



Air Pollution Control Board

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April 8, 2008

TO: Meeting Participants and Other Interested Parties

**DISCUSSION OF IMPLEMENTATION OF AMENDMENTS TO THE
AIRBORNE TOXIC CONTROL MEASURE FOR
DIESEL PARTICULATE MATTER FROM PORTABLE DIESEL-FUELED
ENGINES RATED AT 50 HORSEPOWER AND GREATER**

On January 22, 2008, the Air Pollution Control District conducted a public workshop to receive comments and questions regarding District implementation of amendments to the California Air Resources Board's (ARB) Airborne Toxic Control Measure (ATCM) for Diesel Particulate Matter from Portable Diesel-Fueled Engines Rated at 50 Horsepower and Greater (Sections 93116-93116.3, Title 17, California Code of Regulations). The attached report contains the comments and questions received, and the District's responses.

If you have any questions regarding the attached report or the ATCM, please call Cara Bandera at (858) 586-2751 or John Annicchiarico at (858) 586-2733.

ROSA MARIA S. ABREU, Assistant Director
Air Pollution Control District

RMA:CB:jlm

Attachments

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

**AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR DIESEL
PARTICULATE MATTER FROM PORTABLE DIESEL-FUELED ENGINES
RATED AT 50 HORSEPOWER AND GREATER**

WORKSHOP REPORT

A workshop notice for implementation of amendments to the Airborne Toxic Control Measure (ATCM) for Diesel Particulate Matter from Portable Diesel-Fueled Engines Rated at 50 Horsepower and Greater (Title 17 of the California Code of Regulations (CCR), Section 93116 through 93116.5) was mailed to all known individuals who have portable diesel-fueled engines registered with the State or the District, and operated in California. Notices were also mailed to all Economic Development Corporations and Chambers of Commerce in San Diego County, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

A workshop was held on January 22, 2008, and thirty-eight (38) people attended. Workshop comments were received, and District responses are as follows:

1. WORKSHOP COMMENT

When did the Tier 3 standard for newly manufactured non-road engines take effect? When are Tier 4 standards for newly manufactured non-road engines expected to take effect?

DISTRICT RESPONSE

For engines in the horsepower range of 50-100, Tier 3 engines became available in 2008, and Tier 4 engines will be phased in from 2008-2013. For engines in the 100-175 horsepower range, Tier 3 engines became available in 2007, and Tier 4 engines will be phased in from 2008-2012. For engines in the 175-750 horsepower range, Tier 3 engines were available in 2006, and Tier 4 engines will be phased in from 2011-2014. For engines greater than 750 horsepower, there will not be Tier 3 engines and Tier 4 engines will be phased-in from 2011-2015. See included document for additional information on when Tier engine standards take effect.

2. WORKSHOP COMMENT

Does the District have a template that can be used for the compliance report due in 2011?

DISTRICT RESPONSE

The District does not currently have a template available for the 2011 compliance report. Most likely either ARB or the District will develop a reporting template prior to 2011. The District will mail advisories relating to rule requirements and available forms as the applicable compliance dates in the ATCM are approached.

3. WORKSHOP COMMENT

My facility has an uncertified engine that operates only about 5 hours per year. Does this engine have to be replaced by 2010 with a certified engine?

DISTRICT RESPONSE

The ATCM requires that all portable diesel-fueled engines be certified to meet a federal or California standard for newly manufactured engines (i.e., Tier 1, 2 or 3) by January 1, 2010, except for low-use engines or emergency engines. An engine that operates for 80 hours or less per year may qualify as a low use engine. Uncertified low-use engines do not have to be replaced in 2010, as long as the owner commits in writing that the engine will be replaced with a Tier 4 engine within 2 years of availability of Tier 4 engines. See response to Comment No. 1.

4. WORKSHOP COMMENT

If the ATCM requires replacement of a current uncertified engine by 2010 and Tier 4 engines are not available, will this engine have to be replaced again by 2020? Has ARB or the District looked into this issue?

DISTRICT RESPONSE

Yes, engines purchased in 2010 may have to be replaced again by 2020, or have add-on air pollution control equipment installed in order to comply with the fleet standards by January 1, 2020. ARB and the District are aware that this situation may occur.

5. WORKSHOP COMMENT

If our fleet is completely Tier 3 engines, will this fleet meet the fleet averaging standard in 2013?

DISTRICT RESPONSE

A fleet composed of all Tier 3 engines should meet the fleet average standards in effect on January 1, 2013. Each fleet needs to calculate the fleet average for their specific fleet to confirm compliance.

6. WORKSHOP COMMENT

Can add-on control equipment be used on an engine to meet the fleet averages?

DISTRICT RESPONSE

Yes, add-on control equipment can be used to reduce diesel particulate matter (PM) emissions and meet the fleet average requirements.

