The Periodic Smoke Inspection "Fleet" Program (PSIP)

- Established to promote self-inspection of fleet vehicles.
- Requires California-based truck and bus fleets with two or more heavy duty diesel vehicles (gross vehicle rating over 14,000 pounds; except for 1998 and older, the rating is over 6,000 pounds) to conduct annual smoke opacity and tampering self-inspections for all of their vehicles.
- To ensure compliance, the Air Resources Board audits maintenance and inspection records and may test a representative sample of vehicles.

For more information on the Periodic Smoke Inspection "Fleet" Program (PSIP) go to:

http://www.arb.ca.gov/enf/hdvip/hdvip.htm

Heavy-Duty Diesel Information Series

California Air Resources Board
Heavy-Duty Diesel Enforcement Program
P.O. Box 2815
Sacramento, California 95812

(916) 322-7061 (from Northern California)
(626) 450-6161 (from Southern California)

For information in alternative formats:

(916) 323-4916 (voice, ARB ADA Coordinator)
(916) 324-9531 (TDD, Sacramento area only)
(800) 700-8326 (TDD, outside of Sacramento)

ED 02/2011

California Environmental Protection Agency | AIR RESOURCES BOARD

The Periodic Smoke Inspection "Fleet" Program (PSIP)

Heavy-Duty Diesel Information Series

http://www.arb.ca.gov

http://www.arb.ca.gov/diesel/mobile.htm
http://www.arb.ca.gov/enf/hdvip/hdvip.htm

1-800-END-SMOG
1-800-242-4450 (outside of CA)

(Photo Courtesy of Jim Lyle, TTI Communications)

FACTS ABOUT
The Periodic Smoke Inspection "Fleet" Program (PSIP)

The Periodic Smoke Inspection Program (PSIP)

In response to public concerns about the health impacts of heavy-duty vehicle smoke emissions, California law requires the owners of California-based truck and bus fleets to perform annual inspections of their vehicles.

The Periodic Smoke Inspection "Fleet" Program serves as a companion to the Heavy-Duty Diesel Inspection "Roadside" program, to ensure that all of California's heavy-duty vehicles are properly maintained, tamper-free and free from excessive smoke.

The PSIP helps everyone by helping to keep our environment pollution-free.

Fleet owners are required to maintain inspection and repair/ retest records for each vehicle.

Program Requirements

All California-based fleets of two or more heavy-duty vehicles (gross vehicle rating over 14,000 pounds; except for 1998 and older, the rating is over 6,000 pounds) are required to perform annual smoke and tamper inspections of their fleet.

Fleet owners are not required to inspect vehicles that are powered by diesel engines until after the 4th model year of the engine. (Example: 2010 engines are exempt from being tested for the PSIP until January 1 of 2014. A 2010 model year engine must be tested sometime during 2014 or it will be in violation of PSIP).

Heavy-duty diesel-powered vehicles that are not part of a fleet or are exclusively for personal use are exempt.

To ensure compliance, the Air Resources Board will randomly audit fleets' maintenance and inspection records, and test a representative sample of vehicles.

Inspection Requirements

All testing must conform to the Society of Automotive Engineers' (SAE) J1667 snap-acceleration test procedure. All vehicles that do not pass the test must be repaired and retested. All testing must be performed using an SAE J1667 smokemeter. A list of smoke meter manufacturers can be found at: *http://www.arb.ca.gov/enf/hdvip/smokemtr.htm*. All testing records must be maintained for a period of two years.

For assistance with testing your fleet, please see this ARB webpage: *http://www.arb.ca.gov/enf/hdvip/hdvip.htm#test_facilities.*

The California Council on Diesel Education and Technology (CCDET) is a joint training effort by community colleges, government, and industry. CCDET was created to assist the trucking and transit industries in complying with the Air Resources Board's anti-smoke regulations, namely the Heavy-Duty Vehicle Inspection Program (HDVIP) and the Periodic smoke Inspection Program (PSIP).

Information about the CCDET can be obtained at this ARB website: *http://www.arb.ca.gov/enf/hdvip/ccdet/ccdet.htm.*

OVERVIEW

The Tire Inflation Regulation

Rule to Reduce Greenhouse Gas Emissions From Vehicles Operating with Under Inflated Tires

In March 2009, the California Air Resources Board approved a new Regulation to reduce greenhouse gas emissions from vehicles operating with under inflated tires.

What Is The Purpose Of The Regulation?

The purpose of this regulation is to reduce greenhouse gas emissions from vehicles operating with under inflated tires by inflating them to the recommended tire pressure rating. By maintaining proper tire pressure, Californians will:

- Eliminate 700,000 metric tons of greenhouse gas emissions;
- Reduce the State's fuel consumption by 75 million gallons;
- Extend the average tire's useful life by 4,700 miles.

What Is The Tire Inflation Regulation?

