

## Updated Informative Digest

### **FOR AMENDMENTS TO EXISTING REGULATIONS MADE AS PART OF THE PUBLIC HEARING TO CONSIDER PROPOSED REGULATION TO REDUCE EMISSIONS FROM IN-USE ON-ROAD DIESEL VEHICLES, AND AMENDMENTS TO THE REGULATIONS FOR IN-USE OFF-ROAD VEHICLES, DRAYAGE TRUCKS, MUNICIPALITY AND UTILITY VEHICLES, MOBILE CARGO HANDLING EQUIPMENT, PORTABLE ENGINES AND EQUIPMENT, HEAVY-DUTY ENGINES AND VEHICLE EXHAUST EMISSIONS STANDARDS AND TEST PROCEDURES AND COMMERCIAL MOTOR VEHICLE IDLING**

**Sections Affected:** Amendments to California Code of Regulations (Cal. Code Regs.), title 13, section 2020, "Purpose and Definitions of Diesel Particulate Matter Control Measures;" Cal. Code Regs., title 13, sections 2022 and 2022.1, "Diesel Particulate Control Measure for Municipality or Utility On-Road Heavy-Duty Diesel-Fueled Vehicles;" Cal. Code Regs., title 13, section 2027, "Regulation to Control Emissions from In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks;" Cal. Code Regs., title 13, sections 2449 and 2449.3, "Regulation for In-Use Off-Road Diesel-Fueled Fleets;" Cal. Code Regs., title 13, sections 2451, 2452, 2453, 2455, 2456, 2458, 2461, and 2462 of the "Statewide Portable Equipment Registration Program;" Cal. Code Regs., title 13, section 2479, "Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail yards;" Cal. Code Regs., title 13, section 2485, "Airborne Toxic Control Measure to Limit Diesel Fueled Commercial Motor Vehicle Idling;" Cal. Code Regs., title 13, section 1956.8, "Exhaust Emissions Standards and Test Procedures – 1985 and Subsequent Model Heavy-Duty Engines and Vehicles;" and Cal. Code Regs., title 17, sections 93116.1, 93116.2 and 93116.3 of the "Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater."

**Background:** In 1998, the Board identified particulate matter emitted from diesel engines (diesel PM) as a Toxic Air Contaminant (TAC) and in 2001, adopted the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel Risk Reduction Plan or Diesel RRP). The diesel RRP identified Airborne Toxic Control Measures (ATCM) and regulations that would set more stringent exhaust emission standards for new diesel-fueled engines and vehicles, establish retrofit requirements for existing engines, vehicles, and equipment, and require the sulfur content of diesel fuel to be reduced to no more than 15 parts per million by weight (ppmw). The new sulfur standard was needed to enable the performance of the emission control technologies. The scope of the Diesel RRP was broad, addressing all categories of engines, both mobile and stationary, and included control measures for private and public fleets of on-road and off-road diesel vehicles. The ultimate goal of the Diesel RRP was to reduce California's diesel PM emissions and associated cancer risks from 2000 baseline levels by 85 percent by 2020.

The federal Clean Air Act (CAA) requires U.S. Environmental Protection Agency (U.S. EPA) to establish National Ambient Air Quality Standards (NAAQS) for pollutants

considered harmful to public health, including fine particulate matter (PM2.5) and ozone. Fifteen areas in California are designated non attainment for the federal ozone standard, including the South Coast Air Basin, the San Joaquin Valley, the Sacramento region, San Diego, Ventura, and a number of air districts downwind of urban areas. In addition, the South Coast Air Basin and the San Joaquin Valley are designated nonattainment for the federal PM2.5 standard. Federal law mandates the development of State Implementation Plans (SIP) documenting the actions the state will take to attain the federal air quality standards in these areas.

In September 2007, ARB adopted the SIP committing the State to develop measures to achieve emission reductions from sources under State regulatory authority. The reductions are needed to attain the NAAQS for ozone and PM2.5. While multiple areas across the State exceed federal air quality standards, the air quality in the South Coast and the San Joaquin Valley poses the greatest challenge and defines the amount of reductions needed. Reductions are needed by 2014 to meet the PM2.5 attainment deadline and by 2023 to meet the ozone attainment deadline. An interim target date of 2017 was adopted by ARB for the San Joaquin Valley to meet the ozone NAAQS as part of an effort to accelerate progress toward attainment before 2023. As part of the overall SIP commitment, ARB staff is also obligated to bring measures to the Board for its consideration. The new regulation for in-use on-road heavy duty diesel vehicles is one of these commitments. ARB staff has used the targeted reductions estimated in the SIP as the goal for this rulemaking.

