

FINAL REGULATION ORDER
REGULATION FOR MOBILE CARGO HANDLING EQUIPMENT
AT PORTS AND INTERMODAL RAIL YARDS

Note: Amendments, effective December 3, 2009, are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions, compared to the preexisting regulatory language. The symbol “*****” indicates that regulatory text not being amended is not shown.

Amend section 2479, title 13, California Code of Regulations.

Section 2479. Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards.

(a) Purpose

(b) Applicability

(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;
- (3) The requirements of subsections (e), (f), (g), (h), and (i) do not apply to mobile cargo handling equipment that are not used to handle cargo at any time but are used for transporting personnel or fuel delivery. Examples include, but are not limited to, fuel delivery trucks operating solely at the terminal to deliver fuel to terminal equipment and vans and buses used to transport personnel; ~~and~~
- (4) The requirements of this section do not apply to military tactical support cargo handling equipment; ~~;~~
- (5) The requirements of this section do not apply to mobile cranes as defined in subsection (d)(33); and
- (6) The requirements of this section do not apply to sweepers as defined in subsection (d)(54).

(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 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, biodiesel that does not meet the definition of CARB diesel fuel; 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 mobile cargo handling equipment, other than yard trucks, bulk cargo handling equipment, and RTG cranes, used to handle cargo containers. Basic Container Handling Equipment includes but is not limited to top handlers, side handlers, reach stackers, straddle carriers, and forklifts.
- (4) “Bulk Cargo Handling Equipment” means mobile cargo handling equipment, other than yard trucks, basic container handling equipment, and RTG cranes, generally used to move non-containerized cargo, including but not limited to dozers, excavators, loaders, tractors, ~~mobile cranes (excluding rubber-tired gantry cranes), and~~ aerial lifts, and sweepers.

- (5) "California Air Resources Board (CARB) Diesel Fuel" means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in title 13 CCR, sections 2281, 2282, and 2284.
- (6) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (7) "Cargo Handling Equipment" means any off-road, self-propelled vehicle or equipment used at a port or intermodal rail yard to lift or move container, bulk, or liquid cargo carried by ship, train, or another vehicle, or used to perform maintenance and repair activities that are routinely scheduled or that are due to predictable process upsets. Equipment includes, but is not limited to, ~~mobile cranes~~, rubber-tired gantry cranes, yard trucks, top handlers, side handlers, reach stackers, forklifts, loaders, ~~sweepers~~, aerial lifts, excavators, and dozers.
- (8) "Certified Off-road Diesel Engine" means an engine certified to California off-road engine emission standards under title 13 CCR, section 2423.
- (9) "Certified On-road Diesel Engine" means an engine certified to California on-road diesel engine emission standards under title 13 CCR, section 1956.8.
- (10) "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.
- (11) "Contiguous Properties" means two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.
- (12) "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.
- (13) "Diesel-Fueled" means a CI engine fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (14) "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.
- (15) "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.

- (16) “Diesel Particulate Matter (Diesel 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.
- (17) “Dozer” means an off-road tractor, either tracked or wheeled, equipped with a blade.
- (18) “Emission Control Strategy” means any device, system, or strategy employed with a diesel engine that is intended to reduce emissions, including, but not limited to, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives, diesel particulate filters, alternative diesel fuels, water emulsified fuels, and any combination of the above.
- (19) “Excavator” means an off-road vehicle consisting of a backhoe and cab mounted on a pivot atop an undercarriage with tracks or wheels.
- (20) “Executive Officer” means the Executive Officer of the California Air Resources Board or his/her designee.
- (21) “Fleet” means the total number of mobile cargo handling equipment vehicles owned, rented, or leased by an owner or operator at a specific terminal or intermodal yard location.
- (22) “Forklift” means an off-road industrial truck used to hoist and transport materials by means of steel fork(s) under the load.
- (23) “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.
- (24) “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.
- (25) “Hydrocarbon (HC)” means the sum of all hydrocarbon air pollutants.
- (26) “In-Use” means a CI engine that is not a “new” CI engine.
- (27) “Intermodal Rail Yard” means any transportation facility primarily dedicated to the business of rail and/or intermodal rail operations where cargo is transferred to or

from a train and any other form of conveyance, such as train to ship, ship to train, train to truck, or truck to train.

