

This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

# Fleet Rule Implementation Charts For Use With The 2017 Moyer Program Guidelines

Revised 02/08/2018

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## I. Introduction

The information provided in this document is for informational purposes only. The California Air Resources Board (CARB) and local air quality management or air pollution control districts (air districts) will make eligibility determinations for Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program) projects based on applicable statutory, guideline, and mobile source mail out language, all of which are available at <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

This document describes possible funding options for vehicles and equipment subject to ARB in-use fleet rules. Pollutants claimed and timing of the project directly impact project eligibility.

This document includes charts for most potential project types that may be used by CARB and air districts to ensure that emission reductions are surplus as required by the Guidelines. Instructions for reading these charts are below. These charts have been developed specifically for each applicable source category. The format and content of the charts varies for each source category due to differences in regulatory requirements and Moyer Program eligibility requirements.

Note that not all rules and regulations, nor all compliance options within a given rule or regulation, require the use of implementation charts to aid in determining available surplus. Some rules and regulations have already reached their final compliance requirements while others impose limitations such as reduced annual usage instead of specific compliance dates. For vehicles subject to the following rules and regulations, or for vehicles complying with a rule or regulation via the following compliance options, please refer to the relevant source category chapter within the Moyer Program Guidelines:

- Vehicles complying with the Statewide Truck & Bus Regulation via the Low-Use Vehicle Exemption: There is no retrofit or upgrade requirement for vehicles using the low-use exemption, but funding will be limited by the annual usage limits.
- School buses: School buses are required to be equipped with diesel particulate filters (DPF's), but since there are no further regulatory requirements the project life is limited only by the requirements of the Moyer Program Guidelines.
- Vehicles subject to the Fleet Rule for Transit Agencies: Urban buses subject to this rule must meet the requirements of Title 13, California Code of Regulations (CCR), sections 2023 and 2023.1, and other transit fleet vehicles subject to this rule must have already met the requirements of Title 13, CCR, sections 2023 and 2023.2. Since there are no further regulatory requirements for these vehicles the project life is limited only by the requirements of the Moyer Program Guidelines. Replacement engines must be certified to NO<sub>x</sub> emission levels of 0.10 grams per brake horsepower-hour (g/bhp-hr) or cleaner.

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- Equipment subject to the Large Spark-Ignition Engine Fleet Requirements Regulation: Equipment subject to this rule must meet the final requirements of the rule. Since there are no further regulatory requirements for these pieces of equipment the project life is limited only by the requirements of the Moyer Program Guidelines.
- Equipment subject to the Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards: Equipment subject to this rule must meet the final requirements of the rule. Since there are no further regulatory requirements for these pieces of equipment the project life is limited only by the requirements of the Moyer Program Guidelines.
- Equipment subject to the Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines: Equipment subject to this rule must meet the final requirements of the rule. Since there are no further regulatory requirements for these pieces of equipment the project life is limited only by the requirements of the Moyer Program Guidelines.
- Equipment subject to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines: Equipment subject to this rule must meet the final requirements of the rule. Since there are no further regulatory requirements for these pieces of equipment the project life is limited only by the requirements of the Moyer Program Guidelines.

## II. Instructions

The charts provided in this document may be used to aid in determining eligibility for projects claiming surplus oxides of Nitrogen (NOx), reactive organic gases (ROG) and/or particulate matter (PM) emission reductions from vehicles or equipment subject to CARB fleet rules. There must be a number of full years prior to the compliance deadline at least equal to the minimum project life, as determined by the project category. A thick border between years denotes the compliance deadline. The maximum project life is equal to the lesser of the number of full years prior to the compliance deadline or the maximum project life for that project category.

### Implementation Chart Key

	Project is potentially eligible for funding in this year
	Project not eligible; minimum project life requirement not met
—	Compliance deadline
Number in Cell	# of years prior to compliance deadline (limits project life)

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### III. Example Scenarios

#### A. Example: On-Road Limited Mileage Funding Option

If an applicant is opted into the agricultural vehicle extension, then their annual activity is limited to the mileage given in the chart below:

**Agricultural Vehicle Extension Mileage Thresholds**

	Annual Mileage Limits		
Calendar Year →	2011-2016	2017-2019	2020-2022
Engine Year ↓			
2006 or newer	25,000 miles	15,000 miles	10,000 miles
1996 - 2005	20,000 miles	15,000 miles	10,000 miles
1995 and older	15,000 miles	15,000 miles	10,000 miles

If an applicant is applying for funding, eligibility is determined as follows:

**Implementation Chart for Agricultural Vehicles  
NOx, ROG, and PM Eligibility**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Year for funding ↓							
All	5	4	3	2	1		

Interpreting the implementation chart: The final compliance deadline is at the end of 2022 as shown by the thick border between calendar years 2022 and 2023. Projects are not eligible in 2022 because there are not enough years remaining prior to the compliance deadline to meet the minimum project life requirements of the on-road heavy-duty category, as shown by the light grey cell. Projects are eligible from 2017 to 2021 with an amount of years prior to the compliance deadline indicated by the number in each cell, as shown by the green cells. For example, projects installed and in operation within calendar year 2019 cannot exceed an annual usage of 15,000 miles, may have a baseline engine of any model year, and will have three full years remaining prior to the compliance deadline, and so are eligible for a project life of up to three years.