7. WORKSHOP COMMENT

Do the fleet-wide standards apply to total horsepower of all engines or each individual engine?

DISTRICT RESPONSE

The fleet-wide standards apply to all engines with a horsepower within the listed range. Each fleet subject to this regulation must comply with a weighted average PM emission fleet average expressed as grams per brake horsepower-hour (g/bhp-hr). The fleet average is divided into three different horsepower ranges, less than 175, 175-749, and greater than 750. Each horsepower range has a fleet average that must be met by 2013, 2017, and 2020, with the limit successively becoming more stringent.

8. WORKSHOP COMMENT

Are fleet averages weighed by annual hours of use for each engine?

DISTRICT RESPONSE

The fleet average is not weighed by annual hours of use for each engine. The fleet average is calculated by summing the product of each portable engine's brake horsepower and its PM emission factor, then dividing this sum by the total brake horsepower in the fleet. After the fleet average is calculated, it can be revised when grid power is used for more than 200 hours in lieu of using a portable diesel-fueled engine, for alternative-fueled engines, and for portable diesel-fueled engines certified to a Tier 4 non-road engine standard added to a fleet prior to January 1, 2015.

9. WORKSHOP COMMENT

Are there any or will there be any more stringent requirements for portable diesel-fueled engines in San Diego County other than what is required by the ATCM?

DISTRICT RESPONSE

Portable diesel-fueled engines 50 brake horsepower (bhp) and greater operating in San Diego County must comply with the Portable Diesel-Fueled Engine ATCM, and either District Rule 12.1 or the State Portable Equipment Registration Program (PERP). The District does not

currently have plans to add additional emission standard requirements to District Rule 12.1. ARB is not currently planning to add more stringent requirements to the PERP or ATCM.

10. WORKSHOP COMMENT

When computing the fleet average calculations required by the ATCM, is the maximum rated brake horsepower or continuous rated brake horsepower used for each engine?

DISTRICT RESPONSE

The fleet average calculations must be computed using the maximum rated brake horsepower for each engine.

11. WORKSHOP COMMENT

Does an engine with a maximum rated horsepower of 49 or below require a permit or registration in San Diego County?

DISTRICT RESPONSE

No. Per District Rule 11, a permit or registration is only required for engines with a maximum rated horsepower of 50 and greater.

12. WORKSHOP COMMENT

What steps do I need to take to register my diesel engine?

DISTRICT RESPONSE

An engine may be registered either with the District or with the State, depending on several criteria. Engines are eligible for registration or permitting only if the engine meets the current emissions standards for new off-road engines. For example, all engines below 750 hp must be Tier 3 engines, and engines 750 hp or greater must be Tier 2 engines. One exception to this requirement is certified engines (i.e., Tier 1 or 2) that operated in California between March 1, 2004 and October 1, 2006, may register in the state PERP until December 31, 2009.

Uncertified engines (Tier 0) currently operating without a permit or registration may enter into a Stipulated Order of Abatement with the District, which – if approved by the Hearing Board – allows the engine to continue operation in San Diego County for up to one year while the owner or operator works toward replacing it. Contact Heidi Gabriel-Pack at (858) 586-2657 or by e-mail at Heidi.Pack@sdcounty.ca.gov for additional information on the Stipulated Order of Abatement.

Workshop Report
Portable Diesel-Fueled Engines ATCM (93116)

Portable engines that will only operate in San Diego County, which meet the current Tiered emission standard, are eligible for portable equipment registration with the District. The District's General Application Form (App116) and the appropriate Certificate of Registration Form must be submitted to the District, along with the required fee. Once the completed forms have been received, the fee paid and compliance with applicable rules verified, the applicant receives their registration for the first year of operation. Each year thereafter, the District will mail a renewal invoice and after the renewal fees are paid, a new registration will be sent to the registration holder.

Portable engine owners/operators may also register their engines with CARB under the PERP. Engines with a valid PERP registration may operate anywhere throughout California, including in San Diego County. Additional information on the PERP may be found on CARB's website at: <http://www.arb.ca.gov/portable/portable.htm>

Registrations issued by the District are only valid in San Diego County. Registrations issued by the State are valid everywhere in California. It is also less expensive to register an engine with the State than with the District. Another advantage of registering an engine with the State is that the engine can later be sold for use outside of San Diego County and a change of ownership submitted by the new owner without the engine having to meet emission standards for a new engine.

In addition to the ATCM, an engine registered with the District must meet the requirements of Rule 12.1, and an engine registered with the State must comply with the PERP requirements. An engine cannot be registered both with the District and the State because a valid State registration makes the local District registration null and void. The conditions on the State or District registration must be followed at all times. Upon submittal of a complete PERP application to the State, the engine can operate in San Diego County until the PERP registration is received.

