

California Environmental Regulations Affecting Truck Operations

REGULATIONS CURRENTLY BEING ENFORCED				
Regulation	Status	Compliance Requirements	Affected Entities	Fines/Costs
1) Commercial Vehicle Idling Restrictions	Active Enforcement	<p>A 5-minute idling limit is in effect for a vehicle's primary diesel engine throughout the state or for a diesel-fueled APU when within 100' of a school or residential unit. Several operational exemptions are provided.</p> <p>Trucks meeting a CA-specific idling emission standard and displaying a "Certified Clean Idle" (CCI) label are allowed to idle while in CA. For trucks with 2007 or newer model year engines, APUs must include a level 3 (85% PM control) diesel particulate filter and display a "Verified Clean APS" label. Fuel-fired heaters must meet CA low-emission standards</p> <p>New heavy-duty diesel engines sold in CA must include either a non-programmable 5-minute idle shutdown system or meet a CA-specific idling emission standard and display a CCI label.</p>	All diesel-fueled commercial vehicles, including sleeper cabs, greater than 10,000 lbs GVWR operating in CA	<p>\$300 minimum fine</p> <p>CARB estimated capital cost of idle reduction technologies: Pre-2007 trucks = \$5,000 - \$8,000 2007+ trucks = \$7,000 - \$10,000</p>
2) Transport Refrigeration Units (TRUs) <UPDATED>	<p>CA-based TRUs were required to display a CARB-assigned ID number & be listed in an operator report by 3/16/2009. Enforcement of ID/reporting requirements began 4/16/09.</p> <p>Enforcement of the in-use emissions requirements for all TRUs begins on July 17, 2009</p>	<p>TRU owners must a) reduce individual TRU PM emissions: 50% for 7 year-old or older units (i.e., 2001 or older) by July 17, 2009; 50% by 12/31/2009 for 2002 units; 85% by 12/31/2010 for 2003 units, and 85% for 7 year-old units through 12/31/2019; and b) have obtained ID numbers and submitted an initial compliance report for <u>CA-based</u> TRUs by 3/16/2009 with updates when changes to their TRU fleet occurs.</p> <p>Facilities with 20 or more refrigerated doors were required to submit a one-time TRU activity report by 1/31/2006</p> <p><i>Currently, two level 2 (50% PM control) and one level 3 (85% PM control) retrofit devices have been CARB-verified for TRUs</i></p>	All refrigerated trucks and trailers operating in CA	<p>Manufacturer estimated compliance costs: \$3,000-\$4,000 for PM retrofit; \$10,000 for engine replacement; and \$20,000 for a new TRU</p> <p>CARB estimated cost of TRU compliance report: \$40-\$320</p> <p>CARB estimated cost of facility report: \$700-\$18,000</p> <p>CARB Est. Total Cost: \$87 - \$156 million</p>

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3) San Pedro Bay Ports Clean Air Action Plan – Clean Truck Program <UPDATED>	Operator restrictions began 10/1/2008 Container fee began on 2/18/2009 Key elements of concession plans enjoined on 4/29/2009	Beginning 10/1/2008, pre-1989 trucks were banned from accessing the ports of Long Beach and Los Angeles. Collection of a \$35 per twenty-foot equivalent unit (TEU) fee began on 2/18/2009. Beginning 1/1/2010, pre-1994 trucks and unretrofitted 1994-2003 trucks (i.e., without 85% PM + 25% NOx control) will be banned. By 1/1/2012, all trucks must meet 2007 engine emission standards to access the ports. Only trucks included in port-approved motor carrier concession agreements will be allowed to access each respective port.	Trucks calling on the ports of Long Beach & Los Angeles	Ports estimated per truck costs: Retrofit = \$19,500; Replacement diesel truck = \$129,500; Replacement LNG truck = \$188,500
4) Large, Off-Road Spark-Ignition Equipment <UPDATED>	Operator requirements began 1/1/2009; however, enforcement has been delayed until at least 4/1/2009. Equipment purchased through 3/31/2009 can be included in the initial fleet average.	Companies with more than 3 CA-based forklifts will need to meet a CA forklift fleet average HC+NOx emission level of 2.4-2.6 g/bhp-hr by 1/1/2009; 1.7-2.0 g/bhp-hr by 1/1/2011 and 1.1-1.4 g/bhp-hr by 1/1/2013. A baseline inventory was to be established by 11/12/2007. Compliance records must be maintained on-site until 2016 indicating baseline inventory, acquisitions, retirements, emission levels, etc. <i>Currently, four retrofit devices have been CARB-verified for large spark-ignition engines</i>	Propane, CNG and gasoline forklifts operating in CA	CARB estimates compliance costs could vary between the following per unit amounts: Retrofit = ~\$3,500; New forklift = ~\$20,000; Electric forklift = ~\$21,500-\$25,000 CARB Est. Dealer Cost: \$0.9 – 4.9 million CARB Est. Ag. Cost: \$2.5– 3.3 million
5) Heavy-Duty Vehicle Inspection Program	Active Enforcement	Any heavy-duty vehicle traveling in California may be inspected for excessive smoke, tampering, and compliance with U.S. EPA engine emissions certification standards for the year the engine was manufactured. Vehicles must have a label on the engine demonstrating compliance with federal emission standards.	All diesel-fueled commercial vehicles greater than 10,000 lbs GVWR operating in CA	A \$300 fine and an additional \$500 fine if proof of repair is not provided within 45 days.