The Tire Inflation Regulation requires all Automotive Service Providers (ASPs) in California to check and inflate each vehicle's tires to the recommended tire pressure rating, at the time of performing any automotive maintenance or repair service. Spare tires are not included under this regulation unless, the spare tire is in use at the time of service.

What Types Of Vehicles Are Subject To This Regulation?

All vehicles with a Gross Vehicle Weight Rating (GVWR) of 10,000 pounds or less are subject to this regulation. Motorcycles, all terrain vehicles, trailers and off-road equipment are exempt from this regulation.

Who Must Comply With This Regulation?

The regulation applies to all ASPs performing or offering to perform automotive maintenance or repair services in California. The regulation does not apply to autobody and paint facilities; auto glass installers; auto parts distributers or retailers; auto wreckers or dismantlers; or emergency roadside services.

What Type Of Equipment Is Required?

ASPs must perform the tire pressure service using a tire pressure gauge with a total permissible error no greater than $\pm$ 2 PSI and have access to a Tire Inflation Reference that is current within 3 years of publication.

What Are The Record Keeping Requirements?

ASPs are required to indicate on the vehicle service invoice that a tire inflation service was completed and the tire pressure measurements after the services were performed. A copy must be kept for 3 years and made available upon request.

Can The Check And Inflate Service Be Declined?

Yes, the tire inflation service may be declined for the following reasons:

- a tire pressure check and inflate service has been performed within the last 30 days, or
- a tire pressure check and inflate service will be performed within the next 7 days.

In addition vehicle tires inflated with nitrogen gas are subject to the requirements but may refuse the inflation portion of the service if nitrogen is not available at the time of the service.

For More Information

Please visit us on the web at: *www.arb.ca.gov/tirepressure* you may also contact staff at:

Theresa Anderson **916-445-2159** **tmanders@arb.ca.gov**

Jesica Johnston **916-327-5609** **jjohnsto@arb.ca.gov**

To obtain this document in an alternative format or language please contact the ARB's Helpline at (800) 242-4450 or at *helpline@arb.ca.gov*. TTY/TDD/ Speech to Speech users may dial 711 for the California Relay Service.

Para obtener este documento en un formato alterno o otro lenguaje, por favor contacta al telefónico de asistencia de ARB al (800) 242-4450 or at *helpline@arb.ca.gov*. TTY/TDD/Usuarios que hablan pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

FACTS ABOUT

Truck and Bus Regulation Compliance Requirements Summary

Fleets have flexibility to comply

On December 12, 2008, the California Air Resources Board approved the Truck and Bus regulation to significantly reduce particulate matter, or PM, and oxides of nitrogen emissions from existing diesel vehicles operating in California. This fact sheet describes the regulatory requirements consistent with the amendments considered by the Board in December 2010.

What vehicles are affected by the truck and bus regulation?

The regulation applies to nearly all diesel fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned and for privately and publicly owned school buses. Other public fleets, solid waste collection trucks and transit buses are already subject to other regulations and are not part of the truck and bus regulation. Trucks that transport marine containers must comply with the drayage truck regulation.

What are the compliance requirements for heavier trucks and buses?

Engine Model Year Schedule for Heavier Trucks	
Engine Year	Requirement from January 1
Pre-1994	No requirements until 2015, then 2010 engine
1994-1995	No requirements until 2016, then 2010 engine
1996-1999	PM filter from 2012 to 2020, then 2010 engine
2000-2004	PM filter from 2013 to 2021, then 2010 engine
2005-2006	PM filter from 2014 to 2022, then 2010 engine
2007-2009	No requirements until 2023, then 2010 engine
2010	Meets final requirements

Heavier trucks and buses with a GVWR greater than 26,000 pounds would have two primary ways to comply. Fleets could comply with the compliance schedule by engine model year or could use a phase-in option that is more flexible.

Starting January 1, 2012, heavier trucks would be required to meet the engine model year schedule shown to the left. Fleets that comply with the schedule would install the best available PM filter on 1996 model year and newer engines and would replace the vehicle 8 years later. Trucks with 1995 model year and older engines would be replaced starting 2015. Replacements with a 2010 model year or newer engines meet the final requirements, but fleets could also replace with used trucks that would have a future compliance date on the schedule. For example, a replacement with a 2007 model year engine complies until 2023. By 2023 all trucks and buses must have 2010 model year engines with few exceptions. No reporting would be required if complying with this schedule.

Phase-In Option for Heavier Trucks	
Compliance Date	Vehicles with PM Filters
January 1, 2012	30%
January 1, 2013	60%
January 1, 2014	90%
January 1, 2015	90%
January 1, 2016	100%

In addition, there would be a phase-in option that allows fleets to decide which vehicles to retrofit or replace, regardless of engine model year. Fleets must report information about all of their heavier trucks starting January 31, 2012, to use this option.