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**B. Example: Equipment subject to In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation)**

A company has a total fleet horsepower of 6,551 and meets the definition of large fleet in the Off-Road Regulation. The equipment will be in operation before January 1, 2018, thus the project is eligible for a project life of three to five years depending on the amount of horsepower funded (between 21.2 and 41.2 percent of the fleet horsepower). Since the replacement equipment is less than 21.2 percent of the total fleet’s horsepower, the project is eligible for up to the maximum five-year project life, as requested by the applicant. In the future, this fleet will only be eligible for zero-emission projects as long as surplus to the Off-Road Regulation.

**Implementation Chart for Large Fleets**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023
BACT percent to be eligible for funding →	28.8	38.8	48.8	Fleet must meet final compliance requirements			
Percent of fleet horsepower eligible for funding ↓							
71.2							
61.2							
51.2							
41.2	3						
31.2	4	3					
21.2	5	4	3				
11.2	6	5	4				
1.2	7	6	5				

Interpreting the implementation chart: Since the replacement equipment will be in operation in 2017, the fleet must meet its current fleet average requirements or have met its BACT requirement (28.8 percent of fleet horsepower). Reading down the calendar year 2017 column to the 5-year project life cell and reading to the left, a maximum of 21.2 percent of fleet horsepower is eligible for funding. The project life is represented by the 5-years (cells) to the right prior to the heavy line representing the final compliance date. Funded equipment cannot count towards compliance requirements while under contract.

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#### IV. On-Road Heavy-Duty Vehicles

##### A. Vehicles Subject to the Statewide Truck & Bus Regulation

This regulation (Title 13, CCR § 2025) only affects diesel vehicles with a gross vehicle weight rating (GVWR) over 14,000 pounds (lbs). Regulatory information can be found at <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. The minimum project life is one year. Projects involving engines cleaner than the 2010 emission standard may be eligible for a project life up to 7 years.

##### 1. Engine Model Year Schedule: Lighter Trucks and Buses (GVWR 26,000 lbs or less)

###### PM and NOx Regulatory Requirements (Title 13, CCR § 2025 (f)(1))

Engine Model Years	Compliance Date for 2010 or newer engine
1995 & older	January 1, 2015
1996	January 1, 2016
1997	January 1, 2017
1998	January 1, 2018
1999	January 1, 2019
2000 - 2003	January 1, 2020
2004 - 2006	January 1, 2021
2007 - 2009	January 1, 2023

Vehicles filtered prior to 2014 and meet PM BACT according to the Truck and Bus Regulation, have a January 1, 2023 compliance date and have the same years of surplus as 2007-2009 model year engines in the implementation charts.

##### Implementation Chart for Lighter Trucks and Buses Following the Engine Model Year Schedule

###### NOx, ROG, and PM Eligibility (for 2010 Std. Replacement Engines)

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1997 & older	1998 & older	1999 & older	2003 & older	2006 & older	2009 & older	2009 & older
Engine Model Year for funding ↓							
1999	1						
2000 - 2003	2	1					
2004 - 2006	3	2	1				
2007 - 2009	5	4	3	2	1		

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**2. Engine Model Year Schedule: Heavier Trucks and Buses (GVWR Greater Than 26,000 lbs)**

**PM Regulatory Requirements (Title 13, CCR § 2025 (g)(1))**

Engine Model Years	Compliance Dates for DPF installation
1993 & older	none
1994 - 1995	none
1996 - 1999	January 1, 2012
2000 - 2004	January 1, 2013
2005 - 2006	January 1, 2014
2007 - 2009	January 1, 2014 if not originally equipped
2010+	Meets final requirement

**NOx Regulatory Requirements (Title 13, CCR § 2025 (g)(1))**

Engine Model Years	Compliance Dates for 2010 or newer engine
1993 & older	January 1, 2015
1994 - 1995	January 1, 2016
1996 - 1999	January 1, 2020
2000 - 2004	January 1, 2021
2005 - 2006	January 1, 2022
2007 - 2009	January 1, 2023
2010+	Meets final requirement

All trucks have been filtered since at least 2014.

If the truck is retrofitted with a verified filter that meets PM BACT according to the Truck and Bus Regulation, some PM reductions may still be eligible. Vehicles filtered prior to 2014 have a January 1, 2023 compliance date and have the same number of years of surplus as 2007-2009 model year engines in the implementation charts.

**Implementation Chart for Heavier Trucks and Buses Following the Engine Model Year Schedule**

**NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1995 & older	1995 & older	1995 & older	1999 & older	2004 & older	2006 & older	2009 & older
Engine Model Year for funding ↓							
1996 - 1999	2	1					
2000 - 2004	3	2	1				
2005 - 2006	4	3	2	1			
2007 - 2009	5	4	3	2	1		



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### 3. Filter Phase-In Option

The filter phase-in option is only for heavy vehicles, and the deadline to opt into this option has passed. Only fleets already taking advantage of the filter phase-in option may continue to use it.

**PM Regulatory Requirements (Title 13, CCR § 2025 (i)(1)):** Most vehicles had to be filtered following a phase-in schedule by engine model year whose last deadline was 1/1/2016. Some downsizing and early retrofit credits extended that deadline up to 1/1/2018.