- (28) "Lease" means a contract by which one conveys cargo handling equipment for a specified term and for a specified rent.
- (29) "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 PM per brake horsepower-hour.
- (30) "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.
- (31) "Military Tactical Support Cargo Handling Equipment" means cargo handling equipment that meets military specifications, owned by the U.S. Department of Defense and/or the U.S. military services, and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.
- (32) "Minimum Use Requirement" means an agreement, as part of state or local incentive funding programs or written agreement between mobile cargo handling equipment owners or operators and the Ports of Long Beach, Los Angeles, or Oakland, to use an emission control device on mobile cargo handling equipment for a specified minimum number of years and/or hours.
- (33) "Mobile Crane" means ~~the propulsion engine of a mobile machine, crane~~ other than a rubber-tired gantry crane, with a hoisting mechanism mounted on a specially constructed truck chassis or carrier; a mobile crane can either be a single-engine crane or a two-engine crane.
- (34) "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.
- (35) "Newly Purchased, Leased, or Rented 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 by an owner or operator on or after January 1, 2007, and is operated at a port or intermodal rail yard in the state of California after January 1, 2007.

- (36) "Nitrogen Oxides (NO_x)" means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (37) "Non-Methane Hydrocarbons (NMHC)" means the sum of all HC air pollutants except methane.
- (38) "Non-Yard Truck Mobile Cargo Handling Equipment" means all mobile cargo handling equipment other than yard trucks.
- (39) "Ocean-going Vessel" means a commercial, government, or military vessel meeting any one of the following criteria:
- (A) a vessel with a "registry" (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or a vessel that is registered under the flag of a country other than the United States;
 - (B) a vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
 - (C) a vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined in 46 CFR 69.51-.61, as adopted September 12, 1989; or
 - (D) a vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.
- (40) "Off-Road Engine" means an engine used in an off-road vehicle, or piece of equipment, including a certified on-road diesel engine.
- (41) "Off-Road Vehicle or Equipment" means any non-stationary device, including registered motor vehicles, powered by an internal combustion engine or motor, used primarily off the highways to propel, move, or transport persons or property.
- (42) "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.
- (43) "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.

- (44) “Port” means a place, which typically consists of different terminals, where cargo is loaded onto and unloaded from ocean-going vessels primarily. A port includes military terminals that operate cargo handling equipment when located as part of, or on contiguous properties with, non-military terminals.
- (45) “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.
- (46) “Purchased” means the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.
- (47) “Railcar Mover” means an off-road vehicle fitted with rail couplers and capable of traveling on both roads and rail tracks.
- (48) “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.
- (49) “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.
- (50) “Rent” means payment for the use of mobile cargo handling equipment for a specified term.
- (51) “Retirement” or “Retire” means an engine or vehicle that will be taken out of service by an owner or operator and will not be operated at a port or intermodal rail yard in the State of California. The engine may be sold outside of California or scrapped.
- (52) “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.
- (53) “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.
- (54) “Sweeper” means an off-road vehicle with attached brushes underneath that sweep the ground and pick up dirt and debris.

- (55) “Terminal” means a facility, including one owned or operated by the Department of Defense or the U.S. military services, that operates cargo handling equipment at a port or intermodal rail yard.
- (56) “Tier 4 Off-road Emission Standards” means the emission standards promulgated by the United States Environmental Protection Agency in "Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel; Final Rule" (Vol. 69, No. 124 Fed. Reg. pp. 38957-39273, June 29, 2004) which harmonize with the final amended emission standards for newly manufactured off-road engines approved by the Air Resources Board on December 12, 2004.
- (57) “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.
- (58) “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 and/or NOx from in-use diesel engines using a particular emission control strategy.
- (59) “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.
- (60) “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

(f) Compliance Extensions

(g) Diesel Emission Control Strategy Special Circumstances

(h) Alternative Compliance Plan for Non-Yard Truck Cargo Handling Equipment

(i) Recordkeeping Requirements

(j) Reporting Requirements

(k) Right of Entry

(l) Prohibitions

(m) Severability

(n) Submittal of Documents

NOTE: Authority cited: sections 39600, 39601, 39618, 39658, 39659, 39667, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3, 42400.3.5, 42400.6, 42402, 42402.1, 42402.2, 42402.3, 42402.4, 42410, 43013, 43018, California Health and Safety Code. Reference: sections 39618, 39650, 39658, 39659, 39667, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3, 42400.3.5, 42400.6, 42402, 42402.1, 42402.2, 42402.3, 42402.4, 42410, 43013, and 43018. Health and Safety Code.