

Section 2020 Purpose and Definitions for Diesel Particulate Control Measures

- (a) **Purpose.** Diesel particulate matter was identified in 1998 as a toxic air contaminant. According to California law, an airborne toxic control measure using the best available control technology shall, therefore, be employed to reduce the public's exposure to diesel particulate matter.
- (b) **Definitions.** For the purposes of the fleet rules specified in Sections 2020 through 2029, the following definitions apply:¹

"Alternative fuel" means the same as in title 13, California Code of Regulations, section ~~1956.2(b)(1)~~2023.1(b).

"Commercially available" means available for purchase and installation.

"Heavy-duty pilot ignition engine" means an engine designed to operate using an alternative fuel, except that diesel fuel is used for pilot ignition at an average ratio of no more than one part diesel fuel to ten parts total fuel on an energy equivalent basis. An engine that can operate or idle solely on diesel fuel at any time does not meet this definition.

"Municipality" means a city, county, city and county, special district, or a public agency of the United States of America or the State of California, and any department, division, public corporation, or public agency of this State or of the United States, or two or more entities acting jointly, or the duly constituted body of an Indian reservation or rancheria.

*"Municipal active fleet" means the total of municipal fleet vehicles owned by a municipality.

*"Municipal contract fleet" means the total of municipal fleet vehicles operated under contract to a municipality

*"Municipal fleet vehicle" means an on-road heavy-duty vehicle with a manufacturer's gross vehicle weight rating of greater than 14,000 pounds, owned or operated on public roads by a municipality.

"Owner" means the same as in title 13, California Code of Regulations, section 2180.1(21).

"Verified" means the diesel emission control strategy or system that reduces particulate matter engine emissions at a verified level as defined in the "Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines" in title 13, California Code of Regulations, section 2702 (f), Table 1.

¹ Starred definitions are new to this section; the others are repeated to make this proposal easier to read.

NOTE: Authority cited: sections 39600 and 39601, Health and Safety Code.
Reference: sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, and 43105.

Section 2022 Diesel Particulate Matter Control Measure for Publicly-Owned On-road Heavy-duty Diesel-fueled Vehicles

- (a) **Scope and Applicability.** This regulation applies to any municipality that owns, leases, or operates, or contracts for operation, 1960 to 2006 engine model year on-road diesel-fueled heavy-duty vehicles with a manufacturer's gross vehicle weight rating greater than 14,000 pounds. This section does not apply to an owner of solid waste collection vehicles or to a transit agency².

Section 2022.1 Requirements Applicable to a Municipal Active Fleet.

- (a) **Compliance Requirements.** As of the applicable effective dates, a municipality is required to comply with this diesel particulate matter control measure for each vehicle in its municipal active fleet. Compliance requires:
- (1) Use of a best available control technology for each vehicle as specified in paragraph (b),
 - (2) Implementation for each vehicle as specified in paragraph (c),
 - (3) Use of appropriate fuel for each vehicle as specified in paragraph (d), and
 - (4) If a compliance deadline extension is granted by the Executive Officer per paragraph (e), the owner shall be deemed to be in compliance as specified by authorization from the Executive Officer, and
 - (5) Recordkeeping as specified in section 2022.3.
- (b) **Best Available Control Technology.** Each municipality shall use one of the following best available control technologies on each engine in the municipal active fleet as required by the implementation schedule in paragraph (c):
- (1) An engine or power system alone, or used in combination with a verified diesel emission control strategy, that is certified to the optional 0.01 g/bhp-hr particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8(a)(2), or the 0.01 g/bhp-hr particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8(a), when effective; or

² For rules applying to solid waste collection vehicle owners, see section 2021. For rules applying to transit agencies, see section 2023.

