FREQUENTLY ASKED QUESTIONS REGARDING THE STATIONARY DIESEL ENGINE ATCM

California Environmental Protection Agency

Air Resources Board

Stationary Source Division
Emissions Assessment Branch

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TABLE OF CONTENTS

General Questions

1. Q: Why develop ATCMs for diesel-fueled engines?

A: In 1998, the Board identified diesel particulate matter (PM) as a toxic air contaminant (TAC). To reduce public exposure to diesel PM, the Board approved in 2000 the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan). Integral to this plan is the implementation of control measures to reduce diesel PM.

2. Q: What airborne toxic control measures (ATCMs) are being or have been promulgated for diesel engines and diesel fuel?

A: As of May 2006, the following ATCMs have been adopted to reduce emissions of diesel PM:

-Transit Buses
-Trash Trucks
-Stationary Compression Ignition Engines
-Transportation Refrigeration Units
-Portable Engines
-Idling School Buses
- Idling Limits on On-Road Trucks
-CA Low-Sulfur Diesel Fuel Regulations
-Auxiliary Diesel Engines and Diesel-Electric Engines Operated on Ocean-Going Vessels Within California Waters and 24 Nautical Miles of the California Baseline
-Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards
-On-Road Heavy-Duty Diesel Vehicles Operated by Public Agencies and Utilities

For more information on a specific adopted or planned measure, please visit the Diesel Risk Reduction Program webpage at http://www.arb.ca.gov/diesel/dieselrrp.htm, and the Diesel Fuel Program webpage at http://www.arb.ca.gov/fuels/diesel/diesel.htm.

3. Q: When was the ATCM for stationary engines promulgated and what does it regulate?

A: The ATCM for stationary diesel engines was adopted by the Board at the February 26, 2004, Board Hearing. On November 8, 2004, the Final Regulation Order for ATCMwas approved by the Office of Administrative Law and filed with the Secretary of State. The rulemaking became effective December 8, 2004.

The stationary ATCM is one of several ATCMs that were recently adopted by the Board to partially fulfill the goals of the Risk Reduction Plan. Stationary diesel engines emit about 950 tons per year of diesel PM. The engines are distributed throughout California, and many are located in urban centers. The ATCM is designed to minimize the public's exposure to diesel PM by establishing stringent operational requirements and emission limits for these engines.

4. Q: What are the effects of exposure to diesel particulate matter?

A: Because of the amount of emissions to California's air and its potency, diesel PM is by far the number one contributor to the adverse health impacts of TACs. Exposure to diesel PM may result in both cancer and non-cancer health effects. Non-cancer health effects from one or more of these compounds may include irritation to the eyes and lungs, allergic reactions in the lungs, asthma exacerbation, blood toxicity, immune system dysfunction, and developmental disorders.

5. Q: Who is affected by the ATCM?

A: Both private businesses and public agencies operating stationary prime and emergency standby diesel engines in California will be affected by the ATCM. Emergency standby engines are those that are used only when normal power or natural gas service fails or when needed for fire suppression or flood control. Prime engines are those that are not used for emergency standby purposes. Examples of businesses that potentially will be affected include private schools and universities, private water treatment facilities, hospitals, power generation, communications, broadcasting, building owners, agricultural production, banks, hotels, refiners, resorts, recycling centers, quarries, wineries, dairies, food processing, and manufacturing entities. A variety of public agencies will also be affected including military installations, prisons and jails, public schools and universities, and public water and wastewater treatment facilities.

6. Q: What are the operating requirements and diesel PM emission standards of the ATCM?

A:

➢ **New Stationary Diesel Engines > 50 HP (Installed and permitted on or after January 1, 2005)**

Emergency Standby	Prime	Agricultural
The more stringent of • Diesel PM limit of ≤ 0.15 g/bhp-hr, or • Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating; and • ≤ 50 hours per year for non-emergency operation. OR The more stringent of • Diesel PM limit of ≤ 0.01 g/bhp-hr, or • Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating; and • 51 to 100 hours per year for non-emergency operation (upon District approval)	The more stringent of: • Diesel PM limit of ≤ 0.01 g/bhp-hr; or • Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating	The more stringent of: • Diesel PM limit of ≤ 0.15 g/bhp-hr; or • Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating

➢ **In-Use Stationary Diesel Engines > 50 HP (Installed or permitted prior to January 1, 2005)**