Fleets could comply by demonstrating they have met the percentage requirement each year as shown in the table. For example, by 2012 the fleet would need to have PM filters on 30 percent of the heavier trucks and buses in the fleet. This option counts 2007 model year and newer engines originally equipped with PM filters toward compliance and would reduce the overall number of retrofit PM filters needed. Any engine with a PM filter regardless of model year would be compliant until at least 2020. Beginning January 1, 2020, all heavier trucks and buses would need to meet the requirements specified in the Compliance Schedule for Heavier Trucks.

Are there any credits or exemptions fleets can use?

Starting January 1, 2012, fleets that report and use the phase-in option for heavier trucks, could take advantage of credits to delay requirements for other heavier trucks in the fleet until 2017 for the following:

- PM filters installed before July 2011
- Early purchase of cleaner engines before 2012 (originally equipped with PM filters)
- Reducing the number of trucks since 2006
- Adding fuel-efficient hybrids or alternative fueled engines to the fleet

All fleets could make any vehicle equipped with a PM filter prior to 2014 compliant until 2020, or could make all heavier vehicles in the fleet exempt from meeting the replacement requirements until 2023 if all heavier trucks in the fleet are equipped with PM filters prior to 2014. Fleets would need to report by January 31, 2014 to take advantage. Vehicles operated less than 1000 miles per year can also be exempt from the general requirements but must be reported in the compliance year.

What are the requirements for lighter trucks and buses?

Lighter trucks and buses with a GVWR of 14,001 to 26,000 pounds would not have compliance requirements until 2015. The Engine Model Year Schedule for Lighter Trucks table lists the compliance dates that would apply by engine model year for lighter trucks. Starting January 1, 2015, lighter trucks with engines that are 20 years or older would need to be replaced with newer trucks. Starting January 1, 2020, all remaining trucks and buses would need to be replaced so that they would all have 2010 model year engines or equivalent emissions by 2023. No reporting would be required.

Engine Model Year Schedule for Lighter Trucks	
Engine Year	Replacement Date
1995 and older	January 1, 2015
1996	January 1, 2016
1997	January 1, 2017
1998	January 1, 2018
1999	January 1, 2019
2003 and older	January 1, 2020
2004-2006	January 1, 2021
2007-2009	January 1, 2023

Fleets would also have the option to install a PM filter retrofit on a lighter truck by 2014 to make the truck exempt from replacement until January 1, 2020, and any lighter truck equipped with a PM filter retrofit prior to July 2011 would receive credit toward the compliance requirements for a heavier truck or bus in the same fleet.

Are there any other provisions for exemptions or delays?

The regulation has special provisions that delay some or all of the compliance requirements, but fleets must report to take advantage of them. By April 29, 2011, fleets would need to report to qualify for lower use and specialty agricultural truck exemptions until 2017 or 2023 and must report hour meter readings for sweepers with auxiliary Tier 0 engines. Fleets would need to report by January 31, 2012 to take advantage of delays until 2014 for small fleets with one to three vehicles, log trucks, lower use construction trucks, and vehicles operating in parts of the state with less polluted air.

What are the requirements for school buses?

School buses with a GVWR more than 14,000 pounds would need to meet PM filter requirements from 2012 to 2014. School bus fleets would need to demonstrate that 33 percent of their buses have PM filters by 2012, 66 percent by 2013 and 100 percent by 2014. If an engine cannot be equipped with a PM filter it will need to be replaced by January 1, 2018. Pre-1977 model year school buses must be replaced by 2012. No reporting is required, but fleets must keep records.

If I decide to sell my vehicle, do I have to notify the buyer of the requirements of this regulation?

Yes. Any person selling a vehicle subject to the Truck and Bus Regulation must provide a specific disclosure statement in writing to the buyer on the bill of sale, sales contract addendum, or invoice. See Regulatory Advisory 416 at *www.arb.ca.gov/enf/advs/advs416.pdf*.

For more information

Other fact sheets and additional information are available at: *www.arb.ca.gov/dieseltruck* or by calling ARB's diesel hotline at (866) 6DIESEL (866-634-3735). To obtain this document in an alternative format or language, please contact (866) 634-3735. TTY/TDD/ Speech to Speech users may dial 711 for the California Relay Service.

In-Use Off-Road Diesel Vehicle Regulation

Overview, Revised February 2014

California Environmental Protection Agency
AIR RESOURCES BOARD

The Off-Road Regulation Applies To:

All self-propelled off-road diesel vehicles 25 horsepower (hp) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation). This includes vehicles that are rented or leased (rental or leased fleets).

Personal use vehicles, vehicles used solely for agriculture, vehicles that are awaiting sale, and vehicles already covered by the Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards (Cargo Handling regulation), are exempt from the Off-Road regulation.

Emergency operations vehicles, dedicated snow removal vehicles, low-use vehicles (used under 200 hours per year, as confirmed by a non-resettable hour meter), and vehicles used a majority of the time (but not solely) for agricultural operations, must be reported to ARB and labeled, but are exempt from the performance requirements of the Off-Road regulation.

