

# **DRAFT for Discussion Purposes Only - Do Not Cite or Quote**

## **AIRBORNE TOXIC CONTROL MEASURE FOR MOBILE CARGO HANDLING EQUIPMENT AT PORTS AND INTERMODAL RAIL YARDS**

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Adopt new section 2479, title 13, California Code of Regulations, to read as follows:  
(Note: The entire text of section 2479 set forth below is new language proposed to be added to the California Code of Regulations.)

### **Section 2479. Airborne Toxic Control Measure for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards.**

#### **(a) Purpose**

The purpose of this regulation is to reduce diesel particulate matter (PM) and criteria pollutant emissions from compression ignition (CI) mobile cargo handling equipment that operate at ports and intermodal rail yards in the state of California.

#### **(b) Applicability**

Except as provided in subsection (c), the regulation would apply to any person who sells, offers for sale, leases, purchases, owns or operates any CI mobile cargo handling equipment that operates at a port or intermodal rail yard in the state of California.

#### **(c) Exemptions**

- (1) The requirements of this section do not apply to mobile cargo handling equipment that do not operate at a port or intermodal rail yard;
- (2) The requirements of this section do not apply to portable CI engines.

#### **(d) Definitions**

For purposes of this section, the definitions of Health and Safety Code section 39010 through 39060 shall apply except to extent that such definitions may be modified by the following definitions that apply specifically to this ATCM and regulation:

- (1) "Alternative Diesel Fuel" means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include but are not limited to

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biodiesel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:

- (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or
  - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
  - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (2) "Alternative Fuel" means natural gas, propane, ethanol, methanol, gasoline (when used in hybrid electric mobile cargo handling equipment only), hydrogen, electricity, fuel cells, or advanced technologies that do not rely on diesel fuel. "Alternative fuel" also means any of these fuels used in combination with each other or in combination with other non-diesel fuel.
- (3) "Basic Container Handling Equipment" means all mobile cargo handling equipment, other than yard trucks, used to handle cargo containers and include but are not limited to top handlers, side handlers, reach stackers, straddle carriers, and forklifts.
- (4) "Bulk Cargo Handling Equipment" means mobile cargo handling equipment generally used to move non-containerized cargo, including but not limited to dozers, excavators, loaders, tractors, mobile cranes (excluding rubber-tired gantry cranes), and sweepers.
- (5) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (6) "Cargo Handling Equipment" means any off-road self-propelled vehicle or equipment used to lift or move container, bulk, or liquid cargo carried by ship, train, or another vehicle, within a port or intermodal rail yard. Equipment includes but is not limited to mobile cranes, yard trucks, top handlers, side handlers, reach stackers, forklifts, loaders, sweepers, excavators, and dozers.
- (7) "Certified Off-road Diesel Engine" means an engine certified to California off-road engine emission standards under title 13 CCR, section 2423.
- (8) "Certified Onroad Diesel Engine" means an engine certified to California onroad diesel engine emission standards under title 13 CCR, section 1956.8.
- (9) "Compression Ignition (CI) Engine" means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.

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- (10) "Diesel Fuel" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons (HC) - organic compounds consisting exclusively of the elements carbon and hydrogen - that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.
- (11) "Diesel-Fueled" means a CI engine fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (12) "Diesel Oxidation Catalyst (DOC)" means a catalyst promoting oxidation processes in diesel exhaust, and usually designed to reduce emissions of the organic fraction of diesel particulates, gas-phase HC, and (CO).
- (13) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (14) "Diesel Particulate Matter (PM)" means the particles found in the exhaust of diesel-fueled CI engines. Diesel PM may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (15) "Dozer" means an off-road tractor, either tracked or wheeled, equipped with a blade.
- (16) "Emission Control Strategy" means any device, system, or strategy employed with a diesel-fueled CI engine that is intended to reduce emissions including, but not limited to, particulate filters, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives used in combination with particulate filters, alternative diesel fuels, and any combination of the above.
- (17) "Excavator" means an off-road vehicle consisting of a backhoe and cab mounted on a pivot atop an undercarriage with tracks or wheels.
- (18) "Executive Officer" means the Executive Officer of the California Air Resources Board or his/her designee.
- (19) "Fleet" means the total number of mobile cargo handling equipment vehicles owned, rented or leased by an owner or operator at one terminal or intermodal yard location.
- (20) "Forklift" means an off-road industrial truck used to hoist and transport materials by means of steel fork(s) under the load.

