2449.1(a)(1) and 2449.2(a)(1) for the next large fleet compliance date immediately on purchasing vehicles subject to the regulation or bringing such vehicles into the State of California for the first time after March 1, 2009. New fleets do not have the option of complying with the BACT requirements in sections 2449.1(a)(2) and 2449.2(a)(2) for this interim compliance requirement. For the next applicable compliance date that must be met, the new fleet can choose to meet either the fleet average

requirements, or comply with the BACT requirements. For example, if a medium fleet enters the State of California on January 1, 2011, it must be meeting the March 1, 2011 large fleet average requirements immediately upon entering the state. However, the next applicable compliance date for this fleet is not until the first medium fleet compliance date of March 1, 2013, at which time, the fleet may fulfill the compliance requirements by meeting either the fleet average requirements or the BACT requirements.

(B) New small fleets - New small fleets must meet the PM fleet average requirements in section 2449.2(a)(1) for the next small fleet compliance date immediately on purchasing vehicles subject to the regulation or bringing such vehicles into the State of California for the first time after March 1, 2009. New small fleets do not have the option of complying with the PM BACT requirements in section 2449.2(a)(2) for this interim compliance requirement. For the next applicable compliance date that must be met, the new fleet can meet either the fleet average requirements, or comply with the BACT requirements.

(C) All new fleets - New fleets must comply with the idling requirements in section 2449(d)(3) immediately upon purchasing vehicles subject to the regulation or upon bringing such vehicles into the State. 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 2449(g).

6. Adding Vehicle Requirements – 2449(d)(7)

Issue:

This provision has different requirements for adding vehicles based whether a fleet meets the fleet averages or not (i.e., is complying via the fleet average or BACT requirements). Additionally, if a fleet is complying with the BACT requirements, it has a more complicated way to determine what vehicles can be added to the fleet. The chart below is a visual illustration of this provision, and indicates the minimum tier vehicle can be added in each year by a large or medium fleet meeting the BACT requirements. The requirements differ depending on the horsepower of the vehicle.

Horsepower Group	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020					
25-49 hp	T2					T4										
50-74 hp											T4I					
75-99 hp											T3				T4I	
100-174 hp											T3				T4	
175-299 hp											T3				T4I	
300-599 hp											T3				T4I	
600-750 hp											T3				T4I	
Greater than 750 hp										T4I						

Fleets have indicated that complying with this provision is complicated. Staff agree, believe fleets are likely to misunderstand the provisions if they are not simplified, and staff does not feel the added complexity of this provision is necessary. Therefore, staff is proposing to simplify this provision in the following ways:

1. Beginning March 1, 2009, ban on adding Tier 0s for ALL fleets (i.e., Tier 1 or higher);
2. Beginning March 1, 2012, for large and medium fleets, and March 1, 2017, for small fleets, fleets may add only Tier 2 or higher; and
3. Beginning March 1, 2016, for large and medium fleets, and March 1, 2021, for small fleets, fleets may add only Tier 3 or higher.

Currently, the regulation includes a ban on adding Tier 0s that came into effect on March 1, 2009. However, enforcement of this provision has been delayed until authorization from the U.S. EPA (which is needed before ARB can enforce this provision) is granted. Once this authorization is received, ARB staff will begin enforcing this provision.

Proposed language:
2449(d)(7)

(7) Adding Vehicles – The requirements in (A) to (C) below apply to all fleets, except they do not apply to vehicles owned by a lessor and returned to the lessor fleet at the end of a lease, during which the vehicles were included in the fleet of the lessee. Vehicles returned to a lessor fleet must however be included in the lessor fleet’s fleet average demonstration on subsequent compliance dates.

(A) Beginning March 1, 2009 Ban on adding Tier 0s - Beginning March 1, 2009 a fleet may not add a vehicle with a Tier 0 engine to its fleet. The engine must be Tier 1 or higher.

(B) Tier 2 or higher – Beginning March 1, 2012 for large and medium fleets, and March 1, 2017 for small fleets, a fleet may not add a vehicle with a Tier 1 engine to its fleet. The engine must be Tier 2 or higher.

(C) Tier 3 or higher – Beginning March 1, 2016 for large and medium fleets, and March 1, 2021 for small fleets, a fleet may not add a vehicle with a Tier 2 engine to its fleet. The engine must be Tier 3 or higher.

(B) Between the First and Final Target Dates – The following requirements apply between March 1, 2010 and March 1, 2020 for large fleets, between March 1, 2013 and March 1, 2020 for medium fleets, and between March 1, 2015 and March 1, 2025 for small fleets.