Emergency Standby	Prime	Agricultural
• Emergency use: not limited by ATCM • Non-emergency use: - ≤ 20 hours/year: Not limited by the ATCM; - 21 to 30 hours/year: Diesel PM limit of ≤ 0.40 g/bhp-hr; - 31 to 50 hours/year: District approval and Diesel PM limit of ≤ 0.15 g/bhp-hr; - 51 to 100 hours/year: District approval and Diesel PM limit of ≤ 0.01 g/bhp-hr.	• Diesel PM limit of < 0.01 g/bhp-hr; or • Reduce Diesel PM emissions by 85%; or • Reduce Diesel PM emissions by 30% by January 1, 2006, and meet Diesel PM limit of 0.01 g/bhp-hr limit in 2011.	Not limited by the ATCM at this time but will continue to monitor and evaluate technical feasibility and cost-effectiveness of retrofit controls and emission reduction options.

➢ **New Stationary Diesel Engines ≤ 50 HP**

New stationary diesel engines less than or equal to 50 horsepower must meet the current Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating.

7. Q: What is the compliance schedule for in-use emergency standby and prime engines?

A:

Owns 3 or Fewer Engines			Owns 4 or More Engines					
Pre-1990 MY	1990 to 1996 MY	1996+ MY	Pre-1990 MY*		1990 to 1996 MY*		1996+ MY*	
1/1/2006	1/1/2007	1/1/2008	50%	1/1/07	30%	1/1/07	50%	1/1/08
			75%	1/1/08	60%	1/1/08	100%	1/1/09
			100%	1/1/09	100%	1/1/09		

***** Minimum percentage of engines required to comply by specified dates

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8. Q: What are the additional requirements of the regulation?

A: In addition to diesel PM emission standards and operating requirements, the ATCM establishes emission standards for hydrocarbons (HC), nitrogen oxides (NOx), non-methane hydrocarbons and NOx (NMHC+NOx), and carbon monoxide (CO). The ATCM also requires the use of clean fuels. As of January 1, 2006, all new and in-use stationary diesel engines will be required to use CARB diesel fuel, alternative diesel fuels, and/or alternate fuels such as CNG. Alternative diesel fuels and CARB diesel fuel additives are allowed provided they meet the requirements of the Verification Procedure. In addition, the ATCM establishes recordkeeping, reporting, and monitoring requirements, emissions data requirements, and test method requirements. The compliance schedules defined in the ATCM are based on the number of engines owned or operated.

9. Q: How does the ATCM address Demand Response Program (DRP) engines, engines located near schools, and engines located in remote areas?

A: **DRP Programs** DRPs are programs for reducing electrical demand. Typically there is a contractual agreement between an engine owner/operator and an electric supply company to provide load reduction during periods of peak demand in return for economic compensation or benefit. The ATCM allows emergency standby engines to participate in two specific types of DRPs: interruptible service contracts (ISCs) and the San Diego Gas and Electric Company's Rolling Reduction Blackout Program (RBRP). Both of the ISC and RBRP engines are only allowed to operate under each program if blackouts are imminent or already triggered. These engines are also subject to more stringent diesel PM emission limits and limits on the total annual hours of DRP operation.

Engines Located Near Schools The ATCM restricts the operation of emergency standby diesel-fueled engines located within 500 feet of a school. These engines are **not** permitted to operate for non-emergency purposes (including operation for DRP purposes) between the hours of 7:30 am and 3:30 pm on days when school is in session, unless the engine can meet a diesel PM emission standard of 0.01 g/bhp-hr.

Engines Located in Remote Areas The ATCM gives each District the authority to delay the implementation of the ATCM's requirements for remotely located in-use prime engines until the year 2011. A remotely located engine is one that is at least one mile (1.0 miles) from the nearest receptor location. In order to qualify for the delay, the remotely located engine must also meet minimum risk-based limits.

Compliance

10. Q: If the PM standard is "grams per horsepower hour" (and not grams per rated horsepower hour) is there any guidance on determining the power for installed engines during a source test to determine compliance with the regulation?

A: The PM standard, and all of the other pollutant standards, expressed in grams per brake horsepower hour are based on ISO 8178 test cycle requirements, as referenced in section (i), Test Methods. A test cycle is a sequence of engine test modes each with a defined speed, torque and weighting factor. The results of the test cycle are expressed in g/bhp-hr. Installed engines that have been tested in accordance with ISO 8178 requirements have used a load bank to facilitate meeting the defined torque requirements.