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- (21) "Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.
- (22) "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 any energy equivalent basis. An engine that can operate or idle solely on diesel fuel at any time does not meet this definition.
- (23) "Hydrocarbon (HC)" means the sum of all hydrocarbon air pollutants.
- (24) "In-Use" means a CI engine that is not a "new" CI engine.
- (25) "Intermodal Rail Yard" means any rail facility where cargo is transferred to or from a train or any other form of conveyance, such as train to ship, ship to train, train to truck, or truck to train.
- (26) "Level" means one of three categories of Air Resources Board-verified diesel emission control strategies as set forth in title 13, CCR, section 2701 et seq: 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 reduces engine emissions to less than or equal to 0.01 grams diesel particulate matter per brake horsepower-hour.
- (27) "Loader" means any type of off-road tractor with either tracks or rubber tires that uses a bucket on the end of movable arms to lift and move material; can be also referred to as a front-end loader, front loader, skid steer loader, backhoe, rubber-tired loader, or wheeled loader.
- (28) "Mobile Crane" means the propulsion engine of a crane other than a rubber-tired gantry crane.
- (29) "Model Year" means the CI engine manufacturer's annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.
- (30) "Newly Purchased Rented, or Leased Cargo Handling Equipment" means mobile cargo handling equipment, or a diesel-fueled CI engine installed in mobile cargo handling equipment, that is newly purchased, rented, or leased on or after

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January 1, 2007, and is operated at a port or intermodal rail yard in the state of California after January 1, 2007.

- (31) “Nitrogen Oxides (NO<sub>x</sub>)” means compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (32) “Non-Methane Hydrocarbons (NMHC)” means the sum of all HC air pollutants except methane.
- (33) “Non-Yard Truck Mobile Cargo Handling Equipment” means all other mobile cargo handling equipment, not including yard trucks.
- (34) “Off-Road Engine” means an engine used in an off-road vehicle or piece of equipment, including a certified onroad diesel engine emission standard.
- (35) “Off-Road Vehicle or Equipment” means any non-stationary device, powered by an internal combustion engine or motor, used primarily off the highways to propel, move, or transport persons or property.
- (36) “Owner or Operator” means any person subject to the requirements of this section, including but not limited to:
  - (A) an individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including but not limited to, a government corporation; and
  - (B) any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law.
- (37) “Particulate Matter (PM)” means the particles found in the exhaust of CI engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (38) “Portable CI Engine” means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another. Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. . Portable engines are not self-propelled.
- (39) “Port” means facilities used for water-borne commerce.

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- (40) "Railcar Mover" means an off-road vehicle fitted with rail couplers and capable of traveling on both roads and rail tracks.
- (41) "Reach Stacker" means an off-road truck-like cargo container handler that uses an overhead telescopic boom that can reach across two or more stacks of cargo containers and lift the containers from the top.
- (42) "Registered Motor Vehicle" means a yard truck or other cargo handling vehicle that is registered as a motor vehicle under Vehicle Code section 4000, et seq.
- (43) "Retirement" or "Retire" means an engine or vehicle will be withdrawn from an active fleet in California. The engine may be sold outside of California, scrapped, or used in a backup vehicle.
- (44) "Rubber-tired Gantry Crane or RTG Crane" means an off-road overhead cargo container crane with the lifting mechanism mounted on a cross-beam supported on vertical legs which run on rubber tires.
- (45) "Side Handler or Side Pick" means an off-road truck-like cargo container handler that uses an overhead telescopic boom to lift empty or loaded cargo containers by grabbing either two top corners on the longest side of a container, both arms of one side of a container, or both top and bottom sides of a container; also referred to as "side pick."
- (46) "Sweeper" means an off-road vehicle with attached brushes underneath that sweep the ground and pick up dirt and debris.
- (47) "Top Handler or Top Pick" means an off-road truck-like cargo container handler that uses an overhead telescopic boom to lift empty or loaded cargo containers by grabbing the top of the containers; also referred to as "top pick."
- (48) "Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)" means the Air Resources Board (ARB) regulatory procedure codified in title 13, CCR, sections 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM or NOx from in-use diesel engines using a particular emission control strategy.
- (49) "Verified Diesel Emission Control Strategy (VDECS)" means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant 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.