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6) Periodic Smoke Inspection Program	Active Enforcement	California-based diesel fleets are required to conduct annual inspections for excessive smoke emissions.	All California registered heavy-duty diesel trucks (including CA-plated IRP)	Fines have been levied for failing to conduct self-inspections during on-site CARB audits of fleet maintenance and inspection records.
7) Solid Waste Collection Vehicles	Active Enforcement	Best available control technology (BACT) must be applied to a specified percentage of each company's vehicles. BACT requires CARB-verification based upon PM emissions reduction levels. Companies were required to have BACT on 10% of their 1988-2002 engines by 12/31/2004 and progress incrementally towards 100% of all waste collection vehicles by 12/31/2010.	1960-2006 model year solid waste collection vehicles operating in CA	Depending upon the engine, CARB estimates compliance costs will range from \$3,000-\$8,000 for installing a PM filter to \$21,000-\$90,000 for repowering an engine. CARB Est. Total Cost: \$73.1 million

ADOPTED REGULATIONS (ENFORCEMENT HAS NOT YET BEGUN)				
Regulation	Status	Compliance Requirements	Affected Entities	Costs
8) Truck and Bus Rule	CARB adopted this regulation on December 12, 2008 Requirements begin 2011	Between 2011 and 2014, pre-2007 trucks, with some exceptions, will need to be retrofit with diesel particulate filters if operated in CA. Between 2013 and 2023, trucks will need to meet 2010 emission standards or be retrofit with selective catalytic reduction (SCR) systems. Fleet operators could either meet vehicle-specific technology requirements or submit CA-fleet emissions averaging reports to demonstrate compliance.	All heavy-duty diesel vehicles > 14,000 GVWR operating in California	CARB estimated compliance costs: PM Retrofits: \$10 - \$20,000 + \$250/yr cleaning + 2% fuel economy loss/truck SCR Retrofits: TBD CARB Est. Total Cost: \$5.5 billion
9) SmartWay Truck Efficiency (AB 32)	CARB adopted this regulation on December 12, 2008 Requirements begin 2010	Model-year 2011+ 53-foot or longer dry-van and refrigerated trailers will need to be SmartWay SM certified and use SmartWay SM approved low-rolling resistance tires (LRRT). By 2013, 53-foot or longer dry-van and refrigerated trailers will need LRRTs and side skirts (and front or rear fairing for dry-vans) or equivalent. MY 2011+ tractors pulling affected trailers will need to use LRRTs. MY 2011+ sleepers must be SmartWay SM certified. By 2012, all tractors will need to use LRRTs. A phase-in compliance option is available for pre-2011 trailers.	Class 7 & 8 trucks & 53-foot or longer dry-van & refrigerated trailers conducting long-haul operations in California	CARB estimated compliance costs: Total installed cost: \$0-50 per tire; \$2,100 per new sleeper tractor; \$2,900 per trailer CARB Est. Total Cost: \$10 billion

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10) Port/Rail Yard Trucks	Operator requirements begin 12/31/2009	<p>By 2010, motor carriers will need to ensure that trucks with pre-1994 engines are not dispatched to the state's ports or railyards. Trucks with 1994-2003 engines will need to be retrofit with CARB-verified level 3 (85% PM control) diesel particulate filters (DPFs) in order to be dispatched. Trucks with 2004+ engines can be dispatched.</p> <p>By 2012, trucks with 2004 MY engines will need to be retrofit with DPFs. By 2013, trucks with 2005-06 MY engines will need to be retrofit with DPFs. By 2014, all drayage trucks must be equipped with engines meeting 2007 standards, or equivalent, in order to be dispatched. From 2014 - 2023, all drayage trucks must meet 2010 engine standards or equivalent.</p>	Trucks operating in and out of California's port and intermodal rail facilities (i.e., within 80 miles of a cargo port)	<p>CARB estimated compliance costs: Phase 1: \$10,000 - \$31,000 for retrofit and/or truck replacement Phase 2: \$33,000 for truck replacement</p> <p>CARB Est. Total Cost: \$1.1 – 1.5 billion</p>
11) Low Carbon Fuel Standard (LCFS - AB 32) <UPDATED>	CARB adopted this regulation on April 23, 2009	Establishes a "carbon content" standard for transportation fuels linked to the fuels' life-cycle impact on greenhouse gas emissions. The goal is to reduce the "carbon intensity" of the gasoline and diesel fuels sold in CA by at least 10 percent by 2020. Each fuel would have to meet this standard individually through a phase-in schedule beginning in 2011. For diesel; biodiesel, biomass-derived renewable diesel, and natural gas are currently viewed as potential low-carbon options.	Transportation fuels sold in California beginning in 2011	<p>Compliance costs are expected to include costs associated with producing/refining lower carbon fuels.</p> <p>CARB Est. Total Cost: \$11 billion</p>

REGULATIONS/INITIATIVES UNDER DEVELOPMENT				
Regulation	Status	Compliance Requirements	Affected Entities	Costs
12) Cap-and-Trade Program (AB 32)	CARB unanimously adopted a Scoping Plan endorsing this program on December 12, 2008	A cap-and-trade program sets the total amount of greenhouse gas emissions allowable for facilities or entities under the cap and allows covered sources, including producers and consumers of energy, to determine the least expensive strategies to comply. This program is proposed to be part of the Western Climate Initiative's regional cap-and-trade program.	Includes transportation fuel combustion regulated where the fuel enters into commerce beginning in 2015.	<p style="text-align: center;">- To Be Determine -</p> <p>Compliance costs are expected to include costs associated with fuel suppliers purchasing/selling emission allowances, selling or blending non-fossil fuels, and/or limiting fuel sales.</p>