Summary:

The overall purpose of the Off-Road regulation is to reduce emissions of oxides of nitrogen (NOx) and particulate matter (PM) from off-road diesel vehicles operating within California. The Off-Road regulation:

- Imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles;
- Requires all vehicles to be reported to ARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled;
- Restricts the adding of older vehicles into fleets starting on January 1, 2014; and
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (i.e., exhaust retrofits).

The requirements and compliance dates of the Off-Road regulation vary by fleet size. For a fleet to determine their size, it must add up all of the off-road horsepower under common ownership or control in the fleet.

Fleet Size Category	Description
Small	Fleet or municipality <= 2,500 hp, or Municipality fleet in low population county, captive attainment area fleet, or non-profit training center, regardless of total hp
Medium	Fleet with 2,501 to 5,000 hp
Large	Fleet with more than 5,000 hp, or All state and federal government fleets, regardless of total hp

Requirements Currently in Effect:

Effective June 2008 for All Fleets: Idling and Disclosure

The following requirements are in effect and being enforced:

Idling Limited to 5 Minutes – Fleets must limit their unnecessary idling to 5 minutes; there are exceptions for vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or in a queue waiting for work.
More information – www.arb.ca.gov/enf/advs/advs377.pdf

Written Idling Policy – Medium and large fleets must have a written idling policy.
More information – www.arb.ca.gov/enf/advs/advs391.pdf
Suggested language – www.arb.ca.gov/msprog/ordiesel/faq/idlepolicyfaq.pdf

Disclosure for Selling Vehicles – The seller (whether a dealer or a contractor with just one vehicle) must provide disclosure of the Off-Road regulation (exact language provided in the regulation) on the bill of sale or invoice, and must keep records that the disclosure was provided for three years after the sale. The seller must also report the vehicle sale to ARB via DOORS within 30 days of the sale.
More information and necessary language – www.arb.ca.gov/enf/advs/advs378.pdf

Effective 2009 for All Fleets: Reporting and Labeling

The following requirements are in effect and being enforced:

Reporting – Reporting can be completed using DOORS, which is ARB's free online reporting tool for the Off-Road regulation. Additionally, hard copy reporting forms are also available. More information on how to report and what information is required is available on the DOORS website at https://ssl.arb.ca.gov/ssldoors/doors_reporting/doors_login.html.

Labeling – After a fleet reports their vehicles to ARB, each vehicle is assigned a unique Equipment Identification Number (EIN). The fleet must label its vehicles within 30 days of receiving EINs. Note that ARB does not issue EIN labels; it is the fleet's responsibility to follow ARB's label specifications and to make or purchase the labels or placards, or paint the EINs on its vehicles. More information on label specifications is available at www.arb.ca.gov/msprog/ordiesel/faq/faq-labeling.pdf.

Off-Road regulation homepage: www.arb.ca.gov/ordiesel

A list of label vendors is available at www.arb.ca.gov/msprog/ordiesel/labelvendors.htm.

Previously, fleets were only required to label the right (starboard) side of the vehicle. However, the labeling provisions of the Off-Road regulation were amended in December 2010 to require labels on both sides of each vehicle. Additionally, fleets reported as 'captive attainment area fleets' must have labels with a green background instead of red. Fleets had until January 1, 2013, to implement both of these changes.

More information on these labeling amendments is available at http://www.arb.ca.gov/msprog/mailouts/msc1208/msc1208.pdf.

Annual Reporting – All fleet owners must review and update their information by March 1st each year that annual reporting is required. Large fleets must report annually from 2012 to 2023, medium fleets from 2016 to 2023, and small fleets from 2018 to 2028. For each annual reporting date, a fleet must report any changes to the fleet, hour meter readings (for low-use vehicles and vehicles used a majority of the time, but not solely, for agricultural operations), and also must submit the Responsible Official Affirmation of Reporting (ROAR) form. All of these items should be submitted using DOORS.

Effective January 1, 2014 for All Fleets: Restrictions on Adding Vehicles

Effective January 1, 2014, there are restrictions on adding older vehicles to a fleet.

ARB received authorization from the United States Environmental Protection Agency (U.S. EPA) on September 13, 2013, to enforce the Off-Road regulation's restrictions on fleets adding vehicles with older tier engines, and will start enforcing beginning January 1, 2014.

Ban on adding Tier 0s – Effective January 1, 2014, a fleet may not add a vehicle with a Tier 0 engine to its fleet.

Prohibition on adding Tier 1s – Also effective January 1, 2014, for large and medium fleets, and January 1, 2016 for small fleets, a fleet may not add any vehicle with a Tier 1 engine. The engine tier must be Tier 2 or higher.