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- (50) "Yard truck" means an off-road mobile utility vehicle used to carry cargo containers with or without chassis; also known as utility tractor rig (UTR), yard tractor, yard goat, yard hostler, yard hustler, or prime mover.

### **(e) Requirements**

#### **(1) New Equipment Performance Standards:**

- (A) As of January 1, 2007, except as provided for in subsection (c), no owner or operator shall purchase, rent, or lease vehicles or equipment unless they meet the following:

1. Mobile cargo handling equipment that are registered motor vehicles shall be equipped with engines that have been certified to meet the 2007 or current model year onroad emission standards as specified in title 13, California Code of Regulations, section 1956.8.
2. Mobile cargo handling equipment that are *not* registered motor vehicles:
  - a. shall be equipped with engines that have been certified to meet the 2007 or current model year onroad emission standards as specified in title 13, California Code of Regulations, section 1956.8 or engines that have been certified to meet the Tier 4 off-road diesel engine requirements as specified in title 13, California Code of Regulations, section 2423 for the model year and rated horsepower; or
  - b. if (a) above is not available for the specific application and equipment type, the cargo handling equipment shall be equipped with engines that have been certified to meet the highest available level off-road diesel engine requirements as specified in title 13, California Code of Regulations, section 2423 for the current model year and rated horsepower, provided the owner or operator installs the highest level VDECS available.

#### **(2) In-Use Performance Standards for Yard Trucks**

- (A) In accordance with the schedule set forth below in paragraph (e)(2)(B), no owner or operator shall operate an in-use off-road yard truck at a port or intermodal rail yard unless it meets the performance standards set forth below:

1. engine certified to 2007 or later onroad emission standards as specified in title 13, California Code of Regulations, section 1956.8; or
2. engine certified to Tier 4 off-road standards as specified in title 13, California Code of Regulations, section 2423, when effective.

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### (B) Compliance Schedules for In-Use Yard Trucks

1. All owners or operators of three or fewer yard trucks shall comply with subsection (e)(2) according to the schedule in Table 1:

**Table 1: Compliance Schedule for In-Use Yard Truck Fleets of Three or Less**

Engine Certification	Model Years	VDECS as of December 31, 2006	Compliance Deadline
Off-road	Pre-2003	None	December 31, 2007
Off-road	Pre-2003	Any Level	December 31, 2008
Off-road	2003-2006	None	Model Year + 7 Years
Off-road	2003-2006	Any Level	Model Year + 8 Years
Onroad	Pre-2007	None	Model Year + 8 Years
Onroad	Pre-2007	Any Level	Model Year + 9 Years

2. All owners or operators of four or more yard trucks shall comply with subsection (e)(2) according to the schedule in Table 2:

**Table 2: Compliance Schedule for In-Use Yard Truck Fleets of Four or More**

Engine Certification	Model Years	VDECS	Number of Yard Trucks for Each Model Year Group	Compliance Deadline
Off-road	Pre-2003	None	The greater of 3 or 50%	December 31, 2007
			100%	December 31, 2008
Off-road	Pre-2003	Any Level	The greater of 3 or 50%	December 31, 2008
			100%	December 31, 2009
Off-road	2003-2006	None	The greater of 3 or 25%	Model Year + 7 Years
			50%	Model Year + 8 Years
			100%	Model Year + 9 Years
Off-road	2003-2006	Any Level	The greater of 3 or 25%	Model Year + 8 Years
			50%	Model Year + 9 Years
			100%	Model Year + 10 Years
Onroad	Pre-2007	None	The greater of 3 or 25%	Model Year + 8 Years
			50%	Model Year + 9 Years
			100%	Model Year + 10 Years
Onroad	Pre-2007	Any Level	The greater of 3 or 25%	Model Year + 9 Years
			50%	Model Year + 10 Years
			100%	Model Year + 11 Years



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### **(3) In-Use Performance Standards for Non-Yard Truck Mobile Cargo Handling Equipment**