**NOx Regulatory Requirements (Title 13, CCR § 2025 (g)(1)):** Must begin to follow the Statewide Truck & Bus regulation’s Regular Engine Model Year Schedule for Heavy Trucks and Buses on 1/1/2020.

If the truck is retrofitted with a verified filter that meets PM BACT according to the Truck and Bus Regulation, some PM reductions may still be eligible. Vehicles filtered prior to 2014 have a January 1, 2023 compliance date and have the same number of years of surplus as 2007-2009 model year engines in the implementation charts.

**Implementation Chart for Retrofitted and OEM Filtered Vehicles in the Filter Phase-in Option  
NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1995 & older	1995 & older	1995 & older	1999 & older	2004 & older	2006 & older	2009 & older
Engine Model Year for funding ↓							
1996 - 1999	2	1					
2000 - 2004	3	2	1				
2005 - 2006	4	3	2	1			
2007 - 2009	5	4	3	2	1		

### 4. Agricultural Vehicle Extension

Vehicles that opted into this extension before it closed in 2015 do not have to comply with the Regular Engine Model Year Schedule for either lighter or heavier trucks and buses until 2023. However, their annual mileage must be limited in accordance with the table below based on the current calendar year and their engine model year. Vehicles reported under mileage-limited compliance options such as this will be funded no more than the mileage limits of the compliance option and must provide mileage documentation.

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**Regulatory Requirements (Title 13, CCR §2025 (m)(1))**

Calendar Year →	Annual Mileage Limits		
	2011-2016	2017-2019	2020-2022
Engine Model Year ↓			
2006 or newer	25,000 miles	15,000 miles	10,000 miles
1996 - 2005	20,000 miles	15,000 miles	10,000 miles
1995 and older	15,000 miles	15,000 miles	10,000 miles

**Implementation Chart for Agricultural Vehicles**

**NOx, ROG, and PM Eligibility**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Year for funding ↓							
All	5	4	3	2	1		

**5. Low-Mileage Work Truck Option**

The low-mileage work truck option limits the annual usage of work trucks to 20,000 miles, and the opt-in period for this option has passed. Only fleets already taking advantage of this option may continue to use it.

**PM Regulatory Requirements, Title 13, CCR § 2025(p)(2) (Light Vehicles and Heavy Vehicles Calculated Separately)**

**PM Regulatory Requirements**

Percentage of fleet that must have DPF's	Compliance Date
33	January 1, 2014
40	January 1, 2015
60	January 1, 2016
80	January 1, 2017
100	January 1, 2018

**NOx Regulatory Requirements, Title 13, CCR §2025 (p)(2)**

For the part of the fleet that is light, the 2010 standard NOx requirements are the same as those of the Regular Engine Model Year Schedule for Light Trucks and Buses but not beginning until 1/1/2020.

**NOx Regulatory Requirements for Lighter Low-Mileage Work Trucks**

Engine Model Years	Compliance Date for 2010 or newer engine
2003 & older	January 1, 2020
2004 - 2006	January 1, 2021
2007 - 2009	January 1, 2023

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For the part of the fleet that is heavy, the 2010 standard NOx requirements are the same as the Regular Engine Model Year Schedule for Heavy Trucks and Buses beginning on 1/1/2020.

**NOx Regulatory Requirements for Heavier Low-Mileage Work Trucks**

Engine Model Years	Compliance Date for 2010 or newer engine
1999 & older	January 1, 2020
2000 - 2004	January 1, 2021
2005 - 2006	January 1, 2022
2007 - 2009	January 1, 2023
2010+	Meets final requirement

For the part of the fleet that is light, the requirements are the same as the Regular Engine Model Year Schedule for lighter trucks and buses, except only NOx and ROG emission reductions are funded, and no engine upgrade is required until 1/1/2020. If no action is taken before 1/1/2020, then on 1/1/2020, engine model years 2003 and older go out of compliance. Engine model years 2004-2006 have less than one full year of surplus so are not eligible for funding. Engine model years 2007-2009 have two years of surplus, but only one year of surplus beginning on 1/1/2021.

**Implementation Chart for Lighter Trucks and Buses  
NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1997 & older	1998 & older	1999 & older	2003 & older	2006 & older	2009 & older	2009 & older
Engine Model Year for funding ↓							
1999 & older	1						
2000 - 2003	2	1					
2004 - 2006	3	2	1				
2007 - 2009	5	4	3	2	1		

For the part of the fleet that is heavy, the requirements are the same as the Regular Engine Model Year Schedule for Heavy Trucks and Buses except no engine upgrade is required until 1/1/2020.

