

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

**AMENDMENTS TO THE
AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR
STATIONARY COMPRESSION IGNITION (CI) ENGINES**

WORKSHOP REPORT

A workshop notice for the implementation of modifications to the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition (CI) Engines (Title 17 of the California Code of Regulations (CCR), Section 93115) was mailed to all individuals who have stationary engine permits for a stationary CI engine in San Diego County, and engine sellers in the San Diego region. 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 February 27, 2008. Fifty people attended the workshop. Comments were received during the workshop. The comments and Air Pollution Control District (District) responses are as follows:

1. WORKSHOP COMMENT

What is the definition of prime engine?

DISTRICT RESPONSE

A prime engine is any stationary engine that is not an emergency standby engine. An emergency standby engine is installed and operated for the primary purposes of providing electrical power or mechanical work during an emergency and is not the primary power at a facility. Emergency engines may also be operated under limited circumstances for maintenance and testing, in response to an impending outage, and under a demand response program as specified in the ATCM.

2. WORKSHOP COMMENT

If an engine is used during a power outage, is it considered an emergency engine or prime engine?

DISTRICT RESPONSE

An engine used during a power outage is considered an emergency engine as long as it operates as allowed by the ATCM. The ATCM allows the use of emergency engines during the failure or loss of all or part of normal electrical power services or normal gas supply. The loss of power must be beyond reasonable control of the owner or operator, and not caused by enforcement of a contractual obligation. Emergency engines may also be used in response to an impending outage and under an Interruptible Service Contract, or the Rolling Blackout Reduction Program as specified in the ATCM. See also response to Comment No. 1.

3. WORKSHOP COMMENT

Emergency engines at health care facilities are allowed to operate up to 40 hours per year for maintenance and testing, upon District approval. In order to receive District approval, a health risk study is required. How is this health risk study conducted and what parameters are considered? Whom do I contact to make this request?

DISTRICT RESPONSE

The District uses a tiered approach in the health risk study of in-use stationary diesel engines. If the initial health screen fails to meet the standard, a more detailed assessment is performed. The detailed assessment uses computer models to predict downwind exposure and risk from testing and maintenance operations. Some parameters used in the health screening include particulate matter (PM) emissions, exhaust stack characteristics (height, flow rate, temperature, and location), as well as downwind topography and land use. If the health risk is at or below the threshold of 10 in a million, then the District will permit up to 40 hours per year for maintenance and testing for that specific engine. Contact the District's Mechanical Engineering Section at (858) 586-2600 for additional information on submitting an application.

4. WORKSHOP COMMENT

What is the cost of a Health Risk Assessment?

DISTRICT RESPONSE

Health Risk Assessment costs are determined on a time and material basis. The District currently estimates the cost to be about \$700.

5. WORKSHOP COMMENT

Is the District going to allow an engine to operate for additional hours of maintenance and testing because of equipment breakdown above the emergency engine's permitted limit for maintenance and testing hours? If so, what procedure must an owner/operator follow to get these additional hours approved?

DISTRICT RESPONSE

The amendments to the ATCM added to the definition of maintenance and testing additional hours of operation to perform testing on an engine that has experienced a breakdown or failure during maintenance testing and allows these hours not to be counted towards the maximum allowable annual hours of operation, upon District approval. The District will approve additional hours, above permit limits, for maintenance and testing on a case-by-case basis. Information that will be used in making this decision may include current maintenance and testing hours used to

date, other regulatory requirements, flexibility in current maintenance schedule, and history of previous requests.

Notify the District's Compliance Division at (858) 586-2650 as soon as possible after a failure occurs. This notification will begin the District's case-by-case determination process.

6. WORKSHOP COMMENT

There is a potential conflict between District permitted maintenance and testing hours and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements if an engine experiences a failure during maintenance and testing. Has the District considered allowing additional maintenance and testing hours for health care facility engines subject to JCAHO requirements that experience a breakdown during maintenance and testing?

DISTRICT RESPONSE

JCAHO requirements will be considered by the District in making a case-by-case determination in allowing additional maintenance and testing hours above the engine's permit limits. Another option is to purchase a cleaner engine or install add-on air pollution control equipment to increase permitted maintenance and testing hours. Owners or operators at health care facilities may request up to 40 hours per year for maintenance and testing. See also response to Comment No. 5 and Comment No. 3.

7. WORKSHOP COMMENT

Does the District plan on requiring permits for engines rated below 50 brake horsepower (bhp) since the ATCM applies to new engines below 50 bhp?

DISTRICT RESPONSE

At this time, the District is not planning on requiring permits for engines rated below 50 bhp. The ATCM restricts the sale of new engines rated equal to or less than 50 bhp that do not meet the most stringent off-road emissions standards for an engine of the same maximum rate power. Since this is a point of sale restriction, the District does not foresee the need to require permits. Sellers of engines rated less than or equal to 50 bhp must submit an annual report to ARB containing engine sales information.

8. WORKSHOP COMMENT

The ATCM modifications added an exemption that allows the sell through of engines from a previous Tiered certification standard to be sold for up to 6 months after the Tier standard changes. It is unclear why this modification was necessary because the emission standards do not require a tiered engine. Does this mean that a "new" engine has to meet the current tiered engine standard? How does the sell through provision effect requirements for "new" engines?

