

APPENDIX A

**PROPOSED DIESEL PARTICULATE MATTER CONTROL
MEASURE FOR ON-ROAD HEAVY-DUTY DIESEL-FUELED
RESIDENTIAL AND COMMERCIAL SOLID WASTE
COLLECTION VEHICLES**

1. Adopt article 4 within chapter 3, division 3, title 13, California Code of Regulations, and new sections 2020, 2021.1, and 2021.2, to read as follows: (Note: The entire text of sections 2020, 2021.1, and 2021.2 set forth below is new language proposed to be added to the California Code of Regulations.)

Section 2020 Purpose and Definitions for Diesel Particulate Matter 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 rule specified in article 4, the following definitions apply:

"Active fleet" means the total, by terminal, of an owner's vehicles, excluding backup vehicles.

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

"Backup vehicle" means a vehicle that is driven less than 1000 miles annually.

"Commercially available" means available for purchase and installation at a reasonable cost.

"Contract" means to authorize an owner, through a contract, franchise agreement, permit, license or similar approval from a municipality, to perform residential or commercial solid waste collection service.

"Contractor" means an owner with a contract, franchise agreement, permit, license or similar approval from a municipality to collect residential or commercial solid waste.

"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.

"Level" means one of three categories of Air Resources Board-verified diesel emission control strategies: Level 1 means the strategy reduces engine diesel particulate matter emissions by between 25 and 49 percent, Level 2 means the strategy reduces engine diesel particulate matter emissions by between 50 and 84 percent, and Level 3 means the strategy reduces engine diesel particulate matter emissions by 85 percent or greater, or emits less than or equal to 0.01 grams per brakehorse power-hour diesel particulate matter.

“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.

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

“Retirement” means the vehicles will no longer be used as part of an active fleet in California. It may be sold outside of California, scrapped, or used as a back up vehicle.

“Residential and commercial solid waste” means all putrescible and nonputrescible solid, and semisolid wastes, including garbage, trash, refuse, rubbish, ashes, yard waste, recyclable materials, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes originating from single-family or multiple family dwellings, stores, offices, and other commercial sources, and construction and demolition projects in residential and commercial zones, not including hazardous, radioactive, or medical waste.

“Roll off vehicle” means any heavy-duty vehicle used for transporting waste containers such as open boxes or compactors that may be removed from the tractor.

“Solid waste collection vehicle” means an on-road heavy-duty vehicle with a manufacturer’s gross vehicle weight rating of greater than 14,000 pounds used for the purpose of collecting residential and commercial solid waste for a fee, including roll off vehicles.

“Terminal” means any place or places where a vehicle is regularly garaged or maintained, or from which it is operated or dispatched, which may include a private business or residence.

“Verified” means that a diesel emission control strategy or system has received approval from the Executive Officer according to the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” in title 13, California Code of Regulations, commencing with section 2700, and incorporated by reference.

“Warranty Period” means the same as in title 13, California Code of Regulations, section 2707.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code.
Reference: Sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700.

Section 2021 . Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled Residential and Commercial Solid Waste Collection Vehicles

- (a) **Scope and Applicability.** Section 2021, 2021.1, and 2021.2 shall apply to solid waste collection vehicles owners, both private and government entities, and to municipalities that authorize owners through a contract, franchise agreement, permit, license or similar approval for residential and commercial solid waste collection service. These regulations mandate the reduction of diesel PM emissions from 1960 to 2006 model-year engines in on-road diesel-fueled heavy-duty residential and commercial solid waste collection vehicles with a manufacturer's gross vehicle weight rating greater than 14,000 pounds.
- (b) **Definitions.** The definitions in section 2020 shall apply to sections 2021, 2021.1, and 2021.2.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code, Reference: Sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, 43105, and 43700.

Section 2021.1. Methods for Determining Compliance with the Diesel Particulate Matter Control Measure for a Municipality that Contracts with Owners for Solid Waste Collection.

- (a) **Compliance Requirement.** As of December 31, 2004, a municipality shall ensure that each contractor, for which it regulates the rates that may be charged to those who receive solid waste collection services, is in compliance with title 13, California Code of Regulations, section 2021.2.
- (b) **Reporting Requirement.** A municipality shall submit the following reports to the Executive Officer as described in subparagraphs (1) and (2) below:
 - (1) **Initial Report.** A municipality shall submit a report by August 1, 2004, to the Executive Officer listing all its contractors as of June 30, 2004. Each report shall include the following:
 - (A) Municipality name, address, telephone number, fax number, contact name and electronic mail address;
 - (B) For each contract, the contractor name, owner name, contact name, if different from owner name, business address, business telephone number, business fax number, the address of each terminal, California Highway Patrol issued California fleet identification, terminal identification numbers of terminals serving that municipality, and an active fleet list by vehicle identification numbers serving the municipality;

(C) A description of total cost and a funding source to bring a contractor into compliance with title 13, California Code of Regulations, section 2021.2 to the extent to which a municipality regulates rates.