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**Implementation Chart for Heavier Trucks and Buses  
NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1995 & older	1995 & older	1995 & older	1999 & older	2004 & older	2006 & older	2009 & older
Engine Model Year for funding ↓							
1996 - 1999	2	1					
2000 - 2004	3	2	1				
2005 - 2006	4	3	2	1			
2007 - 2009	5	4	3	2	1		

**6. NOx Exempt Area Extension**

**PM Regulatory Requirements (Title 13, CCR § 2025 (p))**

Percentage of fleet that must have DPF's	Compliance Date
25	January 1, 2015
40	January 1, 2016
55	January 1, 2017
70	January 1, 2018
85	January 1, 2019
100	January 1, 2020

There is one year of surplus for the 15 percent of the fleet not required to be equipped with a DPF until 1/1/2019, and 2 years of surplus for the 30 percent of the fleet not required to be equipped with a DPF until 1/1/2020. However, by the requirements in Ch. 4: On-Road Heavy Duty Vehicles, the retrofit must also be certified or verified by CARB to reduce NOx by at least 15 percent and reduce emissions to the 0.02 g/bhp-hr optional low NOx standard or cleaner, and are only eligible on a case-by-case basis.

**Implementation Chart for NOx-Exempt Vehicles  
PM Eligibility**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
percent of fleet that is filtered ↓							
70							
85	1						
100	2	1					

As long as the fleet is in compliance with the NOx Exempt Area extension's PM requirements, surplus is unlimited and the project life can be up to seven years.

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**NOx regulatory requirements (Title 13, CCR § 2025 (p)):** There are no NOx regulatory requirements as long as a vehicle remains inside of the NOx-exempt area. If an owner wishes for their vehicle to exit the area then the engine must be upgraded to 2010 or newer emission standards in accordance with the Engine Model Year Schedule.

**7. Log Truck Phase-In Option**

**PM and NOx Regulatory Requirements (Title 13, CCR § 2025 (m))**

Percentage of the fleet that must comply	Compliance Date for 2010 or newer engine
10	January 1, 2014
20	January 1, 2015
30	January 1, 2016
40	January 1, 2017
50	January 1, 2018
60	January 1, 2019
70	January 1, 2020
80	January 1, 2021
90	January 1, 2022
100	January 1, 2023

**Implementation Chart for the Log Truck Phase-In Option  
NOx, ROG, and PM Eligibility**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
percent of fleet upgraded to 2010 or newer engine ↓							
50							
60	1						
70	2	1					
80	3	2	1				
90	4	3	2	1			
100	5	4	3	2	1		

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## 8. Small Fleet Option

### PM Regulatory Requirements (Title 13, CCR § 2025 (h))

# Vehicles in Fleet	Compliance Date
1	July 1, 2014
2	January 1, 2017
3	January 1, 2018

Note that the NOx regulatory requirements for small fleets are the same as those of the Regular Engine Model Year Schedule for Heavy Trucks and Buses, beginning on 1/1/2020.

### NOx Regulatory Requirements (Title 13, CCR § 2025 (h))

Engine Model Years	Compliance Date for 2010 or newer engine
1999 & older	January 1, 2020
2000 - 2004	January 1, 2021
2005 - 2006	January 1, 2022
2007 - 2009	January 1, 2023
2010+	Meets final requirement

The requirements are the same as the Regular Engine Model Year Schedule for Heavy Trucks and Buses except that no 2010 engine upgrade is required until 1/1/2020. Trucks that are filtered prior to 1/1/2014 and remain in fleet have an extension to meet 2010 standards by 1/1/2023.

### Implementation Chart for Small Fleets NOx and ROG Eligibility Only

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →	1995 & older	1995 & older	1995 & older	1999 & older	2004 & older	2006 & older	2009 & older
Engine Model Year for funding ↓							
1999 & Older	2	1					
2000 - 2004	3	2	1				
2005 - 2006	4	3	2	1			
2007 - 2009	5	4	3	2	1		

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**B. Vehicles Subject to the Statewide Solid Waste Collection Vehicle Rule**

The replacement engines for solid waste collection vehicles must be certified to NOx emission levels of 0.10 g/bhp-hr or cleaner. If a solid waste collection vehicle’s engine model year is 2006 or older, it is subject to the Statewide Solid Waste Collection Vehicle rule (Title 13, CCR § 2020, 2021, 2021.1, 2021.2) which required DPF installation over a phase-in that ended in 2010. Once equipped with a DPF, there are no further regulatory requirements. Project life is limited by the requirements in Ch. 4: On-Road Heavy Duty Vehicles. Only NOx and ROG emission reductions can be funded. If the replacement is zero-emission, PM emission reductions may also be included.

If a solid waste collection vehicle’s engine model year is 2007 or newer, it is subject to the Statewide Truck & Bus regulation beginning on 1/1/2023. This requires an upgrade to 2010 or newer engine model year standards by 1/1/2023. More Moyer Program funding is available potentially if the engine is upgraded earlier.

**Implementation Chart for Solid Waste Collection Vehicles  
NOx and ROG Eligibility for 2007-2009 Engine Model Years (Portion of Surplus to the 2010 Std to be Used in 1<sup>st</sup> Step of Two-Step Calculation)**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Year for funding ↓							
2007 - 2009	5	4	3	2	1		

**C. Vehicles Subject to the Statewide Drayage Truck Regulation**

Drayage trucks are subject to the Statewide Drayage Truck Regulation (Title 13, CCR § 2025(l)(1) through (3)). They were required to have a 2007 or newer engine by 1/1/2014. 2006 or older engine model years are out of compliance. 2007-2009 engine model years must upgrade to 2010 engine emission standards by 1/1/2023. More Moyer funding is available the earlier the engine upgrade. No Moyer funding is available after 12/31/2021 for projects funding 2010 standard engines. Engines certified to cleaner emission standards will continue to be eligible for funding with a seven-year maximum project life.