Prohibition on adding Tier 2s – Beginning January 1, 2018, for large and medium fleets, and January 1, 2023, for small fleets, a fleet may not add a vehicle with a Tier 2 engine to its fleet. The engine tier must be Tier 3 or higher.

More information on the adding vehicles requirements is available at http://www.arb.ca.gov/msprog/ordiesel/faq/addingvehicles.pdf.

Upcoming Requirements:

Upcoming Requirements for all Fleets: Performance Requirements

The performance requirements begin:
July 1, 2014, for large fleets
January 1, 2017, for medium fleets
January 1, 2019, for small fleets

Compliance Options – By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year, or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028. These requirements are described further below. Note that although the first deadline for large fleets in 2014 is on July 1, the compliance deadline in all future years will be January 1 (for example, the second compliance deadline for large fleets will be on January 1, 2015).

Meeting the fleet average targets – The fleet average index is an indicator of a fleet's overall emissions rate, and is based on the fleet's average NOx emissions which is determined by the horsepower and model year of each engine in the fleet. If the fleet average index is equal to or less than the fleet average target for a given year, the fleet is not required to take further action to reduce emissions from its vehicles.

OR

Complying with BACT requirements – If a fleet cannot, or does not want to meet the fleet average target in a given year, it may instead choose to comply with the BACT requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage (referred to as the BACT rate) of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. 'Installing VDECS' means installing the highest level VDECS verified by ARB to reduce PM, or installing a VDECS verified to reduce NOx. In order to fulfill the BACT requirements for large and medium fleets, if a VDECS cannot be installed on a vehicle, then that vehicle must be turned over. However, for small fleets, if a VDECS cannot be installed, that vehicle is exempt from the BACT requirements. The BACT rates for each fleet size are shown below.

Large fleets:
2014: 4.8 percent
2015 to 2017: 8 percent
2018 to 2023: 10 percent
Medium fleets:
2017: 8 percent
2018 to 2023: 10 percent
Small fleets:
2019 to 2028: 10 percent

Optional Compliance Schedule for Fleets with 500 Hp or Less – Small fleets with 500 hp or less may comply with the small fleet requirements listed above, or may comply with an optional compliance path which requires the fleet to phase out Tier 0 and Tier 1 vehicles by 2029. This optional compliance schedule is shown in the table below.

Optional Compliance Schedule for Fleets with 500 HP or Less

Compliance Date: January 1 of Year	Percent of Fleet (by horsepower) Which Must Have a Tier 2 or Higher Engine
2019	25
2022	50
2026	75
2029	100

By 2029, all of the fleet's vehicles must have Tier 2 or higher engines. If small fleets with 500 hp or less choose not to pursue this compliance path, they must meet the small fleet requirements above.

Additional Information:

For more information on the Off-Road regulation, including Fact Sheets, Frequently Asked Questions (FAQs), and DOORS User Guides, please visit the Off-Road Knowledge Center at www.arb.ca.gov/msprog/ordiesel/knowcenter.htm

For assistance with Off-Road reporting or using ARB's Diesel Off-Road Online Reporting system (DOORS), please contact the DOORS hotline by phone at (877) 59DOORS (877-593-6677), or by email at doors@arb.ca.gov

For general questions regarding the Off-Road regulation, please contact the Diesel hotline by phone at (866) 6DIESEL (866-634-3735), or by email at 8666diesel@arb.ca.gov

Off-Road regulation homepage: www.arb.ca.gov/ordiesel

Is My Vehicle Covered by the Off-Road Rule?

Was/is the vehicle:
- Manufactured as a single-engine off-road vehicle, OR
- A single-engine workover rig, OR
- A 2-engine crane or 2-engine water-well drilling rig, OR
- A 2-engine privately/commercially owned vehicle with a Tier 1 or later auxiliary engine? (Answer No for 2-engine sweepers)

Yes → Is the vehicle diesel-fueled?

Yes → Is the vehicle self-propelled?

No → **Local permit may be required; ARB PERP optional (arb.ca.gov/portable)**

No → **The LSI Rule may be applicable: (arb.ca.gov/lsi)**

No →
- **Auxiliary engine:** The Portable Engine ATCM may be applicable (arb.ca.gov/portable)
- **Drive engine:** Off-Road Rule (see below) is likely applicable to an off-road engine; Truck and Bus Rule (arb.ca.gov/dieseltruck) is likely applicable to an on-road engine in a privately/commercially owned vehicle; Public Agencies and Utilities Rule www.arb.ca.gov/msprog/publicfleets/publicfleets.htm) is likely applicable to an on-road engine in a publicly owned vehicle.
  NOTE: The Truck & Bus rule applies to both engines of a privately/commercially owned sweeper

Yes → Is the vehicle used for agriculture (farming, forestry, etc.) more than 50% of the time? (see our Fact Sheet at www.arb.ca.gov/msprog/ordiesel/guidance/ag-operations.pdf)

Yes →
- **Used in ag 100%** = exempt
- **Used in ag >50%** = Off-Road Rule is applicable: must report and label but no emissions requirements

No → Does the vehicle operate at a California port or intermodal rail yard?