(2) Annual Reports. A municipality shall submit annual reports to the Executive Officer listing all its contractors as of January 1st of each applicable year beginning January 31, 2006, and every January 31st through the year 2013. Each report shall include all of the information in paragraph (b)(1), and in addition the following:

(A) An annual signed statement from each contractor stating it is in compliance with title 13, California Code of Regulations, section 2021.2; or

(B) An annual signed statement from the municipality stating that signed statements have been received from each contractor in accordance with paragraph (b)(2)(A); and

(C) Any new contractor information since the previous report as specified in (b)(1)(B); and

(D) The name of any contractor who has not submitted the annual signed statement required in (b)(2)(A) and the information for that contractor as specified in (b)(1)(B).

(c) **Non-Compliance by a Contractor.** Following submission of the initial or annual report required in (a) or (b):

(1) Upon determination by the municipality that a contractor is not in compliance with title 13, California Code of Regulations, section 2021.2, the municipality shall notify the Executive Officer in writing of the non-compliance within 30 days of the determination.

(2) Within seven days of receipt of any notification that the contractor's solid waste collection vehicle is not in compliance with title 13, California Code of Regulations, section 2021.2, the contractor shall send the municipality or municipalities served the notification or a copy thereof.

(d) **Non-Compliance by a Municipality.** Any violations of this section may carry civil penalties as specified in state law and regulations, including, but not limited to, Health and Safety Code section 44381.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code.
Reference: Sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700.

Section 2021.2 Methods for Determining Compliance with Diesel Particulate Matter Control Measure for an Owner of Solid Waste Collection Vehicles and a Municipality that Contracts for Solid Waste Collection Service.

- (a) **Compliance Requirements.** As of the applicable effective dates, an owner who operates an active fleet of one or more solid waste collection vehicles and a municipality that contracts for solid waste collection service are required to comply with this diesel particulate matter control measure. Compliance requires:
- (1) Use of a best available control technology for each solid waste collection vehicle in the active fleet as specified in paragraph (b),
 - (2) Implementation for solid waste collection vehicles in the active fleet as specified in paragraph (c), and
 - (3) If a compliance deadline extension is granted by the Executive Officer per paragraph (d), the owner shall be deemed to be in compliance as specified by the Executive Officer's authorization.
 - (4) Special circumstances may apply when a diesel emission control strategy is used as a best available control technology as specified in paragraph (e).
 - (5) Record keeping as specified in paragraph (f).
 - (6) Continuous Compliance. Once a vehicle is in compliance with this regulation it must remain in compliance for the life of the vehicle while it is operated in California.
- (b) **Best Available Control Technology.** Each owner shall use one of the following best available control technologies on each engine in his 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) An alternative fuel or heavy-duty pilot ignition engine. Model Year 2004 – 2006 engines must be certified to the optional, reduced emission standards as specified in title 13, California Code of Regulations, section 1956.8 (a)(2)(A); or
 - (3) The highest level diesel emission control strategy per title 13, California Code of Regulations, section 2702 (f), Table 1, that is verified for a specific engine to reduce diesel particulate matter and which the diesel emission control

strategy manufacturer or authorized dealer agrees can be used on a specific engine and vehicle combination, without jeopardizing the original engine warranty in effect at the time of application.

- (c) **Implementation Schedule.** The owner shall comply with the schedule in Table 1 - Implementation Schedule for Solid Waste Collection Vehicles, Model Years 1960 to 2006, for the specified percentage of vehicles by each applicable compliance deadline.

Table 1 - Implementation Schedule for Solid Waste Collection Vehicles, Model Years 1960 to 2006.

Group	Engine Model Years	Percentage of Group to Use Best Available Control Technology	Compliance Deadline
1	1988 – 2002	10	December 31, 2004
		25	December 31, 2005
		50	December 31, 2006
		100	December 31, 2007
2 ^a	1960 – 1987	25	December 31, 2007
		50	December 31, 2008
		75	December 31, 2009
		100	December 31, 2010
3	2003 – 2006	50	December 31, 2009
		100	December 31, 2010

^aGroup 2: An owner of an active fleet of 15 or more collection vehicles may not use Level 1 technology as best available control technology.

