

CLEAN AIR CONSTRUCTION (CAC) PROGRAM REQUIREMENTS

Terms/Definitions

CARB: California Air Resources Board, a state regulatory agency charged with regulating the air quality in California.

COBID: Certification Office for Business Inclusion and Diversity

Diesel Particulate Matter – the solid or liquid particles found in the air released through the exhaust from diesel vehicles/equipment. Exposure to diesel particulate matter increases the risk of heart attack, stroke, cardiovascular disease, exacerbates asthma, and can lead to low-weight and pre-term births. Diesel particulate matter is also a known as a human carcinogen as determined by the International Agency for Research on Cancer.

DMWESB: Disadvantaged, Minority, Women, or Emerging Small Business as certified by the State of Oregon Certification Office for Business Inclusion and Diversity

DOC: Diesel oxidation catalyst. A device designed to reduce harmful diesel emissions such as carbon monoxide, hydrocarbons and certain diesel particulate emissions.

DPE: Diesel particulate filter. A device designed to trap all diesel particulate matter above a certain size.

Emission Control Device: technology added to equipment to reduce harmful emissions. These may include catalytic converters and particulate filters, among other technologies.

EPA: U.S. Environmental Protection Agency, a federal regulatory agency charged with regulating the environment.

EPA Nonroad Emission Ratings/Tiers

Nonroad Diesel Emission Ratings (EPA)								
ENGINE MODEL YEAR	HORSEPOWER RANGE							
	25-49	50-74	75-99	100- 174	175-299	300- 599	600-750	750+
1995	T0	T0	T0	T0	T0	T0	T0	T0
1996	T0	T0	T0	T0	T1	T1	T1	T0
1997	T0	T0	T0	T1	T1	T1	T1	T0
1998	T0	T1	T1	T1	T1	T1	T1	T0
1999	T1	T1	T1	T1	T1	T1	T1	T0
2000	T1	T1	T1	T1	T1	T1	T1	T1
2001	T1	T1	T1	T1	T1	T2	T1	T1
2002	T1	T1	T1	T1	T1	T2	T2	T1
2003	T1	T1	T1	T2	T2	T2	T2	T1
2004	T2	T2	T2	T2	T2	T2	T2	T1
2005	T2	T2	T2	T2	T2	T2	T2	T1

2006	T2	T2	T2	T2	T3	T3	T3	T2
2007	T2	T2	T2	T3	T3	T3	T3	T2
2008	T4a	T4a	T3	T3	T3	T3	T3	T2
2009	T4a	T4a	T3	T3	T3	T3	T3	T2
2010	T4a	T4a	T3	T3	T3	T3	T3	T2
2011	T4a	T4a	T3	T3	T4a	T4a	T4a	T4a
2012	T4a	T4a	T4a	T4a	T4a	T4a	T4a	T4a
2013	T4b	T4b	T4a	T4a	T4a	T4a	T4a	T4a
2014	T4b	T4b	T4a	T4a	T4b	T4b	T4b	T4a
2015	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b
2016	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b
2017	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b
2018	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b
2019	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b
2020	T4b	T4b	T4b	T4b	T4b	T4b	T4b	T4b

Nonroad: Construction equipment and vehicles that fall under the EPA non-road engine equipment category, which includes all diesel equipment not intended for highway use. For the purpose of this policy, these vehicles/equipment include only diesel construction vehicles/equipment with engines larger than 25 horsepower, which includes tractors, excavators, dozers, scrapers and other construction vehicles/equipment.

SDVB: Service Disabled Veteran Business as certified by the State of Oregon Certification Office for Business Inclusion and Diversity.

1. Diesel Engine Requirements and Phase-In Schedule

In accordance with the phase-in schedule outlined below, all diesel-powered nonroad construction equipment greater than 25 horsepower and all on-road diesel dump trucks and concrete mixers used on TriMet construction projects must meet the following requirements. When pursuing diesel emission control device retrofits, equipment and vehicle owners shall install the emission control device that maximizes diesel particulate matter reductions for that specific piece of equipment or vehicle in accordance with the Compliance Options Protocols in Section 3.

Effective Date of Diesel Engine Requirement	Nonroad Diesel (over 25hp)				On-Road Diesel (concrete mixers and dump trucks)			
	Engine Requirements	Retrofit Options			Engine Requirements	Retrofit Options		
		DPF	DOC (only if DPF or equivalent can't be installed)			DPF	DOC (only if DPF or equivalent can't be installed)	
		All Firms	Non-DMWES B/SDVB Firms	DMWES B/SDVB Firms		All Firms	Non-DMWES B/SDVB Firms	DMWES B/SDVB Firms
January 1, 2020	No Idling							
January 1, 2021								
January 1, 2022	No Tier 0 engines allowed unless retrofit	Y	Y	Y				
January 1, 2023	No Tier 0 or 1 engines allowed unless retrofit	Y	Y	Y				
January 1, 2024	No Tier 0, 1, 2, or 3 engines allowed unless retrofit	Y	N (pre-2024 installs allowed)	N (pre-2024 installs allowed)	No pre-2007 engines allowed unless retrofit	Y	N	N (pre-2024 installs allowed)
January 1, 2025			N					