Yes → **Cargo Handling Equipment Rule is likely applicable (arb.ca.gov/cargo) NOTE: both single-engine and 2-engine off-road mobile cranes (excluding RTG cranes) not operating on steel wheels are covered by the Off-Road Rule, even if operating at a port or intermodal rail yard.**

No → The Off-Road Rule is most likely applicable, and you must comply with reporting, labeling, and fleet average emissions requirements

More Info

It looks like my vehicle is covered by the off-road rule. What do I need to do now?

✓ **Reporting:**
- Reporting can be done through the Diesel Off-Road Online Reporting System (DOORS) at www.arb.ca.gov/ordiesel -- click on the yellow button: "DOORS Reporting Forms"
- Read the "Guide to Reporting Online"
- Vehicles must be reported within 30 days of purchase or coming into California

DOORS Reporting Forms

✓ **Labeling:**
- All vehicles are required to be labeled
- Once you report online, you'll be given an Equipment Identification Number (EIN) for each vehicle
- The EIN must be placed on the vehicle within 30 days
- Visit the Knowledge Center (yellow button on the top of the page above), and click on "Labeling Vehicles"

Knowledge Center Overview, Answers, Fact Sheets

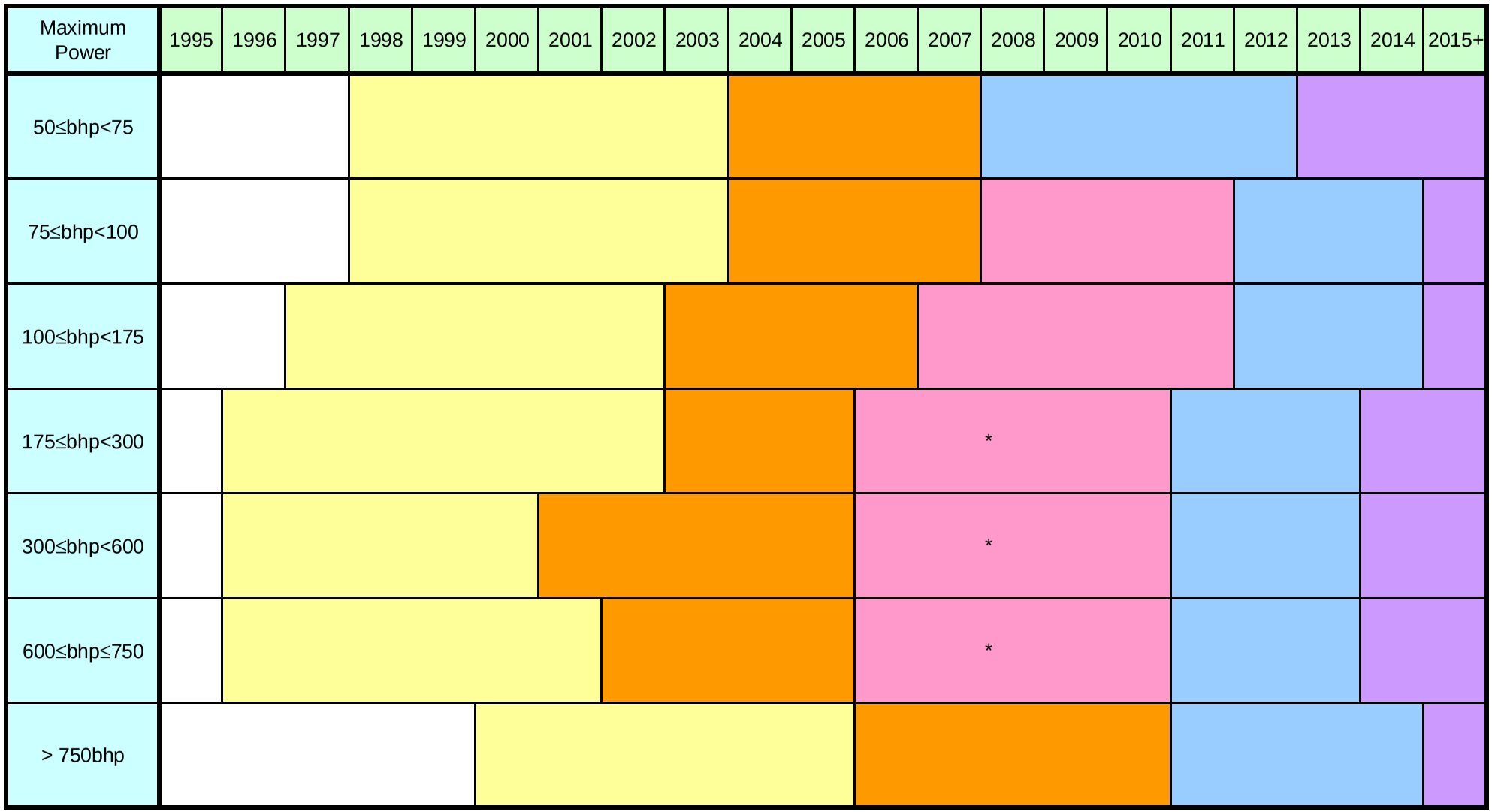
✓ **Idling:**
- 5 minute idling limit
- Medium and large fleets must have a written idling policy
- Visit our Idling Policy Guidance in the Knowledge Center above.