- (2) An alternative fuel engine, or a heavy-duty pilot ignition engine, provided that the engine is certified to the lowest optional particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8 or;
- (3) The highest level diesel emission control strategy that is verified for an engine to reduce diesel particulate matter, as set forth in the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” as specified in title 13, California Code of Regulations commencing with section 2700 incorporated by reference herein, and which the diesel emission control strategy manufacturer or agent responsible for installation agrees can be used on a specific engine and vehicle combination.
- (4) Continuous Compliance. Once a vehicle is in compliance with this regulation it must remain in compliance for the life of the vehicle.

(c) **Implementation Schedule.**

- (1) For vehicles owned by a municipality, the municipality shall comply with the schedule in Table 1 - Implementation Schedule for a Municipal Active Fleet, for the specified percentage of vehicles by each applicable compliance deadline.

Table 1 – Implementation Schedule for a Municipal Active Fleet

Tier	Engine Model Years	Percentage of Tier to Use Best Available Control Technology	Compliance Deadline
1	1987 – 2002	25	December 31, 2005
		50	December 31, 2006
		75	December 31, 2007
		100	December 31, 2008
2	1960 – 1986	100	December 31, 2009
3	2003 – 2006	100	December 31, 2009

- (2) Calculating Percentages for Implementation based on Municipal Active Fleet Size. The municipality shall calculate the size of its municipal active fleet on January 1st of each year. The total number of vehicles required to be in compliance by the “Compliance Deadline” (TotVeh) is calculated by multiplying “Percentage of Tier to Use Best Available Control Technology” (Tier%BACT) for that year by the sum of the number of vehicles in an engine model year tier (#) as in this following expression:

$$\text{TotVeh} = \text{Tier\%BACT} * (\#)$$

- (A) The total number of vehicles in compliance (TotComp) as of the calculation date shall be subtracted from TotVeh to determine the total number of additional vehicles required to be brought into compliance (TotAddComp) before the next compliance deadline as in the following expression:

$$\text{TotAddComp} = \text{TotVeh} - \text{TotComp}$$

(B) If the TotAddComp is not equal to a whole number of vehicles, the owner shall round up to the nearest vehicle when the fractional part of AddComp is greater than or equal to one-half of a vehicle, and round down to the nearest vehicle when the fractional part of AddComp is less than one-half of a vehicle.

(d) **Fuel Requirement.** After December 31, 2004, a municipality shall use diesel fuel with a sulfur content of 15 parts per million by weight or less for diesel vehicles in its municipal active fleet. A fuel that is verified by the Executive Officer as a diesel emission control strategy in accordance with title 13, California Code of Regulations, sections 2700 et seq., may be used instead of diesel fuel with a sulfur content of 15 parts per million by weight or less. A municipality with fewer than fifteen vehicles in its municipal active fleet, and that operates in a federal one-hour ozone attainment area, is not subject to this low-sulfur fuel requirement until July 1, 2006.

(e) **Compliance Extensions.** A municipality may receive an extension in compliance under the following circumstances:

(1) **No Verified Diesel Emission Control Strategy.** If no diesel emission control strategy has been verified under title 13, California Code of Regulations, sections 2700 et seq., or is not commercially available for a particular engine and vehicle combination, an annual extension in compliance may be granted under the conditions specified in (A) or (B) below:

(A) **Executive Officer Compliance Extension.** The Executive Officer shall grant a blanket one-year compliance extension if a diesel emission control strategy is not verified for an engine ten months prior to each compliance deadline specified in paragraph (c)(1). For tier 1 engines, the Executive Officer shall grant an annual extension until 2008, after which the municipality shall comply with paragraph (b) by December 31, 2009. For tiers 2 and 3 engines, the Executive Officer may grant an annual extension until 2009, after which the municipality shall comply with paragraph (b) by December 31, 2010.