2. Exemptions to Diesel Engine Requirements

Contractors may apply for exemptions to the diesel engine requirements on a per equipment/vehicle basis, for their own fleet or that of a supplier in circumstances where they provide reasonable written documentation that:

- a) The equipment/vehicle is required for an emergency (including underground equipment operators); or
- b) After following a BACT approach, the required emission control device would obscure operator lines of sight or otherwise impact worker safety, or the equipment is not able to be retrofit with a verified emission control device; or
- c) No compliant rental equipment is available within 100 miles of the job site; or
- d) After following a BACT approach, the Contractor or Subcontractors can demonstrate that due to the uniqueness of the equipment/vehicle or similar special circumstances, it is not reasonable to comply with the diesel engine requirement for a specific piece of equipment/vehicle.

Contractors or Subcontractors shall apply for exemptions:

- a) When registering their equipment or vehicles via the CAC Compliance Portal, “The Yard” (portland.gov/cac/TheYard). Approved exemptions shall be valid for a specified timeframe, after which the exemption shall be reviewed by the CAC Program and either retired or renewed. Non-emergency exemption validity timeframes will vary by type of exemption but will be valid for a minimum of one-year.
- b) Emergency exemptions shall be submitted when a noncompliant piece of equipment/vehicle is required to respond to an emergency, as a substitute for another piece of equipment/vehicle in need of repair/maintenance, or other unforeseen circumstance. In such cases, the Contractor shall notify the Project Manager in writing and request approval for an exemption via the online CAC Compliance Portal, “The Yard.” Such exemptions shall be valid only for the duration of the emergency, repair timeframe, or similar temporary timeframe as applicable.

3. Compliance Options Protocols

The guides below provide equipment owners compliance options that may apply to their equipment following a "Best Available Technology" approach. In other words, the compliance option for a specific piece of equipment must be the option that reduces the diesel particulate matter the most within the capabilities of that piece of equipment. Compliance with the CAC Diesel Engine Requirements will be determined according to the following protocols.

NONROAD Compliance Options Protocol

Protocol Step	Question(s)	Answer	Action
1	Is the nonroad equipment over 25hp?	YES	Go to Step 2
		NO	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
2	Is the equipment required for an emergency? (including for underground equipment operators)	YES	Request Exemption
		NO	Go to Step 3
3	Is the equipment powered by electricity or alternative (non-diesel) fuel?	YES	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
	Does the diesel equipment utilize only a Tier 4 engine(s)?	NO	Go to Step 4
4	Can the equipment be repowered or retrofit with a CARB or EPA verified DPF or equivalent? ¹	YES	Repower or retrofit equipment and obtain compliance verification.
		NO	If it is currently 2023 or earlier, go to Step 5 If it is currently 2024 or later, go to Step 6.
5 (pre-2024)	Can the equipment be retrofit with an emissions control device other than DPF?	YES	Retrofit equipment with an emission control device that maximizes diesel particulate matter emission reduction. Obtain compliance verification.
		NO	Go to Step 6
6	Is compliant rental equipment available within 100 miles of the job site?	YES	Rent equipment and obtain compliance verification.
		NO	Request Exemption.
¹ Equivalent is defined as achieving the same level (within 10%) of diesel particulate matter (PM) emissions reduction as a DPF.			

ON-ROAD Compliance Options Protocol

Protocol Step	Question(s)	Answer	Action
1	Is the on-road vehicle a concrete mixer or dump truck?	YES	Go to Step 2
		NO	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
2	Is the vehicle required for an emergency? (including for underground equipment operators)	YES	Request Exemption
		NO	Go to Step 3
3	Is the vehicle powered by electricity or alternative (non-diesel) fuel?	YES	Register equipment and obtain compliance verification. No further action required other than anti-idling compliance on job-site.
	Is the diesel concrete mixer or dump truck 2007 or newer?	NO	Go to Step 4
4	Can the vehicle be repowered or retrofit with a CARB or EPA verified DPF or equivalent? ¹	YES	Repower or retrofit equipment and obtain compliance verification.
		NO	If it is currently 2023 or earlier <u>and</u> the vehicle owner is a DMWESB/SDVB firm, go to Step 5. If it is currently 2024 or later, go to Step 6.
5 (pre-2024)	Can the equipment/vehicle be retrofit with a CARB or EPA verified emissions control device other than DPF?	YES	Retrofit equipment with a CARB or EPA verified emission control device that maximizes diesel particulate matter emission reduction. Obtain compliance verification.
		NO	Go to Step 6
6	Is compliant rental equipment available within 100 miles of the job site?	YES	Rent equipment and obtain compliance verification.
		NO	Request Exemption.
¹ Equivalent is defined as achieving the same level (within 10%) of diesel particulate matter (PM) emissions reduction as a DPF.			