✓ **Disclosure of Applicability:**
- Any person selling an off-road vehicle within California must provide disclosure in writing to the buyer on the bill of sale stating that the vehicle is subject to the Off-Road Regulation. View the advisory regarding disclosure requirements.

This chart is meant to cover most vehicle types. However, applicability may be different for more unique or special vehicles or configurations.

If you have questions or need help, contact us at the Diesel Hotline.

Off-Road Compression-Ignition (Diesel) Engine Tiers



* Certain manufacturers complied with the Tier 3 standards in 2005.

Tier 1 | Tier 2 | Tier 3 | Interim Tier 4 | Tier 4

OVERVIEW OF THE

New Emission Standards, Test Procedures, and Fleet Requirements for Large Spark-Ignition (LSI) Engine Forklifts and Other Industrial Equipment

New rules to achieve significant emission reductions and protect public health

On May 25, 2006, the California Air Resources Board (ARB) amended the existing emission standards and test procedures for off-road large spark-ignition (LSI) engine powered equipment to make them more stringent. The ARB also adopted new regulations requiring emission reductions from existing LSI fleets and prescribing verification procedures for LSI retrofit emission control systems.

Why did the ARB staff propose these regulations?

There are more than 90,000 off-road LSI engines in California. Many of these engines have no emission controls and some remain in operator fleets for decades. Just one uncontrolled engine can emit as much hydrocarbon (HC) and oxides of nitrogen (NOx) in three eight-hour shifts as a new car certified to California's cleanest emission standard does over its entire lifetime. The HC and NOx combine in the atmosphere to form ground level ozone, which can damage the respiratory tract and worsen asthma symptoms. The LSI Regulation will reduce HC+NOx emissions by approximately six tons per day, helping California to meet federally imposed clean air standards. If these standards are not met, the federal government could impose economic sanctions on California; for example, federal highway funding could be withheld.

Who must comply with these regulations?

Manufacturers of 25 horsepower or greater (greater than 19 kilowatts) off-road LSI engines must comply with the new engine standards and test procedures and manufacturers of retrofit emission control systems intended for use on LSI engines must comply with the verification procedures.

Individual persons, businesses, and government agencies that own or operate LSI engine-powered fleets in California are subject to the fleet requirements. Out-of-state companies doing business in California are also subject to the fleet requirements.

What types of vehicles are subject to the regulation?

The new engine emission standards apply to manufacturers of any 25 horsepower or greater off-road LSI engine placed in, but not limited to, airport ground support equipment (GSE), forklifts, generator sets, sweeper/scrubbers, industrial tugs (tow tractors), and turf care equipment. A full list of LSI equipment for which the engine standards apply is available at http://www.arb.ca.gov/msprog/offroad/preempt.htm

The fleet requirements only apply to forklifts, sweepers/scrubbers, industrial tow tractors, and GSE. Those four categories of equipment represent 94 percent of the total HC and NOx emissions from LSI equipment and are often found in fleets. Additionally, zero- and near zero-emission alternatives are available for the four equipment categories.

What does the regulation require?

<u>Engine and Retrofit Emission Control System Manufacturers</u>
The regulation establishes more stringent combined HC and NOx emission certification standards for engine manufacturers. The regulation also establishes verification procedures for manufacturers of retrofit emission control systems. Engine and retrofit emission control system manufacturers will likely employ advanced automotive-style emission control technologies including electronic fuel/air controllers, three-way catalysts, and oxygen sensors to meet the certification and verification standards, respectively.

In-Use Fleets

The regulation also establishes fleet average emission level requirements (fleet average) for medium and large fleets that become more stringent with time. The requirements for forklifts are more stringent than those for non-forklift equipment because the number of lower-emission retrofit kit and electric forklift options are greater. Agricultural fleets are not required to comply with the fleet average, but must address all 1990 and newer uncontrolled forklifts.

When do the requirements take effect?

Requirement	Date
New engine certification standard and associated test procedures	January 1, 2007
Retrofit emission control system verification procedures	May 12, 2007
In-use fleet average requirements (three effective dates)	January 1, 2009; January 1, 2011; January 1, 2013
More stringent new engine certification standard and test procedures	January 1, 2010

What are the estimated benefits of the regulation?