Staff published an Initial Statement of Reasons (ISOR) that described the rationale for the proposed rulemaking. This document pertains solely to the amendments to existing regulations. It is being done in advance of the new regulation to provide fleets more time to meet deadlines to comply with the changes to the existing regulations. A separate updated informative digest for the new regulation will be published later time.

**Description of the Regulatory Action to Amend Existing Regulations:** Following a December 12, 2008 public hearing, the ARB approved a new regulation to reduce emissions of diesel particulate matter (diesel PM), oxides of nitrogen (NOx), and greenhouse gases from in-use diesel trucks and buses that operate in California (Truck and Bus regulation). The Truck and Bus regulation will establish requirements for in-state and out-of-state motor carriers, California-based brokers, vehicle owners operators, and any California resident who hires or dispatches vehicles subject to the regulation. As part of this rulemaking, amendments to the existing regulations listed above were made to ensure that the existing regulations and the new Truck and Bus regulation work together effectively.

*Purpose and Definitions of Diesel Particulate Matter Control Measures:*

The amendment to section 2020, title 13, California Code Regulations, modifies the definition of "municipality." Under the current definition, agencies of the United States of America are subject to the regulation for municipality and utility heavy-duty diesel vehicles. The amended definition excludes federal agencies and consequently fleets owned by the federal government are not be subject to the municipality and utility fleet regulation. This modification became necessary after it was determined that CAA

section 118 did not require federal fleet operators to comply with the municipality and utility fleet regulation because the regulation did not generally apply to nongovernmental entities. Tribal reservations and rancherias are also excluded under the revised definition. Fleets owned and operated by these entities are subject to the Truck and Bus regulation.

*Municipality and Utility Diesel-Fueled Vehicles:* The amendments to sections 2022 and 2022.1 expands the scope of the regulation and adds new language to address ambiguities and omissions in the regulation when initially adopted. Among other things, the amendments add requirements to ensure that retirement credit is properly granted to fleets and expand the scope and applicability of the regulation to include light heavy-duty engines that were inadvertently omitted from the original scope of the regulation. The amendments also broaden the scope of the regulation to include 2007 model year and newer engines certified under Averaging Banking and Trading (ABT) provisions at PM levels greater than the 2007 model year standard of 0.01 g/bhp-hr. The regulation was also amended to allow municipalities and utilities to apply for a one-year extension of the intermediate 2009 compliance deadline for light heavy-duty engines. Other changes were made to the regulation with respect to utility fleet compliance to improve compatibility with the Truck and Bus regulation.

*In-Use Off-Road Diesel Fueled Fleets:* The amendments to sections 2249 broadens the scope of the regulation to include both the drive engine and the secondary engine of all two-engine cranes operated in California. The amendments also modify section 2449.3(b)(2)(c) to exclude the horsepower in two-engine cranes from a fleet's maximum horsepower. In addition to amendments affecting two-engine cranes, section 2449(e)(7) of the regulation has been modified to clarify the exemption provision for low-use vehicles and new language has been provided in section 2449(e)(15) to clarify the repower requirements for workover rigs. The regulation requires that any replacement engine must be an on-road engine if the workover rig is to be registered and driven on public roadways.

*Drayage Trucks:* The amendments to the drayage truck regulation, section 2027(d), title 13, California Code Regulations, will require that 2004 model year engines be equipped with the highest level verified diesel emission control strategy (VDECS) by January 1, 2012, and that 2005 - 2006 model year engines be equipped with the highest level VDECS for PM by January 1, 2013. This requirement will align the drayage truck regulation with the Truck and Bus regulation. This will help the State meet federally mandated national ambient air quality standards (NAAQS) for PM<sub>2.5</sub> emission and its commitments under the 2007 State Implementation Plan. The amendments will also ensure uncontrolled trucks won't cycle into the drayage fleet to avoid the requirements of the Truck and Bus regulation.

*Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards:* The amendment to section 2479, title 13, California Code Regulations, excludes sweepers and mobile cranes from the scope of the regulation. This modification, made in tandem with changes that add these vehicles to either the Truck and Bus regulation or the In-Use Off-Road Diesel Fleet regulation, will ensure that owners and operators will only be

required to comply with one regulation for each vehicle.

*Portable Engine Air Toxic Control Measure (ATCM):* The amendments to section 93116.1 et seq., title 17, California Code Regulations, exclude the secondary engines on two-engine cranes and privately owned sweepers from the requirements of the ATCM. The modifications were made in tandem with changes that add these engines, as well as the vehicles on which they are equipped, to either the Truck and Bus regulation, or the In-Use Off-Road Diesel Fleet regulation and ensure that owners and operators will only be required to comply with one regulation. The amendments also delete the diesel PM standards and fleet requirements for lattice boom cranes.

*Statewide Portable Equipment Registration Program (PERP):* Staff amended the PERP regulation, section 2450 et seq., title 13, California Code Regulations, to make it consistent with the changes made to the Portable Engine ATCM. As with the ATCM, staff has added new definitions for “crane” and “street sweeper” that respectively cross-reference to the Truck and Bus regulation, the Municipality and Utility Diesel-Fueled Vehicles regulation, or the In-Use Off-Road Diesel Fleet.

The amendments also exempt the secondary engines on two-engine cranes and dual-engine street sweepers from all of the emission requirements of the PERP regulation, except the limits on opacity specified in section 2456(f)(5). New language has been added to require that the secondary engine on a crane comply with the applicable requirements of title 13, California Code Regulations, section 2449 of the regulation for in-use off-road diesel-fueled vehicles, and that the secondary engine on privately owned dual-engine street sweepers comply with the applicable requirements of the Truck and Bus regulation, section 2025, title 13, California Code Regulations.

*Commercial Motor Vehicle Idling and Exhaust Emissions Standards and Test Procedures– 1985 and Subsequent Model Heavy-Duty Engines and Vehicles:* Sections 2485 and 1956.8, title 13, California Code Regulations, ) have been respectively amended to exempt armored cars and workover rigs from existing vehicle idling limit requirements. With regard to armored cars, the amendment ensures the health and safety of the vehicle’s occupants when idling, by allowing the vehicle’s climate control system to operate.

With regard to workover rigs, the amendment will allow such vehicles to operate when performing work for which the vehicle was specially designed. Typically, in vehicles with power take off (PTO), the engine shutdown system is normally overridden when in PTO mode. For most vehicles this occurs when a truck’s engine is idling and the engine’s power is used to perform certain specialized non-mobile functions. However, unlike other vehicles, workover rigs use PTO to propel the vehicle and do not use PTO to power the specialized work while stationary.

**Comparable Federal Regulations:** Section 209(a) of the federal Clean Air Act (CAA) preempts states from adopting emission standards for new motor vehicles and engines. However, section CAA 209(b) provides that the Administrator of the U.S. Environmental Protection Agency (U.S. EPA) shall grant California a waiver of

preemption, unless she can make certain specified findings. The amendments do not establish emission standards for new motor vehicles and engines, and thus no issue of federal preemption exists. Additionally, there are no federal regulations comparable to the existing California in-use on-road regulations that have been amended.

CAA section 209(e)(2) allows California, upon obtaining authorization from U.S. EPA, to adopt and enforce emission standards and other requirements related to the control of emissions for new and in-use off-road engines not expressly preempted (i.e., as set forth in CAA section 209(e)(1), new off-road engines under 175 hp used in farm and construction equipment and vehicles and new locomotives and locomotive engines). To the extent that the amendments to ARB's off-road regulations require authorization, ARB will request that U.S. EPA grant such authorization. As with the amendments to the in-use on-road regulations, there are no federal regulations comparable to the existing California in-use off-road regulations that have been amended.

Presently, there are also no comparable federal on-road regulations to California's heavy-duty vehicle idling requirements. The amendments to the California idling requirements do not require a waiver in that the amendments modify an in-use operational control for which states are not preempted. (See CAA section 209(d).) This exception has also been applied to off-road engine idling requirements. (See *Engine Manufacturers Association v. EPA* (D.C. Cir. 1996) 88 F.3d 1075.)