(B) **Municipality Application Compliance Extension.** A municipality may apply to the Executive Officer for a compliance extension for one or more engines if a diesel emission control strategy is not verified or commercially available six months prior to each compliance deadline specified in paragraph (c)(1). The municipality must provide documentation as follows:

(i) Identification of each engine for which no diesel emission control strategy has been verified, or

(ii) Identification of each engine and vehicle combinations for which no diesel emission control strategy is commercially available and a list of

manufacturers that have been contacted with their responses to a request to purchase.

- (iii) The municipality shall certify by signature that it is in compliance as required in paragraph (b) for all vehicles in its municipal active fleet.
- (iv) The application for compliance must be received by the Executive Officer no later than July 31 annually beginning 2005. For tier 1 engines, the Executive Officer will accept an annual compliance extension application until July 31, 2008, after which the municipality shall comply with paragraph (b) by December 31, 2009. For tiers 2 and 3 engines, the Executive Officer will accept an annual compliance extension application until July 31, 2009, after which the municipality shall comply with paragraph (b) by December 31, 2010.

(2) Fleet in Federal One-Hour Ozone Attainment Area. A municipality located within a federal one-hour ozone attainment area may delay implementation of the intermediate compliance deadlines provided the municipality complies with the 100% compliance deadlines.

- (f) **Diesel Emission Control Strategy Special Circumstances.** A municipality shall maintain best available control technology on each vehicle once that vehicle is in compliance, and is not required to upgrade to a higher level of best available control technology, except under the following special circumstances:

(1) Diesel Emission Control Strategy Failure or Damage. In the event of failure or damage of a diesel emission control strategy, the following conditions apply:

(A) Failure or Damage During Warranty Period. If a diesel emission control strategy fails or is damaged within its warranty period and the diesel emission control strategy manufacturer or person responsible for installation determines it can not be repaired, the municipality shall replace the diesel emission control strategy with either the same level diesel emission control strategy or another best available control technology as defined in paragraph (b), or

(B) Failure or Damage Outside of Warranty Period. If a diesel emission control strategy fails or is damaged outside of its warranty period, and it cannot be repaired, the municipality shall install a diesel emission control strategy that is the best available control technology at that time as defined in paragraph (b).

(C) Repairable Malfunction. If a diesel emission control strategy malfunctions but is repaired to proper operating specifications within a reasonable amount of time, a municipality is not required to replace that diesel emission control strategy with current best available control technology.

(2) Discontinuation of Fuel or Fuel Additive Verified as a Diesel Emission Control

Strategy. If a municipality discontinues use of a fuel or fuel additive verified as a diesel emission control strategy for a vehicle in its municipal active fleet, the municipality shall implement best available control technology as defined in paragraph (b) no later than 30 days from the date of discontinuation.

(3) Level 1 Diesel Emission Control Strategy. A Level 1 diesel emission control strategy may be used for a limited time as a best available control strategy.

(A) A municipality may only use a Level 1 diesel emission control strategy in a tier 1 or 2 model year engine for ten years, after which the municipality shall replace the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b)(1) or (b)(2).

(B) A municipality may only use a Level 1 diesel emission control strategy in a tier 3 model year engine for five years, after which the municipality shall replace the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b)(1) or (b)(2).

(4) Engine Retirement Exemption. If an engine is within one year of retirement, the municipality is exempt from applying the best available control technology as defined in paragraph (b) to that engine.

(5) Use of Experimental Diesel Particulate Matter Emission Control Technologies. A municipality may use an experimental diesel particulate matter emission control strategy provided by or operated by the manufacturer in no more than ten vehicles in its municipal active fleet for testing and evaluation purposes. The vehicle will be considered to be in compliance for the length of the testing and evaluation period of the experimental technology on that vehicle. The municipality must bring the vehicle into compliance within six months of the end of the testing and evaluation period.

NOTE: Authority cited: sections 39600 and 39601, Health and Safety Code.
Reference: sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, and 43105.