11. Q: How are owners and operators of stationary diesel engines used in Demand Response Programs to demonstrate compliance?

A: It was the intent of ARB staff to require owners and operators to submit emissions data as necessary, to show compliance with emission standards defined in (e)(2)(F), *Operating Requirements and Emission Standards for New and In-Use Emergency Standby Diesel-Fueled CI Engines (>50 hp) Used in Demand Response Programs (DRP Engines).* Emissions data should be provided in accordance with the provisions of subsection (h), *Emissions Data*.

12(a). Q: For in-use emergency standby engines that comply with the ATCM by simply reducing their maintenance and testing hours to below 20 hours per year, is January 1, 2006, the first day you must record data?

A. No. The ATCM requires that a monthly log of usage information relating to the use of emergency standby engines be recorded starting on January 1, 2005. (see subsection (e)(4)(I), Reporting Requirements for Emergency Standby Engines)

12(b). Q: When will District's begin enforcing the 20 hour-per-year limit?

A. , The ATCM requires that owners be in compliance by January 1, 2006. However, depending on the specifics of their local ATCM-based rules and permitting programs, Districts may elect to enforce the hour limit prior to January 1, 2006. Both ARB staff and the Districts agree that the enforcement of the 20 hour per year limit should begin no later than January 1, 2007. (Note that the term "year" is meant to reflect a twelve-month period as defined by the district for compliance purposes. Depending on the district, it can mean calendar year, fiscal year, or a rolling twelve-month period.)

13. Q: Will "post-control" testing be adequate to demonstrate compliance if a non-certified control device is installed?

A: If an owner or operator installs a control device that has not been evaluated through the ARB's Verification Procedure (see http://www.arb.ca.gov/diesel/verdev/home/home.htm), the owner can show compliance with the ATCM's emission limits (e.g. 0.15 g/bhp-hr diesel PM limit) by source testing the engine after the control has been installed. Source testing should be conducted in accordance with the requirements of subsection (I), *Test Methods.* If compliance is with a percent reduction (e.g., 85% reduction of diesel PM emissions from baseline levels) then baseline, or "pre-control" testing may also be required.

14. Q: If a "certified" device is installed will compliance testing be required or can parameters be monitored to determine compliance?

A: Yes, parameter monitoring is an option a District can pursue to demonstrate ongoing compliance with the requirements of the ATCM. The ATCM only specifies the requirements for initial compliance. It is left to each District to determine the best approach for ensuring on-going compliance. The "certification" the commenter is referring to is actually correctly termed "verification" and is in reference to the verification of emission reduction claims in accordance with the ARB's Verification Procedure (see http://www.arb.ca.gov/diesel/verdev/home/home.htm).

15. Q: How often will an owner be required to source test a diesel engine to show ongoing compliance with the requirements of the ATCM?

A: The ATCM does not establish ongoing compliance testing requirements. It is left to each District's discretion to determine the appropriate approach for ensuring on-going compliance with the ATCM emission standards. ARB staff anticipates that most emergency standby engines will comply with the ATCM by limiting their maintenance and testing annual hours of operation to less than 20. For these owners, no emission testing is required. For those owners that must show on-going compliance with an emission standard, ARB recommends that District's use parameter monitoring (e.g. exhaust temperature, backpressure, exhaust opacity) as a screen in determining which owners would be required to source test to show compliance. The operating ranges of the parameters would be engine and control equipment specific. For example, to ensure the proper operation of the CleanAir Systems PERMIT™ diesel particulate filter, the engine's exhaust temperature must be at or above 300° Celsius for 30 percent of operating time or two hours, whichever is longer. (For a complete list of operating criteria for the PERMIT DPF go to http://www.arb.ca.gov/diesel/verdev/verifiedtechnologies/stationary.htm).

16. Q: Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the ATCM requirements are required to notify their District APCO and are subject to "district enforcement action." Does this in anyway preclude the District from issuing a variance?

A: No. The term "district enforcement action" as used in section (e)(4)(E), Notification of Non-Compliance, is not intended to preclude a District from issuing a variance for non-compliance. It is left to the discretion of each District to determine how violations of the ATCM, or local ATCM-based rules, are addressed.

Emission Standards

17. Q: How are Not-to-Exceed (NTE) limits, Family Emission Limits (FELs), Alternative NOx standards, and other provisions in the off-road engine certification standards going to be addressed as far as determining compliance with the requirements of the ATCM?