13. WORKSHOP COMMENT

How do I determine what tier standard a specific engine meets based on the engine family number?

DISTRICT RESPONSE

ARB's website, <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>, contains a database with information for all ARB certified engines. Information regarding a specific engine can be searched using the engine family number.

14. WORKSHOP COMMENT

Will the District provide written confirmation that a completed application submitted for PERP registration with ARB allows operation of the engine in San Diego County?

DISTRICT RESPONSE

A complete application submitted for PERP registration with ARB allows operation of the engine in San Diego County until the registration is either granted or denied. The District will provide written confirmation of this policy upon request. Contact Jorge Lopez of the Compliance Department for additional information at (858) 586-2682 or by e-mail at Jorge.Lopez@sdcounty.ca.gov.

15. WORKSHOP COMMENT

What emission standards take effect in 2010?

DISTRICT RESPONSE

The ATCM requires that all portable diesel-fueled engines be certified to meet a federal or California standard for newly manufactured engines (i.e., Tier 1, 2 or 3) by January 1, 2010, except for low-use engines or emergency engines. Low-use and emergency engines may commit to replacing uncertified engines with a Tier 4 engine within two years of availability of Tier 4 engines, in lieu of having a certified engine by January 1, 2010. Upon District approval, lattice boom cranes may also be exempt from the 2010 requirement to be a certified engine. See also response to Comment No. 3.

16. WORKSHOP COMMENT

Does biodiesel, specifically B20, qualify as an alternative fuel for compliance with the ATCM?

DISTRICT RESPONSE

Biodiesel does not qualify as an alternative fuel for compliance with the ATCM. "Alternative fuel" means gasoline, natural gas, propane, liquid petroleum gas, hydrogen, ethanol, or methanol.

17. WORKSHOP COMMENT

Can a Tier 0, uncertified engine, be retrofitted with add-on controls to meet the 2010 requirement?

DISTRICT RESPONSE

No. The ATCM requires that all portable diesel-fueled engines are certified engines by 2010. Retrofitting an existing Tier 0 engine does not provide for certification, which can only be granted at the time of engine manufacture. See also response to Comment No. 15.

18. WORKSHOP COMMENT

Is there going to be any type of identification tag on portable diesel-fueled engines, as ARB is requiring for mobile off-road engines?

DISTRICT RESPONSE

No. In contrast to mobile off-road engines, portable diesel-fueled engines 50 bhp and greater are required to be registered and have a registration certificate. The registration certificate will contain requirements pertaining to the Portable Diesel-Fueled Engine ATCM, so an identification tag will not be necessary to verify compliance.

19. WORKSHOP COMMENT

Have any provisions been made to handle the large number of engines that must be retired in California because of the ATCM requirements? Is there any type of economic benefit to scrapping these older, dirtier engines rather than selling them to Arizona or Mexico, since scrapping the engine would provide a greater air quality benefit?

DISTRICT RESPONSE

The District is unaware of any specific provisions to account for engines that will be retired because of this ATCM. At this time, there is no economic benefit to scrapping an engine rather than selling it to Arizona or Mexico.

20. WORKSHOP COMMENT

How do I find the diesel PM emission rate for each specific engine used in the fleet average calculation? Do the emission rates take into account deterioration of the engine over time and do the emission rates need to be adjusted accordingly?

DISTRICT RESPONSE

Diesel PM emission rates verified by EPA or ARB for purposes of engine certification should be used in the fleet average calculation. See response to Comment No. 13 for information regarding where to find this data.

Emission rates do not need to be adjusted for deterioration because the engine certification process already includes a deterioration factor and requires manufactures to certify emissions for the useful life of the engine.

21. WORKSHOP COMMENT

Does the ATCM require engine maintenance per manufacturer specifications?

DISTRICT RESPONSE

The ATCM does not specifically require engine maintenance per manufacturer specifications. However, District rules require engine maintenance and these requirements are specified as permit conditions.

22. WORKSHOP COMMENT

What section of the ATCM contains information regarding fleet average adjustments for using grid power?

DISTRICT RESPONSE

Section 93116.3(d)(2)(A) of the ATCM contains requirements regarding how to adjust a fleet average calculation when grid power is used in lieu of a diesel-fueled portable engine.

23. WORKSHOP COMMENT

What fines or penalties will be incurred if an engine is not complying with the ATCM?

DISTRICT RESPONSE

Violations of the ATCM are subject to criminal or civil penalties, including imprisonment and penalties up to \$75,000 per day of violation. Penalties may be higher if the operation causes public nuisance and great bodily injury or death (or an unreasonable risk of great bodily injury or death).

CB:jl
04/08/08