DISTRICT RESPONSE

The commenter is correct that the emission standards do not require a current tiered engine for “new” engines as long as the engine meets the diesel PM standard specified. For a “new” emergency engine, the diesel PM must be equal to or less than 0.15 g/bhp-hr or meet the current off-road Tiered engine standard, whichever is more stringent. Currently, 0.15 g/bhp-hr is equivalent to or less than the current PM off-road engine standard (Tier 3). However, when Tier 4 engines become available, the Tier 4 standard will be more stringent than 0.15 g/bhp-hr and the sell through provision modification will allow Tier 3 engines to be sold for 6 months after the standard changes.

9. WORKSHOP COMMENT

How did ARB establish the diesel PM emission rate standards that are specified in the ATCM?
How do these standards relate to Tiered engine standards as referenced in the ATCM?

DISTRICT RESPONSE

ARB established the diesel PM emission rate standards specified in ATCM by reviewing available control technology and considering diesel PM health risk and cost of add-on air pollution control equipment. The commonly referred to “tiered” engine standards referenced in the ATCM are the federal and State standards for off-road compression ignition engines. This ATCM applies to stationary compression ignition engines. When ARB developed this ATCM, there were no federal standards for stationary compression ignition engines, so the off-road engine standards were used as guidance for determining what emission rates are technologically feasible.

10. WORKSHOP COMMENT

Does an engine owner or operator have to continuously prove that their engine complies with the diesel PM emission rate standard or only when compliance is initially established during permitting?

DISTRICT RESPONSE

In general, the District will not require ongoing demonstrations to verify that an engine complies with the emission rate standard. In specific situations, the District may find it necessary to require a demonstration that a specific engine meets the emission limit. This is more likely to occur with a prime use engine, than an emergency engine. If an emission demonstration or source test is required by the District, it will be clearly stated in an Authority to Construct or Permit to Operate. The EPA and ARB engine certification processes includes a deterioration factor and requires manufacturer’s to certify emission levels for the useful life of the engine.

11. WORKSHOP COMMENT

How long does it take to receive a permit for a diesel engine from the time an owner or operator submits an application?

DISTRICT RESPONSE

District rules require permit applications to be processed within 6 months of receiving a complete application. The District's goal is to process complete applications within 3 months.

12. WORKSHOP COMMENT

The ATCM amendments allow the use of biodiesel fuel and biodiesel fuel blends. Does an application need to be submitted to the District if a facility wants to begin using biodiesel or a biodiesel blend in a stationary compression ignition engine?

DISTRICT RESPONSE

Yes, an application must be submitted to the District if an owner or operator wants to use biodiesel fuel or a biodiesel fuel blend in a compression ignition engine. The District requires an application for any change in emissions, and switching fuel may cause a change in emissions. Other District rules and regulations must also be evaluated for compliance with the use of biodiesel or a biodiesel blend.

13. WORKSHOP COMMENT

Does a blend of 20% biodiesel and 80% CARB diesel (B20) meet the definition of "CARB Diesel Fuel"? If so, does an application need to be submitted to the District to begin using B20 in stationary compression ignition engines?

DISTRICT RESPONSE

Yes, B20 meets the definition of "CARB Diesel Fuel" in the ATCM. An application must be submitted to the District to begin using B20 in permitted stationary compression ignition engines. See also response to Comment No. 12.

14. WORKSHOP COMMENT

Are the modifications made to the ATCM effective immediately or do we need to wait for a revised permit? Specifically, the fuel records retention condition and "ATCM reportable" conditions on the current permit.

DISTRICT RESPONSE

The ATCM modifications were effective on October 18, 2007. Current District policy is not to enforce permit conditions that conflict with the current effective version of the ATCM. Appropriate changes will be made to each permit during the annual permit renewal process.

15. WORKSHOP COMMENT

If a permit condition is violated, for example an engine exceeds its annual hours of maintenance and testing, is this still a violation even though the requirement to report the violation to the District has been removed?

DISTRICT RESPONSE

Yes, if an engine exceeds its annual hours of maintenance and testing, it is a violation of the permit condition and the ATCM. The ATCM modifications only eliminated the requirement that the owner or operator notify the District when this violation occurs.

16. WORKSHOP COMMENT

How does an owner or operator of an emergency engine prove what hours are testing and maintenance hours versus emergency hours?

DISTRICT RESPONSE

The hours should be recorded appropriately in the engine's logbook. This includes emergency hours with the nature of the emergency recorded, maintenance and testing hours, initial start-up testing hours, rolling blackout reduction program hours, and any other engine usages. Include as much information in the logbook as possible to assist a District inspector in verifying appropriate usage of the engine.

17. WORKSHOP COMMENT

If an emergency engine is used because of a facility self-created emergency, can internal documentation be used to prove emergency usage?

DISTRICT RESPONSE

Yes, internal documentation may be used to prove emergency usage. In order to qualify as emergency usage, the usage must meet the definition of "emergency use" in the ATCM. Additional questions or concerns regarding appropriate emergency usage may be directed to Gary Hartnett in the District's Compliance Division at (858) 586-2671, or by e-mail at Gary.Hartnett@sdcounty.ca.gov.

18. WORKSHOP COMMENT

Does this ATCM require retrofit and add-on air pollution control equipment to be installed on stationary diesel engines?

DISTRICT RESPONSE

Add-on air pollution control equipment is one compliance option for stationary diesel engines. This ATCM does not require add-on air pollution control equipment or retrofit for every engine. Specifically, most emergency engines may comply by limiting their annual hours of maintenance and testing or purchasing a newer cleaner engine without installing additional add-on air pollution control equipment.

RR:CB:jl
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