- (1) Calculating Number of Vehicles Required for Implementation based on Active Fleet Size. The owner shall calculate the size of his active fleet on January 1st of each year. The total number of solid waste collection vehicles required to be in compliance by the “Compliance Deadline” (TotVeh) is calculated by multiplying “Percentage of Group to Use Best Available Control Technology” (Group%BACT) for that year by the sum of the number of solid waste collection vehicles in an engine model year group (#SWCV) as in this following expression:

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

(A) The total number of solid waste collection vehicles in compliance (TotComp) as of the calculation date shall be subtracted from TotVeh to determine the total number of additional solid waste collection 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 solid waste collection vehicles, the owner is expected to round up to the nearest solid waste collection vehicle when the fractional part of TotAddComp is greater than or equal to one-half of a solid waste collection vehicle, and expected to round down to the nearest solid waste collection vehicle when the fractional part of TotAddComp is less than one-half of a solid waste collection vehicle.

(d) **Compliance Extensions.** An owner may receive an extension in compliance for the following reasons:

(1) Compliance Deadline Extensions based on Early Implementation.

(A) If an owner has implemented best available control technology on fifty percent or more of his Group 1 solid waste collection vehicles by December 31, 2004, then the owner may delay the 100 percent compliance deadline for Group 1 to December 31, 2009.

(B) If an owner has implemented best available control technology on fifty percent or more of his Group 2 solid waste collection vehicles by December 31, 2006, then the owner may delay the 100 percent compliance deadline for Group 2 to December 31, 2012.

(2) No Verified Diesel Emission Control Strategy. If the Executive Officer has not verified a diesel emission control strategy, or one is not commercially available, for a particular engine and vehicle combination, an annual extension in compliance may be granted by the Executive Officer 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).

(i) For Group 1 solid waste collection vehicle engines, the Executive Officer shall grant an annual extension through 2007, after which the owner shall comply with paragraph (b) by December 31, 2008.

(ii) For Groups 2 and 3 solid waste collection vehicle engines, the Executive Officer shall grant an annual extension through 2010, after which the owner shall comply with paragraph (b) by December 31, 2011.

(B) Owner Application Compliance Extension. An owner may apply to the Executive Officer for a compliance extension for one or more engines if a diesel emission control strategy is not verified by the Executive Officer, it would jeopardize the original engine warranty, or is not commercially available,

for an engine six months prior to each compliance deadline specified in paragraph (c). The owner 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 for a specific diesel emission control strategy would jeopardize the original engine warranty and a statement from each engine manufacturer or authorized dealer stating the original engine warranty would be jeopardized.
- (iii) Identification of each engine and vehicle combination 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.
- (iv) The owner shall certify by signature that he is in compliance as required in paragraph (b) for all applicable active fleet vehicles.
- (v) The application for compliance extension must be received by the Executive Officer no later than July 31 annually beginning 2004. For Group 1 solid waste collection vehicle engines, the Executive Officer will accept an annual compliance extension application until July 31, 2007, after which the owner shall comply with paragraph (b) by December 31, 2008. For Groups 2 and 3 solid waste collection vehicle engines, the Executive Officer will accept an annual compliance extension application until July 31, 2010, after which the owner shall comply with paragraph (b) by December 31, 2011.

(3) **Active Fleet with Fewer than Four Vehicles.** An owner with three or fewer solid waste collection vehicles in his active fleet may delay the compliance deadline of any engine in Group 1 to December 31, 2007, and in Group 2 to December 31, 2010.

(e) **Diesel Emission Control Strategy Special Circumstances.** An owner 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 specified special circumstances.

(1) **Diesel Emission Control Strategy Failure or Damage.** In the event of a 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 authorized dealer determines it can not be repaired, the owner 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).

(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 owner shall install a diesel emission control strategy that is the best available control technology at that time as defined in paragraph (b) unless it meets (4) below.

(2) Discontinuation of Fuel Verified as a Diesel Emission Control Strategy. In the event another best available control technology is not commercially available within 30 days from the date of discontinuation of a fuel verified as a diesel emission control strategy, the owner shall submit a compliance plan to the Executive Officer no later than 60 days after discontinuation that demonstrates the owner will bring his active fleet into compliance within six months.