1. Fleets Meeting the Target Rates – If a fleet met the fleet average target rates in sections 2449.1(a)(1) and 2449.2(a)(2) on the previous compliance date, when it adds a vehicle to its fleet, the fleet must demonstrate that the fleet still meets the fleet average target rates within three months of adding the vehicle. That is, fleets may not add vehicles that cause them to exceed the most recent fleet average target rates. The added vehicle also must be included in the fleet average demonstration required in sections 2449.1(a) and 2449.2(a) on the next compliance date.

2. Fleets Not Meeting the Fleet Average Targets – If a fleet did not meet the fleet average requirements in sections 2449.1(a)(1) and 2449.2(a)(1) on the previous compliance date, the fleet may not add a vehicle to its fleet that would further increase its emissions above the fleet average target rate, as described below.

a. Large and Medium Fleets – A large or medium fleet that met the BACT requirements in sections 2449.1(a)(2) and 2449.2(a)(2) instead of the fleet average requirements in sections 2449.1(a)(1) and 2449.2(a)(1) on the most recent compliance date may not add a vehicle to its fleet unless all of the following conditions are met:

- i. The engine is Tier 2 or higher. (For the purposes of this requirement, a vehicle may be assumed to meet the new engine emission standard tier in effect for the model year unless the engine is a flexibility engine certified January 1, 2007 or later to the implementation flexibility standards at title 13 CCR, section 2423(d), in which case the emission standard tier to which the engine is certified should be used.)
- ii. The vehicle engine's NO_x Emission Factor (after being adjusted for any VDECS) is less than or equal to the NO_x Target in Table 1 for engines in the same horsepower group for the most recent compliance date.

b. Small Fleets—A small fleet that met the BACT requirements in section 2449.2(a)(2) instead of the fleet average requirements in section 2449.2(a)(1) on the most recent compliance date may not add a vehicle to its fleet unless the following condition is met:

The vehicle engine is Tier 2 or higher. (For the purposes of this requirement, a vehicle may be assumed to meet the new engine emission standard tier in effect for the model year unless the engine is a flexibility engine certified January 1, 2007 or later to the implementation flexibility standards at title 13 CCR, section 2423(d), in which case the emission standard tier to which the engine is certified should be used.

(C) After the Final Target Date – Commencing respectively on March 1, 2020 for large and medium fleets, and March 1, 2025 for small fleets, no fleet owner may add a vehicle to his fleet, unless the vehicle is equipped with an engine meeting the Tier 3, Tier 4 interim, or Tier 4 final emission standards.

7. Compliance After the Final Target Date – 2449(d)(10); and Turnover Exemptions - 2449.1(A)(2)(a)1. – 4.

Issue 1:

As these turnover exemptions are currently structured, it is ambiguous as to whether or not these exemptions expire after 2020. Staff is proposing to clarify in section 2449(d)(10), Compliance after the Final Compliance Date, that these exemptions do not expire after 2020.

Issue 2:

In the regulation, staff intended to have all NOx credits expire after March 1, 2020; PM credits expire for large/medium and small fleets commencing on March 1, 2021, and March 1, 2026, respectively.

Proposed language:

2449(d)(10) Compliance After the Final Target Date –

(A) Commencing respectively on March 1, 2020, if a large or medium fleet does not meet the NOx fleet average target rate for the final target date in section 2449.1(a)(1), the fleet must continue to meet the BACT turnover requirements in section 2449.1(a)(2)(A) and report annually each year until it does so. In meeting the requirements of this paragraph, the fleet owner may not use any previously accrued

carryover NOx credits. Vehicles exempt from turnover under section 2449.1(a)(2)(A)4. are exempt from the requirements of this paragraph.

8. Compliance Certification - 2449(g)(2)(A); and Certificate of Reported Compliance – 2449(I)

Issue: A fleet must submit, each compliance year, certification by the responsible official that the report submitted to ARB is accurate, and that the fleet is in compliance with all regulatory requirements. Additionally, the responsible official can designate a designee to sign on his or her behalf in future years. This process is called Compliance Certification. This certification is commonly confused with the Certificate of Reported Compliance that ARB issues to the fleet once the Compliance Certification from the fleet is received by ARB. Many fleets have found this process confusing because “Certificate” and “Certification” are such similar words, and because Compliance Certification was not required during the initial reporting period, and will only be required going forward once the regulation’s requirements are being enforced. Staff is proposing to change the name of the Compliance Certification process (that must be submitted by a fleet each compliance year) to a name not easily confused with “Certificate”, and to add clarifying language regarding designating an official designee.