Section 2022.2 Requirement Applicable to a Municipal Contract Fleet

(a) **Compliance Requirements.** As of the applicable effective dates, a municipality is required to ensure that its municipal contract fleet complies with this diesel particulate matter control measure. Compliance requires:

(1) Use of a best available control technology for each vehicle as specified in paragraph (b),

(2) Implementation for each vehicle as specified in paragraph (c),

- (3) Use of appropriate fuel for each vehicle as specified in paragraph (d), and
- (4) Recordkeeping as specified in section 2022.3.

(b) **Best Available Control Technology.** The owner of each municipal contract fleet shall use one of the following best available control technologies on each engine in the municipal contract fleet as required by the implementation schedule in paragraph (c):

- (1) An engine or power system alone, or used in combination with a verified diesel emission control strategy, that is certified to the optional 0.01 g/bhp-hr particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8(a)(2), or the 0.01 g/bhp-hr particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8(a), when effective; or
- (2) An alternative fuel engine, or a heavy-duty pilot ignition engine, provided that the engine is certified to the lowest optional particulate emission standard as specified in title 13, California Code of Regulations, section 1956.8 or;
- (3) The highest level diesel emission control strategy that is verified for an engine to reduce diesel particulate matter, as set forth in the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” as specified in title 13, California Code of Regulations commencing with section 2700 incorporated by reference herein, and which the diesel emission control strategy manufacturer or agent responsible for installation agrees can be used on a specific engine and vehicle combination.
- (4) Continuous Compliance. Once a vehicle is in compliance with this regulation it must remain in compliance for the life of the vehicle.

(c) **Implementation Schedule.**

- (1) For each vehicle in the municipal contract fleet, the municipality shall comply with the schedule in Table 1 – Implementation Schedule for a Municipal Contract Fleet, for the specified percentage of vehicles by each applicable compliance deadline.

Table 1 – Implementation Schedule for a Municipal Contract Fleet

Tier	Engine Model Years	Compliance Deadline
1	1987 – 2002	December 31, 2006
2	1960 – 1986	December 31, 2007
3	2003 – 2006	December 31, 2009

(d) **Fuel Requirement.** After December 31, 2004, a municipality shall require that

each vehicle in the municipal contract fleet shall use diesel fuel with a sulfur content of 15 parts per million by weight or less. A fuel that is verified by the Executive Officer as a diesel emission control strategy in accordance with title 13, California Code of Regulations, sections 2700 et seq., may be used instead of diesel fuel with a sulfur content of 15 parts per million by weight or less. A municipality with fewer than fifteen vehicles in its municipal contract fleet, and that operates in a federal one-hour ozone attainment area, is not subject to this low-sulfur fuel requirement until July 1, 2006.

- (e) **Diesel Emission Control Strategy Special Circumstances.** A municipality shall require that best available control technology be maintained on each vehicle in the municipal contract fleet once that vehicle is in compliance, and is not required to upgrade to a higher level of best available control technology, except under the following special circumstances:

(1) Diesel Emission Control Strategy Failure or Damage. In the event of failure or damage of a diesel emission control strategy, the following conditions apply:

(A) Failure or Damage During Warranty Period. If a diesel emission control strategy fails or is damaged within its warranty period and the diesel emission control strategy manufacturer or person responsible for installation determines it can not be repaired, the municipality shall require that the diesel emission control strategy be replaced with either the same level diesel emission control strategy or another best available control technology as defined in paragraph (b), or

(B) Failure or Damage Outside of Warranty Period. If a diesel emission control strategy fails or is damaged outside of its warranty period, and it cannot be repaired, the municipality shall require that a diesel emission control strategy that is the best available control technology be installed as defined in paragraph (b).

(C) Repairable Malfunction. If a diesel emission control strategy malfunctions but is repaired to proper operating specifications within a reasonable amount of time, a municipal contract fleet vehicle will be deemed to be in compliance once it is repaired.