**Implementation Chart for Drayage Trucks  
NOx and ROG Eligibility**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Year for funding ↓							
2007 - 2009	5	4	3	2	1		

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**D. Vehicles Subject to the Fleet Rule for Public Agencies and Utilities**

Vehicles subject to the Fleet Rule for Public Agencies and Utilities (Title 13, CCR § 2022 and 2022.1) are required to be equipped with DPF's as of 1/1/2018. Private utilities become subject to the Truck and Bus Regulation starting January 1, 2021. Since there are no further regulatory requirements for vehicles other than private utilities, the project life for those vehicles is limited only by the requirements of the Moyer Program Guidelines. The eligible surplus and project life for lighter and heavier private utility vehicles can be seen in the implementation chart below. Some filtered vehicles may be able to include PM reductions in surplus calculations.

**Implementation Chart for Lighter Private Utility Vehicles  
NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →					2006 & older	2009 & older	2009 & older
Engine Model Year for funding ↓							
2006 & Older	3	2	1				
2007 - 2009	5	4	3	2	1		

**Implementation Chart for Heavier Private Utility Vehicles  
NOx and ROG Eligibility Only**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023+
Engine Model Years out of compliance →					2004 & older	2006 & older	2009 & older
Engine Model Year for funding ↓							
2004 & Older	3	2	1				
2005 - 2006	4	3	2	1			
2007 - 2009	5	4	3	2	1		

**V. Projects Subject to the In-Use Off-Road Diesel-Fueled Fleets Regulation**

The In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) (CCR, Title 13, section 2449 et. seq.) is applicable to any person, business, or government agency that owns or operates within California any diesel-fueled or alternative-diesel fueled off-road compression ignition engine 25 horsepower or greater. Fleets must meet the fleet average requirements before January 1 of each year or demonstrate that they meet the Best Available Control Technology (BACT) requirements.



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**A. Large Fleets**

**Large Fleet Regulatory Requirements**

Annual Percentage of Total Horsepower in Fleet to Use BACT	Cumulative Percentage of Total Horsepower in Fleet to Use BACT	Compliance Deadline
4.8	4.8	January 1, 2014
8	12.8	January 1, 2015
8	20.8	January 1, 2016
8	28.8	January 1, 2017
10	38.8	January 1, 2018
10	48.8	January 1, 2019
10	58.8	January 1, 2020
10	68.8	January 1, 2021
10	78.8	January 1, 2022
10	88.8	January 1, 2023

- Large fleets have a three-year minimum project life.
- Large fleets are eligible for funding once after January 1, 2017 to retrofit, repower, or replace diesel equipment so long as emission reductions are surplus to the Off-Road Regulation.
- Large fleets are eligible for funding additional times after January 1, 2017 to repower or replace diesel equipment with zero-emission equipment so long as the emission reductions are surplus to the Off-Road Regulation.
- Funding opportunities remain for large fleets through December 31, 2019, after which funding is only available for fleets that show compliance with the final regulatory compliance requirements.
- The amount of horsepower eligible for funding depends upon the fleet's compliance relative to the BACT requirements.

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### Implementation Chart for Large Fleets

Calendar Year →	2017	2018	2019	2020	2021	2022	2023
BACT percent to be eligible for funding →	28.8	38.8	48.8	Fleet must meet final compliance requirements			
Percent of fleet horsepower eligible for funding ↓							
71.2							
61.2							
51.2							
41.2	3						
31.2	4	3					
21.2	5	4	3				
11.2	6	5	4				
1.2	7	6	5				

- Prior to 1/1/2018, fleet must show compliance with the 2017 requirements (28.8 percent of hp), and Moyer can fund up to 41.2 percent of hp with a three-year project life.
- Prior to 1/1/2019, fleet must show compliance with the 2018 requirements (38.8 percent of hp), and Moyer can fund up to 31.2 percent of hp with a three-year project life.
- Prior to 1/1/2020, fleet must show compliance with the 2019 requirements (48.8 percent of hp), and Moyer can fund up to 21.2 percent of hp with a three-year project life.
- If the projects are installed and in operation any time after 1/1/2020 then they are not eligible for funding unless the fleet meets the final compliance requirements.

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**B. Medium Fleets**

**Medium Fleet Regulatory Requirements**

Annual Percentage of Total Horsepower in Fleet to Use BACT	Cumulative Percentage of Total Horsepower in Fleet to Use BACT	Compliance Deadline
8	8	January 1, 2017
10	18	January 1, 2018
10	28	January 1, 2019
10	38	January 1, 2020
10	48	January 1, 2021
10	58	January 1, 2022
10	68	January 1, 2023

- Medium fleets have a minimum three-year project life.
- Funding opportunities remain for medium fleets through December 31, 2019, after which funding is only available for fleets that show compliance with the final regulatory compliance requirements.
- The amount of horsepower eligible for funding depends upon the fleet's compliance relative to the BACT requirements.