(3) Level 1 Diesel Emission Control Strategy. If a Level 1 diesel emission control strategy is identified as the best available control technology pursuant to paragraph (b), an owner is subject to the following limitations:

(A) Group 1. An owner may use a Level 1 diesel emission control strategy in a Group 1 engine for ten years, after which the owner shall replace the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b), except that a Level 1 diesel emission control strategy cannot be installed.

(B) Group 2. An owner with fewer than 15 vehicles in his active fleet may use a Level 1 diesel emission control strategy in a Group 2 engine for ten years, after which the owner shall replace the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b), except that a Level 1 diesel emission control strategy cannot be installed.

(C) Group 2. An owner with 15 or more vehicles in his active fleet may not use a Level 1 diesel emission control strategy on any Group 2 engine.

(D) Group 3. An owner may use a Level 1 diesel emission control strategy in a Group 3 engine for five years, after which the owner shall replace the Level 1 diesel emission control strategy with the best available control technology from subparagraph (b), except that a Level 1 diesel emission control strategy cannot be installed.

(4) Engine Retirement Exemption. If an owner determines that an engine is within one year of retirement from the active fleet, the owner is exempt from applying the best available control technology as defined in paragraph (b) to that engine, provided documentation of expected retirement date is kept in records as specified in paragraph (f) and the engine is retired as of the stated

expected retirement date. An owner may not roll the expected retirement date of a vehicle into the future to avoid compliance.

(5) Use of Experimental Diesel Particulate Matter Emission Control Technologies. An owner may use an experimental diesel particulate matter emission control strategy provided by or operated by the manufacturer in no more than ten solid waste collection vehicles in his active fleet for testing and evaluation purposes. Documentation of this use shall be kept in records as specified in paragraph (f). Each solid waste collection vehicle will be considered to be in compliance for the length of the testing and evaluation period of the experimental technology on that solid waste collection vehicle. The owner must bring the solid waste collection vehicle into compliance within six months of the end of the testing and evaluation period.

(f) **Record Keeping Requirement.** As of December 31, 2004, an owner shall maintain the following records. The owner shall provide the following records to an agent or employee of the Air Resources Board upon request for all solid waste collection vehicles in his active fleet subject to compliance with this regulation.

(1) Records Accessible at Terminal. The owner shall keep the following records accessible either in hard copy format or computer records at the terminal where a solid waste collection vehicle normally resides:

(A) A list by vehicle license or identification number of solid waste collection vehicles identifying each vehicle type, engine manufacturer, engine model, engine model year, usage status as active fleet or back-up vehicle, and

(B) Correlated to each solid waste collection 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, reason for the choice, 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, the most recent two years worth of records of purchase that demonstrate usage, and

(E) For each backup vehicle, its vehicle license or identification number and mileage as of January 1st of each year beginning January 1, 2005, and

(F) For each engine for which an owner is claiming an exemption pursuant to paragraph (e)(4), the vehicle license or identification number, engine manufacturer, engine model, engine model year, and retirement date, and

(G) For each engine for which an owner is claiming an extension pursuant to paragraph (e)(5), the vehicle license or identification number, engine model, engine model year, and documentation of the experimental program.

(2) **Records Kept in the Vehicle.** For each solid waste collection vehicle, the owner 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 a vehicle operated under contract to a municipality, the name of the municipality or municipalities, and

(B) 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

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

(D) Experimental diesel emission control system manufacturer name, type of experimental diesel emission control system, beginning date and ending date of testing and evaluation period, or

(E) Designation as a backup vehicle and its mileage as of January 1st of each year beginning January 1, 2005, or

(F) Engine model year and retirement date for vehicles for which an owner is claiming an exemption pursuant to paragraph (e)(4), or

(G) Engine model year and duration of experimental program for each vehicle for which an owner is claiming an extension pursuant to paragraph (e)(5).

(3) Each owner shall maintain records for each solid waste collection vehicle until it is sold outside of the State of California or is no longer used as a solid waste collection vehicle for the purpose of residential or commercial solid waste collection in the State of California.

(g) **Non Compliance.** Any violations of this section may carry civil penalties as specified in state law and regulations, including, but not limited to, Health and Safety Code section 39674.

NOTE: Authority cited: Sections 39600, 39601, and 39658, Health and Safety Code. Reference: Sections 39002, 39003, 39658, 43000, 43013, 43018, 43101, 43102, 43104, 43105 and 43700.