- (A) In accordance with the schedule set forth in subsection (e)(3)(C), no owner or operator shall operate non-yard truck mobile cargo handling equipment unless they meet all of the following:
1. Use of a Compliance Option for each vehicle or equipment in the active fleet as specified in paragraph (e)(3)(B) per the compliance schedule listed in Table 3; and
  2. Adherence to any special circumstances that may apply when a diesel emission control strategy is used as a Compliance Option as specified in subsection (g); and
  3. Maintenance of all records as specified in subsection (h); and
  4. Continuous Compliance. An owner or operator is required to keep all mobile cargo handling equipment in compliance with this regulation, once it is in compliance, so long as the owner or operator is operating the vehicle in California.
- (B) Compliance Option. Each owner or operator shall use one of the following Compliance Options on each engine or vehicle in his fleet as required by the implementation schedule in subsection (e)(3)(C):
1. Basic Container Handling Equipment:
    - a. An engine or power system certified to the optional 0.01 g/bhp-hr particulate emission standard as specified in title 13, CCR, section 1956.8, or the Tier 4 particulate emission standard as specified in title 13, California Code of Regulations, section 2423 (when effective); or
    - b. An engine or power system certified to the 0.1 g/bhp-hr particulate emission standard, as specified in title 13, CCR, section 1956.8, or certified to the Tier 2 or Tier 3 off-road diesel engine standard, as specified in title 13, CCR, section 2423, and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, section 2700 et seq., 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 without jeopardizing the original engine warranty in effect at the time of application. If the highest level diesel emission control strategy used is Level 1, the engine or power system must be

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certified to the Tier 4 off-road diesel engine standards, as specified in title 13, CCR, section 2423, or apply a Level 3 VDECS by December 31, 2015 ; or

- c. An engine or power system certified to the Tier 0 or Tier 1 off-road diesel engine standard, as specified in title 13, CCR, section 2423, and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, section 2700 et seq., 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 without jeopardizing the original engine warranty in effect at the time of application. If the highest level diesel emission control strategy used is Level 1 or Level 2, the engine or power system must be certified to the Tier 4 off-road diesel engine standards, as specified in title 13, CCR, section 2423 or apply a Level 3 VDECS by December 31, 2015; or
  - d. An alternative fuel or heavy-duty pilot ignition engine.
2. Bulk Cargo Handling Equipment:
- a. An engine or power system certified to the optional 0.01 g/bhp-hr particulate emission standard as specified in title 13, CCR, section 1956.8, or the Tier 4 particulate emission standard as specified in title 13, CCR, section 2423 (when effective); or
  - b. An engine or power system certified to the 0.1 g/bhp-hr particulate emission standard, as specified in title 13, CCR, section 1956.8, or certified to the Tier 2 or Tier 3 off-road diesel engine standard, as specified in title 13, CCR, section 2423, and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, section 2700 et seq., 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 without jeopardizing the original engine warranty in effect at the time of application. If the highest level diesel emission control strategy used is Level 1, the engine or power system must be certified to the Tier 4 off-road diesel engine standards, as specified in title 13, CCR, section 2423 or apply a Level 3 VDECS by December 31, 2015; or
  - c. An engine or power system certified to the Tier 0 or Tier 1 off-road diesel engine standard, as specified in title 13, CCR, section 2423, and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, section 2700 et seq., that is verified for a

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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 without jeopardizing the original engine warranty in effect at the time of application. If the highest level diesel emission control strategy used is Level 1, the engine or power system must be certified to the Tier 4 off-road diesel engine standards, as specified in title 13, CCR, section 2423 or apply a Level 3 VDECS by December 31, 2015; or

d. An alternative fuel or heavy-duty pilot ignition engine.

### 3. Rubber-Tired Gantry Cranes:

a. An engine or power system certified to the optional 0.01 g/bhp-hr particulate emission standard as specified in title 13, CCR, section 1956.8, or the Tier 4 particulate emission standard as specified in title 13, CCR, section 2423 (when effective); or

b. An engine or power system certified to the Tier 2 or Tier 3 off-road diesel engine standard, as specified in title 13, CCR, section 2423 (when effective), and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, section 2700 et seq., 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 without jeopardizing the original engine warranty in effect at the time of application; or

c. An engine or power system certified to the Tier 0 or Tier 1 off-road diesel engine standard, as specified in title 13, CCR, section 2423, and used in conjunction with the highest level diesel emission control strategy per title 13, CCR, 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 without jeopardizing the original engine warranty in effect at the time of application. If the highest level diesel emission control strategy used is Level 1 or Level 2, the engine or power system must be certified to the Tier 4 off-road diesel engine standards, as specified in title 13, California Code of Regulations, section 2423 or apply a Level 3 VDECS by December 31, 2015; or

d. An alternative fuel or heavy-duty pilot ignition engine.