This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

### Implementation Chart for Medium Fleets

Calendar Year →	2017	2018	2019	2020	2021	2022	2023
BACT percent to be eligible for funding →	8	18	28	Fleet must meet final compliance requirements			
Percent of fleet horsepower eligible for funding ↓							
92							
82							
72							
62	3						
52	4	3					
42	5	4	3				
32	6	5	4				
22	7	6	5				
12	8	7	6				
2	9	8	7				

- Prior to 1/1/2018, the fleet must show compliance with the 2017 requirements (8 percent of hp), and Moyer can fund up to 62 percent of hp with a three-year project life.
- Prior to 1/1/2019, the fleet must show compliance with the 2018 requirements (18 percent of hp), and Moyer can fund up to 52 percent of hp with a three-year project life.
- Prior to 1/1/2020, the fleet must show compliance with the 2019 requirements (28 percent of hp), and Moyer can fund up to 42 percent of hp with a three-year project life.
- If the projects are installed and in operation any time after 1/1/2020 then they are not eligible for funding unless the fleet meets the final compliance requirements.

This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

**C. Small Fleets**

**Small Fleet Regulatory Requirements**

Annual Percentage of Total Horsepower in Fleet to Use BACT	Cumulative Percentage of Total Horsepower in Fleet to Use BACT	Compliance Deadline
10	10	January 1, 2019
10	20	January 1, 2020
10	30	January 1, 2021
10	40	January 1, 2022
10	50	January 1, 2023
10	60	January 1, 2024
10	70	January 1, 2025
10	80	January 1, 2026
10	90	January 1, 2027
10	100	January 1, 2028

- Small fleets have a minimum two-year project life.
- Funding opportunities remain for small fleets through December 31, 2025, after which funding is only available for fleets that show compliance with the final regulatory compliance requirements.
- The amount of horsepower eligible for funding depends upon the fleet's compliance relative to the BACT requirements.
- Other surplus opportunities exist for small fleets.

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**Implementation Chart for Small Fleets**

Calendar Year →	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
BACT percent to be eligible for funding →	0	0	10	20	30	40	50	60	70	Fleet must meet final compliance requirements		
Percent of horsepower eligible for funding ↓												
90	2											
80	3	2										
70	4	3	2									
60	5	4	3	2								
50	6	5	4	3	2							
40	7	6	5	4	3	2						
30	8	7	6	5	4	3	2					
20	9	8	7	6	5	4	3	2				
10	10	9	8	7	6	5	4	3	2			

- Prior to 1/1/2018, fleet does not need to show compliance, and Moyer can fund up to 90 percent of hp.
- Prior to 1/1/2019, fleet does not need to show compliance, and Moyer can fund up to 80 percent of hp.
- Prior to 1/1/2020, fleet must show compliance with 2019 requirements (10 percent of hp) and Moyer can fund up to 70 percent of hp.
- Prior to 1/1/2021, fleet must show compliance with 2020 requirements (20 percent of hp) and Moyer can fund up to 60 percent of hp.
- Prior to 1/1/2022, fleet must show compliance with 2021 requirements (30 percent of hp) and Moyer can fund up to 50 percent of hp.
- Prior to 1/1/2023, fleet must show compliance with 2022 requirements (40 percent of hp) and Moyer can fund up to 40 percent of hp.
- Prior to 1/1/2024, fleet must show compliance with 2023 requirements (50 percent of hp) and Moyer can fund up to 30 percent of hp.
- Prior to 1/1/2025, fleet must show compliance with 2024 requirements (60 percent of hp) and Moyer can fund for to 20 percent of hp.
- Prior to 1/1/2026, fleet must show compliance with 2025 requirements (70 percent of hp) and Moyer can fund for to 10 percent of hp.
- If the projects are installed and in operation any time after 1/1/2026 then they are not eligible for funding unless the fleet meets the final compliance requirements.

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## VI. Marine Vessels

### A. Vessels Subject to the Commercial Harbor Craft Regulation

The Commercial Harbor Craft Regulation (Title 13, CCR § 2299.5) is applicable to any person who sells, supplies, offers for sale, purchases, owns, operates, leases, charters, or rents any new or in-use diesel-fueled harbor craft that is operated in any of the Regulated California Waters. The rule requires reporting to ARB starting February 28, 2009 for all persons with a commercial harbor craft under their direct control.

#### 1. Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Outside SCAQMD (with Pre-Tier 1 and Tier 1 Engines)

Vessel Owners must replace the vessel's engine (or implement an approved alternate compliance plan) per section 93118.5(e)(6)(c), title 17, California Code of Regulations before the dates shown below.

