



FACT SHEET

(Updated 1/11/08)

The following information briefly summarizes the Airborne Toxic Control Measure For Stationary Compression Ignition Engines Used in Agricultural Operation amendments as adopted by the California Air Resources Board (CARB) and the Butte County Air Quality Management District's (District) Rule 1001 and related rules on the same topic. More complete information can be found at the websites following the main topics below.

Status of State Requirements:

- In 1998, the California Air Resources Board (CARB) determined diesel particulate matter (PM) is a toxic air contaminant. In ambient air, diesel PM makes up about 75% of all the toxic air contaminants and contributes to over 70% of the health risk associated with ambient air. (<http://www.arb.ca.gov/research/diesel/diesel-health.htm>)
- In 2000, CARB proposed a Diesel Risk Reduction Plan to reduce diesel PM emission by 60% statewide by 2020. The plan includes proposing Airborne Toxics Control Measures (ATCMs) for most diesel PM sources including portable engines, transport refrigeration units, public and private on-road (tractor trailer trucks, etc.) and off-road (construction equipment, etc.) fleets, marine vehicles, and others. The plan also include other measures such as reducing idling near sensitive receptors and fuel reformulation to address diesel PM emissions. (<http://www.arb.ca.gov/diesel/dieselrrp.htm>)
- On November 16, 2006, CARB adopted amendments to the ATCM for Stationary Compression Ignition Engines to include requirements for existing (in-use) engines used in agricultural operations. The adopted amendments require replacement of **all** (except for agricultural wind machines) in-use stationary diesel-fueled engines used in agricultural operations in Butte County by 2020. (<http://www.arb.ca.gov/diesel/ag/inuseag.htm>)
- CARB regulations became effective on October 18, 2007.

Butte County Air Quality Management District Rules

- As allowed by the California Health and Safety Code, the District adopted an alternative rule on April 26, 2007 that is at least as stringent in controlling diesel PM as the State ATCM.
- The District adopted amendments on November 29, 2007, allowing portable engines used exclusively in agricultural operations to be voluntarily registered as stationary engines and subject to the stationary engine requirements of Rule 1001.
- The Butte County Air Quality Management District (District) adopted three new rules regulating diesel PM from stationary compression ignition engines used in agricultural operations:
 - Rule 1001—*Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines Used in Agricultural Operations* serves to reduce diesel particulate matter (PM) from stationary engines used in agricultural operations.
 - Rule 441—*Registration Requirements for Stationary Compression Ignition Engines Used in Agricultural Operations* sets forth the registration requirements for all engines used in agricultural operations rated at greater than 50 horsepower.
 - Rule 513—*Registration Fees for Stationary Compression Ignition Engines Used in Agricultural Operations* sets forth the registration fees for engines subject to the rules.

FACT SHEET (continued)

(Updated 1/11/08)

- Rule 1001 was adopted in lieu of adopting the California Air Resources Board's (CARB) ATCM for Stationary Compression Ignition Engines as amended on November 16, 2006. The rule:
 - Contains many of the same requirements as the CARB ATCM; however, Rule 1001 provides an exemption for remotely located engines in Butte County. Engines located ½ mile or more from a receptor (residence, school, hospital, or business) **are exempt** from the emission standards requirements **but still must register**.
 - Requires the operators and owners to register agricultural engines with the District:
 - ▶ In-use (existing) engines by March 1, 2008.
 - ▶ New engines installed on or after January 1, 2008, no later than 90 days after installation.
- Rule 1001 Diesel PM Emission Standards—The attached tables from Rule 1001 summarize the emission requirements for new engines and for existing non-certified and certified engines.
 - For new engines, the emission standard relates to the current Tier 3 standard, however, as the Tier 4 standards become effective, the rule requires new engines to meet the most current standard. See Table 7.2.
 - Non-certified engines are engines manufactured prior to the Tier standard requirements that started in 1996. Rule 1001 requires these engines be replaced with Tier 3 engines beginning in 2010. For those engines that may continue to have health impacts with the installation of a Tier 3 engine (typically engines located within ¼ mile of a receptor), the owner/operator may request to delay the installation for up to 4 years if waiting will allow the installation of an electric motor or cleaner engine that eliminates or reduces the toxic health impacts on the receptor. Additional time may be granted for installing electric motors.
 - Tier 1 or Tier 2 certified engines must be replaced with Tier 4 engines starting in 2014 or by 12 years after the installation of the engine, whichever is later.
- Rule 441 prescribes the registration requirements for engines rated at greater than 50 horsepower that are subject to Rule 1001. The rule also sets deadlines for registration and describes the information required. The certificate of registration is valid for two years and subject to renewal. Rule 441 requires a transfer of ownership application if the engine changes ownership and also sets provisions for District inspection of the engine.
- Rule 513 sets the application fee for engines required to register by Rule 1001.
 - The fee per engine is currently \$150.90, which includes a one-time application fee of \$75.00 and a registration fee that is valid for two years that is based on one hour of the District's hourly rate (currently \$75.90).
 - Registration renewal is set at one hour of the District's hourly rate. The renewal period is two years.
 - The rule allows for technical evaluation fees to be charged for evaluating the health impact from engines that may still have potential for health impacts, even with replacement with Tier 3 or 4 engines. This scenario is most probable with engines that are or will be located within ¼ mile of a receptor.