The regulation is expected to reduce HC and NOx emissions by 5.7 tons per day in 2010 and 6.2 tons per day in 2020 – the equivalent of removing 200,000 cars from the road. Several engine manufacturers have introduced engines certified to optional lower emission standards early, so the emission benefits between 2007 and 2010 will be greater than expected, helping us to meet federal clean air standards.

What are the estimated costs?

ARB staff estimates that the total cost of compliance with the regulation for affected businesses will be approximately $8 million. The ARB estimates that the cost effectiveness of the rule making will be no more than $1.40 per pound of HC and NOx reduced. The cost-effectiveness of the rule making compares favorably with other mobile source regulations that are typically in the range of $5 per pound of HC and NOx emissions reduced.

Where can I find more information about the regulation?

The LSI staff report and regulatory text can be accessed from
http://www.arb.ca.gov/regact/lore2006/lore2006.htm

Further information, including other fact sheets, presentations, frequently asked questions, and a list of verified retrofit emission control systems, is available on the LSI regulation website at
http://www.arb.ca.gov/msprog/offroad/orspark/orspark.htm

For additional general information

For general information, please contact ARB's LSI hotline toll-free at (800)387-2992. You may also obtain this document in an alternative format by contacting the ARB at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, Outside Sacramento). TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service.

Portable Diesel Engines

Important Information

1. Fleet emission requirements apply to portable engines registered with Portable Equipment Registration Program or operating under air district permits.

2. Be proactive-Check compliance with fleet emission requirements promptly. This will allow time to adjust your fleet before the **January 1, 2013,** deadline.

3. Fleet emission requirements will become more stringent in January 2017 and 2020. Plan accordingly.

4. Obtain portable diesel engine information at www.arb.ca.gov/portable/portable.htm.

5. If you need help, call (916) 324-5869 or e-mail portable@arb.ca.gov.

(12/6/12)

CALIFORNIA AIR RESOURCES BOARD
P.O. BOX 2038
SACRAMENTO, CA 95812

California Environmental Protection Agency AIR RESOURCES BOARD

Portable Diesel Engines

FLEET 2013

California Environmental Protection Agency
Air Resources Board

New Fleet Emission Requirements Effective January 1, 2013

Portable Diesel Engines *2013 Fleet Requirements*

List of regulation changes and checklist of recordkeeping requirements for portable equipment diesel engines.

Beginning January 1, 2013 portable diesel engines registered in PERP or operating under air district permits must comply with weighted particulate matter (PM) emission fleet averages expressed as grams per brake horsepower-hour (g/bhp-hr). These requirements are part of the Airborne Toxic Control Measure (ATCM) for diesel PM from portable engines. You can have up to three different fleets depending on the size of the engines in your inventory. The ATCM has emission standards for each fleet depending on engine size range. The table below shows the standards effective January 1, 2013.

Engine Size Category in Fleet	50 to less than 175 hp	175 to 750 hp	Greater than 750 hp
Weighted PM Fleet Average	0.3 g/bhp-hr	0.15 g/bhp-hr	0.25 g/bhp-hr

If your fleet average emissions are above the standard YOU must clean up your fleet by using the following options:

1. Replace older, dirtier engines with newer, cleaner engines
2. Replace diesel engines with electric power
3. Install add on controls to engines such as an approved diesel particulate filter (DPF)

How to Determine Compliance?

Determine the weighted PM emissions averages for all the engines within each of the three categories to check if the emissions comply with the applicable standard. This can be done by using ARB's Fleet Calculator (on line or downloadable) or by calculating the weighted PM emissions yourself. You will need engine family name and horsepower of each engine. Refer to your registration or district permit. Other exemptions such as emergency engines, low use engines may apply. Refer to the ATCM.

How to use the ARB Fleet Calculator:

1. Exclude engines below 50 horsepower.
2. Group remaining inventory into three categories based on horsepower in the above table.
3. Use ARB's Fleet Calculator at http://arb.ca.gov/portable/portable2.htm to determine compliance of each fleet.

How to calculate weighted PM fleet average yourself:

1. Look up engine emission factor at http://www.arb.ca.gov/msprog/offroad/cert/cert.php for each engine in fleet.
2. Use the following formula to determine compliance with each fleet standard:

$$\frac{(bhp \times E.F.)_{1st\ engine} + (bhp \times E.F.)_{2nd\ engine} + \ldots (bhp \times E.F.)\ n}{(bhp_{1st\ engine} + bhp_{2nd\ engine} + \ldots\ bhp_{n})}$$

Where: bhp = maximum rated horsepower, E.F. = diesel PM emission rate, and n = the number of engines in the category

Report to ARB by March 1, 2013

What must be reported?

- ☐ Statement of compliance by responsible official
- ☐ Summary of each engine in fleet with the emission rate
- ☐ Engine make, model, serial # and year
- ☐ Low use and emergency engines
- ☐ PERP registration number or district permit numbers