#### Regulatory Requirements for Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Outside SCAQMD

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1975 and earlier	≥ 1500	December 31, 2009
1975 and earlier	≥ 300 and < 1500	December 31, 2010
1976 - 1985	≥ 1500	December 31, 2011
1976 - 1985	≥ 300 and < 1500	December 31, 2012
1986 - 1995	≥ 1500	December 31, 2013
1986 - 1995	≥ 300 and < 1500	December 31, 2014
1996 - 1999 (ferries only)	≥ 300	December 31, 2014
1996 - 1999 (non-ferries)	≥ 1500	December 31, 2015
1996 - 1999 (non-ferries)	≥ 300 and < 1500	December 31, 2016
2000	≥ 1500	December 31, 2015
2000	≥ 300 and < 1500	December 31, 2016
2001 - 2002	≥ 300	December 31, 2017
2003	≥ 300	December 31, 2018
2004	≥ 300	December 31, 2019
2005	≥ 300	December 31, 2020
2006	≥ 300	December 31, 2021
2007	≥ 300	December 31, 2022

This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

**Implementation Chart for Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Outside SCAQMD**

Calendar Year →		2017	2018	2019	2020	2021	2022	2023+
Engine Model Year ↓	Total Annual Hours of Operation ↓							
1975 and earlier	≥ 1500							
1975 and earlier	≥ 300 and < 1500							
1976 - 1985	≥ 1500							
1976 - 1985	≥ 300 and < 1500							
1986 - 1995	≥ 1500							
1986 - 1995	≥ 300 and < 1500							
1996 - 1999 (ferries only)	≥ 300							
1996 - 1999 (non-ferries)	≥ 1500							
1996 - 1999 (non-ferries)	≥ 300 and < 1500							
2000	≥ 1500							
2000	≥ 300 and < 1500							
2001 - 2002	≥ 300							
2003	≥ 300							
2004	≥ 300							
2005	≥ 300	3						
2006	≥ 300	4	3					
2007	≥ 300	5	4	3				

**2. Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Inside SCAQMD (with Pre-Tier 1 and Tier 1 Engines)**

Vessel Owners must replace the vessel’s engine (or implement an approved alternate compliance plan) per section 93118.5(e)(6)(c), title 17, California Code of Regulations before the dates shown below.



This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

**Regulatory Requirements for Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Inside SCAQMD**

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1979 and earlier	≥ 300	December 31, 2009
1980 - 1985	≥ 300	December 31, 2010
1986 - 1990	≥ 300	December 31, 2011
1991 - 1995	≥ 300	December 31, 2012
1996 - 2000	≥ 300	December 31, 2013
2001	≥ 300	December 31, 2014
2002	≥ 300	December 31, 2015
2003	≥ 300	December 31, 2016
2004	≥ 300	December 31, 2017
2005	≥ 300	December 31, 2018
2006	≥ 300	December 31, 2019
2007	≥ 300	December 31, 2020

**Implementation Chart for Ferries, Excursion Vessels, Tugboats, Towboats, and Push Boats with Homeports Inside SCAQMD**

Calendar Year →		2017	2018	2019	2020	2021	2022	2023+
Engine Model Year ↓	Total Annual Hours of Operation ↓							
1979 and earlier	≥ 300							
1980 - 1985	≥ 300							
1986 - 1990	≥ 300							
1991 - 1995	≥ 300							
1996 - 2000	≥ 300							
2001	≥ 300							
2002	≥ 300							
2003	≥ 300							
2004	≥ 300							
2005	≥ 300							
2006	≥ 300							
2007	≥ 300	3						

**3. Crew and Supply Vessels Statewide (with pre-Tier 1 and Tier 1 engines)**

Vessel Owners must replace the vessel's engine (or implement an approved alternate compliance plan) per section 93118.5(e)(6)(c), title 17, California Code of Regulations before the dates shown below.

This document is for informational purposes only, and does not replace or supersede the Moyer Program Guidelines. CARB and the air districts determine project eligibility.

**Regulatory Requirements for Crew and Supply Vessels Statewide**

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1985 and earlier	≥ 1500	December 31, 2011
1985 and earlier	≥ 300 and < 1500	December 31, 2012
1986 - 1995	≥ 1500	December 31, 2013
1986 - 1995	≥ 300 and < 1500	December 31, 2014
1996 - 2000	≥ 1500	December 31, 2015
1996 - 2000	≥ 300 and < 1500	December 31, 2016
2001 - 2002	≥ 300	December 31, 2017
2003	≥ 300	December 31, 2018
2004	≥ 300	December 31, 2019
2005	≥ 300	December 31, 2020
2006	≥ 300	December 31, 2021
2007	≥ 300	December 31, 2022

**Implementation Chart for Crew and Supply Vessels Statewide**

Calendar Year →		2017	2018	2019	2020	2021	2022	2023+
Engine Model Year ↓	Total Annual Hours of Operation ↓							
1985 and earlier	≥ 1500							
1985 and earlier	≥ 300 and < 1500							
1986 - 1995	≥ 1500							
1986 - 1995	≥ 300 and < 1500							
1996 - 2000	≥ 1500							
1996 - 2000	≥ 300 and < 1500							
2001 - 2002	≥ 300							
2003	≥ 300							
2004	≥ 300							
2005	≥ 300	3						
2006	≥ 300	4	3					
2007	≥ 300	5	4	3				

**4. Dredges and Barges Statewide (with pre-Tier 1 and Tier 1 engines)**

Vessel Owners must replace the vessel's engine (or implement an approved alternate compliance plan) per section 93118.5(e)(6)(c), title 17, California Code of Regulations before the dates shown below.