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(C) Compliance Schedule for Non-Yard Truck Mobile Cargo Handling Equipment

1. All owners or operators of non-yard truck mobile cargo handling equipment shall comply with subsection (e)(3) according to the schedule in Table 3:

**Table 3: Compliance Option Compliance Schedule for Non-Yard Truck In-Use Mobile Cargo Handling Equipment**

Engine Model Years	Compliance Date*				
	Non-Yard Truck Fleets of 3 or Fewer	Non-Yard Truck Fleets of 4 or More			
		First 3 or 25% (whichever is greater)	50%	75%	100%
pre-1988	2007	2007	2008	2009	2010
1988-1995	2008	2008	2009	2010	2011
1996-2002	2009	2009	2010	2011	2012
2003-2006	2010	2010	2011	2012	2013

\* Compliance date refers to December 31<sup>st</sup> of the year indicated.

### (f) Compliance Extensions

An owner or operator may be granted an extension to a compliance deadline specified in subsection (e) for one of the following reasons. If a compliance extension is granted by the Executive Officer, the owner or operator shall be deemed to be in compliance as specified by the Executive Officer's authorization.

- (1) Compliance Extension for Yard Trucks Having VDECS with Minimum Use Requirements. If VDECS were installed on a yard truck prior to December 31, 2005, and the minimum use requirements of the VDECS is later than the compliance date as specified in subsection (e)(2)(B), compliance may be extended to the earliest minimum use requirement end date or VDECS warranty period, whichever is earlier, when:
  - (A) The VDECS was/were installed using Carl Moyer Program funding and is required to be active for a minimum of five years, or
  - (B) The VDECS were installed under written agreement with the Ports of Long Beach, Los Angeles, or Oakland to use the VDECS for a minimum of five years or minimum total operating hours specified in the written agreement.
- (2) Compliance Extension for an Engine Near Retirement. If an owner or operator has applied a Compliance Option to its fleet pursuant to the schedule set forth in Table 3 of section (e), and the next engine subject to the Compliance Options is

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scheduled to be retired from the active fleet within one year of the applicable compliance deadline, the owner or operator is exempt from applying a Compliance Option to that engine for up to one year, provided the owner or operator maintains appropriate records and documentation, as specified in subparagraph (h)(1)(F), regarding the assigned retirement date and the engine is retired on or before the assigned date. If upon inspection the ARB finds the aforementioned conditions not to have been met, the engine would be in noncompliance from the date that compliance was otherwise required under the schedule set forth in Table 3 of section (e).

- (3) Compliance Extension based on No Verified Diesel Emission Control Strategy for Non-Yard Truck Mobile cargo handling equipment. If the Executive Officer has not verified a diesel emission control strategy or one is not commercially available for a particular engine and equipment combination, an annual extension in compliance, up to a maximum of two years, may be granted by the Executive Officer. An extension may be granted upon the following circumstances:
- (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 subsection (e)(3)(C).
  - (B) Owner or Operator Application Compliance Extension. An owner or operator may apply to the Executive Officer for a compliance extension for an engine six months prior to each compliance deadline specified in subsection (e)(3)(C). The Executive Officer shall grant an owner or operator a one-year extension upon determining that the owner or operator has provided sufficient documentation to meet the conditions set forth below. The owner or operator may, six-months prior to the expiration of the extension, apply for an additional one-year extension. In such a case, the owner or operator shall once again be required to show to the Executive Officer's satisfaction that the conditions set forth below have been met:
    - 1. The owner or operator must establish that it has applied a Compliance Option specified in subsection (e)(3) to all applicable engines in its fleet for which a Compliance Option is feasible pursuant to the schedule set forth in Table 3 of section (e).
    - 2. Identification of each engine for which an extension is requested by engine serial number; engine manufacturer, model year, family, and series; and type of mobile cargo handling equipment, for which a specific diesel emission control strategy would jeopardize the original engine warranty and a statement from the engine manufacturer or authorized dealer stating the original engine warranty would be jeopardized, or