Proposed language:

2449(g)(2)(A) Compliance Certification Responsible Official Affirmation of Reporting –

A certification signed by a responsible official or a designee thereof that the information reported is accurate and that the fleet is in compliance with the regulation. The certification must be submitted on a form (paper or electronic) approved by the Executive Officer. If a designee signs the ~~compliance certification~~ affirmation of reporting, a written statement signed by the responsible official designating the designee must be attached to the ~~compliance certification~~ affirmation of reporting and submitted to ARB. This written statement must only be attached the first time a designee signs the affirmation of reporting. If a new designee is appointed at a later time, another written statement signed by the responsible official designating a new designee must be submitted. If the fleet is a Captive Attainment Area Fleet, the ~~certification~~ affirmation of reporting must certify that the fleet’s vehicles did not operate outside the counties listed in 2449(c)(6).

(I) ARB Certificate of Reported Compliance –

After the initial reporting required by section 2449(g)(1) and the ~~annual reporting and compliance certification~~ responsible official affirmation of

reporting required by section 2449(g)(2) is received by ARB, if the ~~reporting~~ initial report or affirmation indicates the fleet is in compliance with the requirements of the in-use off-road diesel vehicle regulation, ARB will provide the fleet with a Certificate of Reported Compliance with the In-Use Off-road Diesel Vehicle Regulation.

9. Order of Turnover – 2449.1(A)(2)(A)3.

Issue:

When fulfilling the NOx BACT requirements, a fleet must first turn over all vehicles without a PM standard (i.e., Tier 0 and Tier 1 “uncontrolled” vehicles) first before higher tiered vehicles can be counted toward the BACT turnover requirements. Many fleets are not aware that Tier 1 engines between 50 – 175 hp are considered “Tier 1 uncontrolled” engines. Staff is concerned that once the regulation is in effect, many fleets may inadvertently find themselves out of compliance because they kept a Tier 1 “uncontrolled” vehicle in their fleet and therefore were not able to take credit for turning over other Tier 1 vehicles. Therefore, to simplify this provision, staff is proposing to revise this language to require fleets to turn over all Tier 0 and Tier 1 vehicles first, before other higher tiered vehicles can be counted toward the BACT turnover requirements in the fleet.

Proposed language: (note: double underline and double strikeout is the current proposal; single underline and single strikeout represents the July 2009 changes that are not yet in effect)

2449.1(a)(2)(A)3.

- 3. Order of turnover** - All Tier 0 and Tier 1 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 per 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.

**10. Extend Double PM VDECS Credit for Large Fleets to March 1, 2012 –
2449.2(a)(2)(A)2.**

Issue:

Staff would like to further incentivize PM VDECS by extending double credit for large fleets that install PM VDECS before March 1, 2012.

Proposed language: (note: double underline and double strikeout is the current proposal; single underline and single strikeout represents the July 2009 changes that are not yet in effect)

2449.2(a)(2)(A)2. -

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 ~~March 1, 2012~~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.

11. Compliance Extension for Large Fleets that met the March 1, 2010, Compliance Requirements

Issue:

At the April 2010 Board Hearing, the Board asked staff to “reward” large fleets that were in compliance with the first large fleet compliance deadline of March 1, 2010, which was not enforced. Staff is proposing to exempt a large fleet from its next applicable compliance deadline if it can demonstrate it met all the applicable compliance requirements on March 1, 2010. The following conditions must be met in order to claim the exemption:

1. The fleet must have reported all applicable fleet information for initial reporting purposes on or before January 1, 2010;
2. The fleet must have met the March 1, 2010, compliance requirements either by meeting the applicable fleet average targets, meeting the applicable Best Available Control Technology (BACT) requirements, or utilizing Reduced Activity Credits or other credits.
3. If the fleet met the March 1, 2010, compliance requirements by meeting the March 1, 2010, PM and NO_x (if applicable) fleet average targets, the fleet must have reported this information by the April 1, 2010, reporting deadline;
4. If the fleet met the March 1, 2010, compliance requirements by performing the required PM and NO_x (if applicable) BACT requirements, or by using PM and NO_x (if applicable) credits, the fleet must have reported this information by the April 1, 2010, reporting deadline; and
5. If the fleet met the March 1, 2010, compliance requirements by using Reduced Activity Credits, the Reduced Activity Application must have been submitted to ARB for approval by May 1, 2010, unless an extension for the fleet was provided by ARB staff.