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**Regulatory Requirements for Dredges and Barges Statewide**

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1975 and earlier	≥ 80	December 31, 2011
1976 - 1980	≥ 80	December 31, 2012
1981 - 1985	≥ 80	December 31, 2013
1986 - 1990	≥ 80	December 31, 2014
1991 - 1995	≥ 80	December 31, 2015
1996 - 1999	≥ 80	December 31, 2016
2000 - 2001	≥ 80	December 31, 2017
2002	≥ 80	December 31, 2018
2003	≥ 80	December 31, 2019
2004	≥ 80	December 31, 2020
2005	≥ 80	December 31, 2021
2006	≥ 80	December 31, 2022

**Implementation Chart for Dredges and Barges Statewide**

Calendar Year →		2017	2018	2019	2020	2021	2022	2023+
Engine Model Year ↓	Total Annual Hours of Operation ↓							
1975 and earlier	≥ 80							
1976 - 1980	≥ 80							
1981 - 1985	≥ 80							
1986 - 1990	≥ 80							
1991 - 1995	≥ 80							
1996 - 1999	≥ 80							
2000 - 2001	≥ 80							
2002	≥ 80							
2003	≥ 80							
2004	≥ 80	3						
2005	≥ 80	4	3					
2006	≥ 80	5	4	3				

**B. Shore Power Projects Subject to the At-Berth Regulation**

The At-Berth Regulation (Title 17, CCR § 93118.3(c)) is applicable to any person who owns, operates, charters, rents, or leases any U.S. or foreign-flagged container vessel, passenger vessel, or refrigerated cargo vessel that visits a California port. The rule requires reporting to ARB starting July 1, 2009 for all persons with a subject vessel or terminal under their direct control.

The Shore Power regulation generally requires:

- 70 percent of all visits after 1/1/2017 to be connected to shore power; and
- 80 percent of all visits after 1/1/2020 to be connected to shore power.

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There are limited alternative compliance paths designed to achieve similar emission reductions as well as the following exemptions:

- Continuous and expeditious navigation;
- Governmental vessels operating on non-commercial service;
- Steamships;
- Liquid or compressed natural gas powered ships;
- Container or refrigerated-cargo fleets visiting California ports fewer than 25 times per year; and
- Passenger fleets visiting fewer than five times per year.

**Potential Funding:**

- When considering funding opportunities, all visits must be counted towards satisfying compliance with the regulation before any extra visits can be counted as surplus.
  - Any visits counted by the vessel owner towards compliance with the regulation must be subtracted from the total number of visits using shore power to compute surplus.
- No visit by a vessel to a berth funded by the Goods Movement Emission Reduction Bond Program (Proposition 1B) may be counted as surplus.
- A visit may not be counted more than once. For example, a unique visit may not be counted towards funding the shore side and then counted again in a different project to fund the vessel side.
- All grants must have a minimum three year project life and may have up to 20 years regardless of the starting calendar year.
- Surplus is defined as visits in excess of the regulation on a fleet basis.
- The number of visits for each year of the project must be stated in the contract *by year*.
  - Any visit missed in a given year cannot necessarily be made up by a visit in a subsequent year since there would not be any surplus visits in the subsequent years of the contract when the maximum fraction is claimed in each year. Thus, districts should exercise caution when assigning the number of visits to the project.
  - For a given fleet, there are less and less visits per year available as surplus due to the constricting regulation.

**Maximum Possible Percentage of a Fleet’s Visits for a Given Calendar Year that May be Counted towards Surplus for Vessels**

Annual Shore power Visits	2017	2018	2019	2020	2021	2022	2023+
Compliance	70%	70%	70%	80%	80%	80%	80%
Eligible surplus	30%	30%	30%	20%	20%	20%	20%

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The shore power regulation is structured to generate emission reductions on a fleet basis. Therefore, surplus must be determined on a fleet basis. When considering funding a vessel, surplus for that vessel is determined by considering the emissions from the entire fleet. The percentages above refer to the entire fleet, not a particular vessel from a given project. The fraction of a fleet’s annual shore power visits for vessel projects counted towards surplus emission reductions for a given calendar year cannot exceed the maximum theoretical fraction shown in the table above.

Example:

Assume a vessel project that begins in 2017 with a five year life.

- Up to 30 percent of the fleet’s visits in 2017 may be counted
- Up to 30 percent of the fleet’s visits in 2018 may be counted
- Up to 30 percent of the fleet’s visits in 2019 may be counted
- Up to 20 percent of the fleet’s visits in 2020 (and beyond) may be counted

If the fleet in this example has five ships with two visits per ship per year for a total of 10 visits per year, then there would be a maximum theoretical total of 13 ‘surplus’ visits available to a vessel project (30% of 10 in 2017 + 30% of 10 in 2018 + 30% of 10 in 2019 + 20% of 10 in 2020 + 20% of 10 in 2021); the actual number of surplus visits will most likely be less than the theoretical maximum and is determined by looking at the compliance strategy and emissions of the fleet. For example, if the fleet in question has already met its compliance obligations in all years using four of its five vessels, then 100% of the fifth vessel’s visits would be surplus in all years, for a total of 10 surplus visits

**Maximum Possible Percentage of a Fleet’s Visits for a Given Calendar Year that May be Counted towards Surplus for Shore Side**

Annual Shore Power Visits	2017	2018	2019	2020	2021	2022
Compliance	70%	70%	70%	80%	80%	80%
Eligible surplus	No further surplus					

Shore side projects may not be funded after January 1, 2014, unless the terminal or port is not subject to the Shore Power Regulation.