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3. Identification of each engine and equipment or vehicle combination for which an extension is requested by engine serial number; engine manufacturer, model year, family, and series; and type of mobile cargo handling equipment, 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, and
  4. A description of the reason(s) for the request for a compliance extension for each engine or engine and equipment or vehicle combination, and
- (4) Use of Experimental Diesel Particulate Matter Emission Control Strategies. Up to a two-year compliance extension may be granted by the Executive Officer for the use of an experimental diesel particulate matter emission control strategy for testing and evaluation purposes. The owner or operator shall keep documentation of this use in records as specified in paragraph (h)(1)(G). Each mobile cargo handling equipment engine will be considered to be in compliance for the duration of the experiment, or a maximum of two years. The owner or operator must bring the mobile cargo handling equipment into compliance within six months of the end of the testing and evaluation period. The Executive Officer shall grant an exemption upon determining that the owner or operator has met the conditions specified below:
- (A) no emission control system has been verified for an engine ten months prior to the compliance deadline set forth for that engine;
  - (B) the engine owner or operator has applied to the Executive Officer for a compliance extension six months prior to each compliance deadline;
  - (C) the application for extension includes the following: identification of each engine (serial number, engine manufacturer, model year, family, and series), description of the emission control system to be demonstrated, the contact information for the emission control system supplier, letter of intent from the supplier that they intend to apply for verification of the experimental system;
  - (D) the owner or operator must bring the mobile cargo handling equipment into compliance within six months of the end of the compliance extension period; and
  - (E) no experimental diesel particulate matter emission control strategy may be used on mobile cargo handling equipment after December 31, 2012.

### **(g) Diesel Emission Control Strategy Special Circumstances**

An owner or operator shall maintain the original level of Compliance Option on each engine once that engine is in compliance, and is not required to upgrade to a higher level of Compliance Option, except under specified special circumstances, as follows:

- (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:

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- (A) Failure or Damage during the 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 cannot be repaired, the owner or operator shall replace the diesel emission control strategy with either the same level diesel emission control strategy or another approved Compliance Option as defined in subsection (e)(3).
- (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 or operator shall apply a Compliance Option at the time of replacement, as defined in subsection (e)(3).

### **(h) Record Keeping Requirements**

Beginning December 31, 2006, an owner or operator shall maintain the following records. The owner or operator shall provide the following records to an agent or employee of ARB upon request for all mobile cargo handling equipment subject to compliance with the regulation:

- (1) Records Kept at Terminal. The owner or operator shall keep the following records accessible either in hard copy format or computer records at the terminal where the mobile cargo handling equipment normally resides:
  - (A) Owner or Operator Contact Information
    1. Company name
    2. Contact name, phone number, address, e-mail address
    3. Address of equipment
  - (B) Equipment and Engine Information
    1. Make of equipment and engine
    2. Model of equipment and engine
    3. Engine family
    4. Engine serial number
    5. Year of manufacture of equipment and engine (if unable to determine, approximate age)
    6. Rated brake horsepower
    7. Engine emission factors and supporting data for PM, NO<sub>x</sub> and NMHC separately or NMHC+NO<sub>x</sub>, and CO, (if available) from manufacturer's data, source tests, or other sources (specify)
    8. Control equipment (if applicable)
      - a. Type of diesel emission control strategy
      - b. Serial number of installed diesel emission control strategy
      - c. Manufacturer of installed diesel emission control strategy
      - d. Model of installed diesel emission control strategy
      - e. Installation date of installed diesel emission control strategy

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- f. Level of control (1, 2, or 3); if using a Level 1 or 2, include the reason for the choice
  - g. Documentation of minimum use requirements, if applicable
- (C) Records of maintenance for each installed diesel emission control strategy
- (D) Fuel(s) Used
  - 1. CARB Diesel
  - 2. Ultra-low sulfur (15 ppm) diesel
  - 3. Alternative diesel fuel (specify)
  - 4. Alternative fuel (specify)
  - 5. Combination (dual fuel) (specify)
  - 6. Other (specify)
- (E) Operation Information
  - 1. Describe general use of engine
  - 2. Typical load (percent of maximum bhp rating)
  - 3. Typical annual hours of operation
  - 4. If seasonal, months of year operated and typical hours per month operated
- (F) For each engine for which an owner or operator is claiming an exemption pursuant to paragraph (f)(2), the retirement date correlated to the information in paragraph (h)(1) above
- (G) For each engine for which an owner or operator is claiming an extension pursuant to paragraph (f)(4), the records of the test plan, including start and end dates of the experiment; diesel particulate matter emission control strategy manufacturer name and contact information (representative, address, and phone number); name and type of experimental diesel particulate matter emission control strategy; and targeted data to be generated by experiment, correlated to the information in paragraph (h)(1) above
- (H) A statement of compliance, prepared beginning January 1, 2007, and renewed each January 1 thereafter until January 1, 2016, certifying that the owner's or operator's engines are in compliance as required, including the following:
  - 1. "The mobile cargo handling equipment at terminal (insert terminal name and name of port or intermodal rail yard) are in compliance with title 13, California Code of Regulations, section 2479;" and
  - 2. The owner's or operator's name, business address, business telephone; and
  - 3. The signature of the owner or operator or its agent and date signed.