For additional information, please visit the District website at www.bcaqmd.org.

FACT SHEET (continued)
(Updated 1/11/08)

TABLE 7.2: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY DIESEL-FUELED CI ENGINES > 50 BHP USED IN AGRICULTURAL OPERATIONS (See Section 7.2)	
Horsepower Range (hp)	DIESEL PM
	DIESEL PM STANDARDS¹ (g/bhp-hr) The More Stringent of:
All Applications Greater Than >50 But Less Than to < 100, Other Than Generator Sets	Less Than or Equal to 0.30 OR Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power
All Applications Greater Than or Equal to >100 But Less Than to < 175, Other Than Generator Sets	Less Than or Equal to 0.22 OR Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power
All Applications Greater Than or Equal to 175 AND Generator Sets Greater than 50	Less than or Equal to 0.15 OR Off-Road Engine Certification Standard for an off-road engine of the same maximum rated power

¹Prior to January 1, 2008, these limits shall not apply to engines sold from one agricultural operation to another and funded under State or federal incentive funding programs.

FACT SHEET (continued)
(Updated 1/11/08)

TABLE 7.3.1: PM EMISSION STANDARDS NONCERTIFIED GREATER THAN 50 BHP IN-USE STATIONARY DIESEL-FUELED ENGINES USED IN AGRICULTURAL OPERATIONS (See Section 7.3.1)			
Horsepower Range	Application	Compliance On or After December 31	Diesel PM Not to Exceed (g/bhp-hr)
Greater Than 50 But Less Than 75	Generator Sets	2015	0.02
	All Other Applications	2011	85% Reduction from Baseline Levels OR 0.30
Greater Than or Equal to 75 But Less Than 100	Generator Sets	2015	0.01 OR Certified engine with PM emissions not exceeding 0.15 g/bhp-hr and equipped with Level 3 Verified Diesel Emission Control Strategy
	All Other Applications	2011	85% Reduction from Baseline Levels OR 0.30
Greater Than or Equal to 100 But Less Than 175	Generator Sets	2015	0.01 OR Certified engine with PM emissions not exceeding 0.15 g/bhp-hr and equipped with Level 3 Verified Diesel Emission Control Strategy
	All Other Applications	2010	85% Reduction from Baseline Levels OR 0.22
Greater Than or Equal to 175 But Less Than or Equal to 750	All Applications	2010	85% Reduction from Baseline Levels OR 0.15
Greater Than 750	All Applications	2014	0.075

FACT SHEET (continued)
(Updated 1/11/08)

TABLE 7.3.2: PM EMISSION STANDARDS TIER 1 AND TIER 2 CERTIFIED GREATER THAN 50 BHP IN-USE STATIONARY DIESEL-FUELED ENGINES USED IN AGRICULTURAL OPERATIONS (See Section 7.3.2)		
Horsepower Range	Compliance On or After December 31	Diesel PM Not to Exceed (g/bhp-hr)
Greater Than 50 But Less Than 75	2015 or 12 years after the date of initial installation, whichever is later	0.02
Greater Than or Equal to 75 But Less Than 175	2015 or 12 years after the date of initial installation, whichever is later	0.01 OR Certified engine with PM emissions not exceeding 0.15 g/bhp-hr and equipped with Level 3 Verified Diesel Emission Control Strategy
Greater Than or Equal to 175 But Less Than or Equal to 750	2014 or 12 years after the date of initial installation, whichever is later	0.01 OR Certified engine with PM emissions not exceeding 0.15 g/bhp-hr and equipped with Level 3 Verified Diesel Emission Control Strategy
Greater Than 750	2014 or 12 years after the date of initial installation, whichever is later	0.075