(2) Discontinuation of Fuel or Fuel Additive Verified as a Diesel Emission Control Strategy. If use of a fuel or fuel additive verified as a diesel emission control strategy in a vehicle in a municipal contract fleet is discontinued, the municipality shall require implementation of best available control technology as defined in paragraph (b) no later than 30 days from the date of discontinuation.

(3) Level 1 Diesel Emission Control Strategy. A Level 1 diesel emission control strategy may be used for a limited time as a best available control strategy.

(A) The owner of a vehicle in a municipal contract fleet may only use a Level 1 diesel emission control strategy in a tier 1 or 2 model year engine for ten years, after which the municipality shall require replacement of the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b)(1) or (b)(2).

(B) The owner of a vehicle in a municipal contract fleet may only use a Level 1 diesel emission control strategy in a tier 3 model year engine for five years, after which the municipality shall require replacement of the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b)(1) or (b)(2).

Section 2022.3 Record Keeping and Reporting.

(a) As of December 31, 2005, a municipality shall comply with the following record keeping and reporting requirements for its municipal active fleet. The municipality shall provide the following records to an agent or employee of the Air Resources Board upon request for all vehicles in its municipal active fleet subject to compliance with this regulation.

(1) Records Accessible at Maintenance Yard. The municipality shall keep the following records accessible either in hard copy format or computer records at the maintenance yard where a vehicle normally resides when not working:

(A) A list of vehicles identifying each vehicle type, engine manufacturer, engine model, engine model year, and,

(B) Correlated to each vehicle, the installed diesel emission control strategy, its serial number, manufacturer, model, level, installation date, and if using a Level 1 or Level 2 verified diesel emission control strategy, justification for installation, and,

(C) Records of maintenance for each installed diesel emission control strategy, and,

(D) For fuel or fuel additives, if used as a diesel emission control strategy, records of purchase that document usage, and,

(E) For each engine for which a municipality is claiming an exemption pursuant to section 2022.1 (f)(4), the vehicle identification number, engine manufacturer, engine model, engine model year, and retirement date, and

(F) For each engine for which a municipality is claiming an exemption pursuant to section 2022.1 (f)(5), the vehicle identification number, engine

manufacturer, engine model, engine model year, and documentation of the experimental program.

(2) Records Kept in the Vehicle. For each vehicle, a municipality shall keep the following information affixed to the driver's side door jam, or another readily accessible location known by the driver of each vehicle, in the form of a legible and durable label:

(A) For each installed diesel emission control strategy, label information as specified in title 13, California Code of Regulations, section 2706 (g), and the installation date, or

(B) Engine model year and planned compliance date, or

(C) Engine model year and retirement date for which a municipality is claiming an exemption pursuant to section 2022.1 (f)(4).

(D) Engine model year and duration of experimental program for each vehicle for which a municipality is claiming an exemption pursuant to section 2022.1 (f)(5).

(3) A municipality shall keep records for each vehicle until it is sold outside of the State of California or destroyed.

(4) Annual Reports. A municipality shall submit annual reports to the Executive Officer listing all vehicle in its municipal active fleet as of January 1st of each applicable year beginning January 31, 2005, and every January 31st through the year 2010. Each report shall include a list of each vehicle in the municipal active fleet, including for each vehicle the vehicle type, fuel used, engine manufacturer, engine model, engine model year, and method of compliance, grouped by vehicle location.

(b) As of December 31, 2005, a municipality shall comply with the following record keeping and reporting requirements for vehicles in its municipal contract fleet. The municipality shall provide the following records to an agent or employee of the Air Resources Board upon request for all vehicles in its municipal contract fleet subject to compliance with this regulation.

(1) Records Kept in the Municipal Contract Fleet Vehicle. For each vehicle, a municipality shall keep the following information affixed to the driver's side door jam, or another readily accessible location known by the driver of each vehicle, in the form of a legible and durable label:

(A) For each installed diesel emission control strategy, label information as specified in title 13, California Code of Regulations, section 2706 (g), and the installation date, or

(B) Engine model year and planned compliance date.