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- (2) Records Kept in Mobile Cargo Handling Equipment. For each mobile cargo handling equipment, the owner or operator shall keep the following information affixed to the driver's side door jamb, or another readily accessible location known by the driver of each mobile cargo handling equipment, in the form of a legible and durable label:
  - (A) For each installed diesel emission control strategy, label information as specified in title 13, CCR, section 2706(g), and the installation date; or
  - (B) For each mobile cargo handling equipment that has installed a certified onroad or off-road engine in order to comply with section (e), the engine make, model, and installation date; or
  - (C) Engine model year and planned compliance date; or
  - (D) Engine model year and retirement date for an engine for which an owner or operator is claiming an exemption pursuant to paragraph (f)(2); or
  - (E) Engine model year and beginning and ending date of the test plan for an engine for which an owner or operator is claiming an extension pursuant to paragraph (f)(4).
- (3) Each owner or operator shall maintain these records for each mobile cargo handling equipment until it is sold outside of the State of California or is no longer used at a port or intermodal rail yard in the State of California. If ownership is transferred, the seller shall convey the records to the buyer.

### **(i) Reporting Requirements**

- (1) Compliance Plan. By January 31, 2007, each owner or operator of in-use mobile cargo handling equipment shall provide the following information to the Executive Officer:
  - (A) Information listed in paragraph (h)(1), and
  - (B) An identification of the planned control strategy (Compliance Plan) for each mobile cargo handling equipment listed in paragraph (h)(1) that, when implemented, will result in compliance with subsection (e). If applicable, the information should include the Executive Order number issued by the Executive Officer for a Diesel Emission Control Strategy that has been approved by the Executive Officer through the Verification Procedure. The Compliance Plan is not binding and can be changed by the owner or operator prior to the required compliance date(s).
- (2) Demonstration of Compliance. By no later than the earliest applicable compliance date specified in subsections (e)(2)(B) or (e)(3)(C), the owner or operator of an in-use mobile cargo handling equipment subject to the requirements of subsection (e) shall provide the following information to the Executive Officer:

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- (A) Information listed in (h)(1), and
  - (B) An identification of the control strategy implemented for each mobile cargo handling equipment in accordance with the requirements of subsection (e) for purposes of demonstrating compliance.
- (3) Annual Reporting. Each terminal owner or operator shall submit an annual report to the Executive Officer by January 31, 2007, and by each January 31 annually, through 2016 as described below:
- (A) Company name;
  - (B) Contact name, phone number, address, e-mail address; and
  - (C) Address of equipment, including name of port or intermodal rail yard where equipment is operated.

### **(i) Prohibitions**

No person who is engaged in this State in the business of selling to an ultimate purchaser, or renting or leasing new or used mobile cargo handling equipment, including, but not limited to, manufacturers, distributors, and dealers, shall sell, offer for sell, import, deliver, purchase, receive, or otherwise acquire a new or used mobile cargo handling equipment for the purpose of selling, renting, or leasing, that does not meet the performance requirements of this regulation.

### **(j) Severability**

If any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of this regulation is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the regulation.

NOTE: Authority cited: sections 39600, 39601, 39618, 39658, 39659, 39666, 39667, 39674, 39675, 42400 et seq., 42402 et seq., 42410, 43013, 43018, California Health and Safety Code. Reference: sections 39618, 39650, 39658, 39659, 39666, 39667, 39674, 39675, 42400 et seq., 42402 et seq., 42410, 40717.9, 43013, and 43018.