A: The ATCM in a number of places requires engines to meet the emissions standards for similar off-road engines. These referenced standards are defined in the Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423). Our goal in referencing these standards was to ensure that stationary engines were "as clean" as equivalent off-road engines. To that end, certified off-road engines that comply with the alternative standards (NTEs, FELs, Alternative NOx standards, etc.) meet the Off-Road Compression Ignition Engine Standards and therefore meet the related referenced standards of the ATCM.

18. Q: Is it an oversimplification to state that either an emergency standby diesel engine meets the diesel PM standards as defined subsection (e)(2)(B)3.a, the diesel PM standards and operating requirements for in-use emergency standby engines, with Verified Emission Controls or the engine is subject to the additional standards in (e)(2)(B) 3.b., the HC, NOx, NMHC+NOx, and CO standards? In other words, can an engine meet one of the (e)(2)(B)3.a. standards inherently as manufactured without an "emission control strategy" and thereby not trigger the "additional standards"?

A: Yes, an engine that is subject to the diesel PM standard as defined in subsection (e)(2)(B)3.a., that can meet the diesel PM standard without the addition of emission control equipment, or meets it through the installation of Verified control equipment (see http://www.arb.ca.gov/diesel/verdev/home/home.htm) for information on the Verification Procedure) is not subject to the additional standards defined in subsection (e)(2)(B)3.b. The primary purpose of the additional standards is to prevent the increase of non-diesel PM emissions resulting from the installation of diesel PM control equipment.

19. Q: In a number of places in the ATCM, a stationary diesel engine is required to "meet the current model year (or same model year) diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power." The Off-Road Compression Ignition Engine Standards are comp lex – there a certification standards, Family Emission limits, opacity standards, etc. If I wanted to take an existing stationary in-use engine and test it to show compliance with the appropriate Off-Road Standards what would that entail?

A: You would test the engine in accordance with the appropriate ISO 8178-4 test cycle, using one of the methods identified in subsection (i), Test Methods, or an alternative method approved by the District. The identified test methods require the weighted test results for each pollutant (NOx, HC, NMHC+NOx, and CO) to be compared to the appropriate exhaust certification standard. The exhaust certification standards can be found in Title 13, California Code of Regulations Section (13 CCR) Section 2423, Table 1 (see http://ccr.oal.ca.gov). If you meet the standard for that pollutant, you're in compliance with the Off-Road Standard for that pollutant.

Exemptions

20. Q: Exemption (c)(16) applies to in-use direct-drive fire pump engines. Does it only apply to fire pumps that provide water to sprinkler systems in buildings?

    A: No. Exemption (c)(16) applies to any direct drive fire pump that is used *solely* to pressurize a fire suppression system and operated the number of hours necessary to comply with the inspection, maintenance, and testing requirements of NFPA 25. ARB's intention in establishing exemption (c)(16) was to exempt in-use direct-drive fire pump assemblies that are operated only the number of hours necessary to comply with NFPA 25. Initially, we thought the only in-use fire-pump assemblies complying with NFPA 25 were located in buildings to pressurize sprinkler systems. WSPA and POTW's have come to us stating that they have in-use direct-drive pumps that are used solely for fire-suppression and are operated in accordance with NFPA 25. Our direction to them was that if they are used solely for fire suppression and are operated in accordance with NFPA 25, then they too would qualify for the exemption. However, if they are called into service for reasons other than fire suppression, i.e., POTW pumps that pressurize water lines due to a pipe break, they would not qualify for this exemption.

21. Q: Where can copies of the National Fire Protection Association (NFPA) Standards be found?

    A: NFPA Standards can be purchased through the following website: http://www.nfpa.org/index.asp.

22. Q: Can ARB provide assistance in identifying specific engines that may have been exempt by District Rules?

    A: Unfortunately, no. Our current workload and limited resources does not allow us to take on such a task.

Fuel

23. Q: Can ARB confirm that whatever "CARB Diesel" is available in the marketplace is the diesel fuel (not including alternative fuels) allowed for use by new engines after January 1, 2005, and by in-use engines after January 1, 2006?

    A: Regarding the implementation dates, the fuel requirements for both new and in-use engines do not start until January 1, 2006. The requirements for new engines and in-use prime engines differ from the requirements in-use emergency standby engines. New engines and in-use prime engines are allowed to use diesel fuels that meet the definition of CARB Diesel at the time of purchase. In-use emergency standby engines are required to add only diesel fuels that meet the definition of CARB diesel at the time of purchase. So, the commenter is correct in assuming that ATCM-compliant CARB diesel is the formulation of CARB diesel available in the marketplace at the time of purchase.