(2) Annual Reports. A municipality shall submit annual reports to the Executive Officer listing all vehicle in its municipal contract fleet as of January 1st of each applicable year beginning January 31, 2005, and every January 31st through the year 2010. Each report shall include all of the following information:

(A) A list of each vehicle in the municipal contract fleet, including for each vehicle the vehicle type, fuel used, engine manufacturer, engine model, engine model year, and method of compliance, grouped by vehicle location; and

(B) A list of each contractor as of January 1st and the on-road diesel-fueled heavy-duty vehicles, including vehicle type, fuel used, engine manufacturer, engine model, and engine model year, that will be used by the contractor to do work for the municipality; and

(C) An annual signed statement from each contractor stating it is in compliance with title 13, California Code of Regulations, section 2022; or

(D) An annual signed statement from the municipality stating that signed statements of compliance have been received from each contractor.

NOTE: Authority cited: sections 39600 and 39601, Health and Safety Code.
Reference: sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, and 43105.

~~1956.2~~2023.1 Fleet Rule for Transit Agencies

(a) [No Change]

(b) Add the following definition:

(7) “Non-urban bus” means a passenger-carrying vehicle powered by a medium or heavy heavy-duty diesel engine, or of a type normally powered by a medium or heavy heavy-duty diesel engine; with a load capacity of fifteen or more passengers and intended primarily for operation within a greater metropolitan area; owned or operated by a transit agency; and which is not an urban bus.

(c) [No Change]

(d) [No Change]

(e) [No Change]

(f) [No Change]

(g) [No Change]

2023.2 Zero-emission Bus Requirements [No Change]

2023.3 Reporting Requirements for ~~all Urban Bus~~ Transit Agencies

(a) though (g) [No Change]

(h) Each transit agency shall submit the following reports on the total diesel PM emission reduction requirements:

(1) An initial annual report shall be submitted January 31, 2005, and shall contain, at a minimum, the following information:

(A) number, manufacturer, make, and model year of all non-urban buses; the PM engine certification value of each non-urban bus engine; and the diesel PM emission total for the baseline date of January 1, 2005.

(B) For each non-urban bus for which a diesel emission control strategy has been applied, its Diesel Emission Control Strategy Family Name in accordance with the requirements of section 2705 (g)(2), title 13, CCR; and the date of installation.

(2) Annual reports shall be submitted each year beginning January 31, 2006, and each January 31st thereafter through 2011, and shall contain the information

required in sections (h)(1)(A) and (B) above, plus the total percentage reduction of PM achieved from the baseline diesel PM emission total as of January 1st of each applicable year.

2023.4 Non-urban Bus Particulate Matter Reduction Requirements for Transit Agencies

- (a) To reduce public exposure to diesel particulate matter, each transit agency shall reduce the total diesel PM emissions of its diesel non-urban buses relative to its total diesel PM emissions from non-urban buses as of January 1, 2005, according to the schedule below.
 - (1) A transit agency shall calculate its diesel PM emission total for non-urban buses by summing the PM (FTP) certification value, in grams per brake horsepower-hour (g/bhp-hr), for each non-urban bus, as identified in the Executive Order for the specific engine and engine model year used in the bus. For 1987 and earlier model year engines, the PM certification value shall be deemed to be 1.0 g/bhp-hr.
 - (2) No later than January 1, 2006, the diesel PM emission total for a transit agency's non-urban buses shall be no more than 75 percent of its diesel PM emission total on January 1, 2005.
 - (3) No later than January 1, 2008, the diesel PM emission total for a transit agency's non-urban buses shall be no more than 50 percent of its diesel PM emission total on January 1, 2005.
 - (4) No later than January 1, 2011, the diesel PM emission total for a transit agency's non-urban buses shall be no more than 20 percent of its diesel PM emission total on January 1, 2005.