24. Q: When is it required that an owner or operator must only use 15 ppm sulfur CARB Diesel?

    A: An owner or operator that chooses to use CARB diesel to meet the fuel requirement of the ATCM is not required to use only 15 ppm fuel by a certain date. The switch to 15 ppm sulfur fuel will occur as the availability of 500 ppm fuel is phased out. In other words, an owner or operator can continue to purchase 500 ppm CARB diesel as long as it is legally available for purchase in California.

    On a related note, owners and operators that anticipate difficulty in meeting the fuel requirements of the ATCM, may request a delay in implementation of the fuel requirements (see exemption(c)(19))

25. Q: What can be done in the field to determine if the diesel fuel qualifies as CARB diesel?

A: Two approaches can be used to enforce the fuel requirement. One is to review fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine. These records must identify the fuel as CARB diesel. The other is to pull a sample of the fuel from the fuel tank and test it to determine if it meets the specifications of CARB diesel (see http://www.arb.ca.gov/testmeth/slb/fuel.htm for Test Methods for Determining Parameters of Diesel).

26. Q: When does CARB diesel change to 15 ppm sulfur?

A: Summer 2006. See the Rulemaking to Consider the Amendments to the California Diesel Fuel Regulations Final Regulation Order approved by OAL for more details (http://www.arb.ca.gov/regact/ulsd2003/ulsd2003.htm).

27. Q: If a fuel supplier records are used to show compliance with the ATCM fuel requirements, what description satisfies the CARB diesel requirement?

A: An owner or operator that is using CARB Diesel should obtain the following information:

- Identification of the fuel purchased as CARB Diesel. A written receipt from the CARB diesel supplier that states that the fuel is diesel fuel No.1 or No. 2, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils", as modified in May 1982, which is incorporated herein by reference, and that meets the specifications defined in title 13 CCR, sections 2281, 2282, and 2284.
- Amount of fuel purchased in gallons
- Date when fuel was purchased
- Signature of the owner or operator or representative of the owner or operator who received the fuel
- Signature of the fuel supplier indicating fuel was delivered

28. Q: If fuel is delivered from the supplier to a central receiving area – and not to each specific stationary engine fuel tank – how do I comply with the ATCM fuel requirement? What about if the fuel is delivered to an unmanned remote site?

A: Upon delivery to the central fuel tank, obtain the information described above upon delivery to the central receiving area. Identify on receipt the stationary diesel engines that will be using this fuel.

If engines are piped directly from the central fuel tank – the receipt to the central fuel tank is sufficient for documenting the use of a compliant fuel by the stationary engine.

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If the fuel is removed from the central tank is delivered to individual stationary engine fuel tanks at a later date, the owner or operator should maintain a log that documents that the fuel was removed from the central tank, the date it was removed and delivered, the amount removed and delivered, and a signature of the owner or operator or representative of the owner or operator that removed and delivered the fuel.

If the fuel is delivered to an unmanned remote site, the fuel supplier should provide the required information and signature to the owner or operator. Signatures can be handwritten or electronic. Card key identification can also be used in lieu of handwritten signatures. The owner or operator would then follow-up, verifying the fuel was delivered – which could require a visit to the remote site – and sign the invoice when satisfied that the delivery took place as indicated.

29. Q: Can B-20 (a 20% biodiesel and 80% CARB diesel blend) be marketed and sold in California as CARB Diesel?

A: Yes, it can be sold or marketed as CARB diesel fuel provided the biodiesel blend meets CARB specifications for aromatic and sulfur content (13 CCR, sections 2281, 2282. CCR sections are found at

http://www.oal.ca.gov/) and meet ASTM D975 for diesel fuel as required by the Division of Measurement Standards (DMS website: http://www.cdfa.ca.gov/dms/).

30. Q: I currently operate a stationary diesel engine on a 100% non-diesel fuel (e.g. B-100). How does the stationary ATCM impact me?

A: *For engines that were using 100% non-diesel fuels prior to the ATCM becoming operative, December 8, 2004, they can continue using the 100% non-diesel-fuel*. These engines were not diesel-fueled engines at the time the ATCM became operative and are therefore not subject to the ATCM's fuel requirements, emission standards and operating limits.

For engines that were using diesel fuel on or after the ATCM became operative - and started using 100% non-diesel fuels after ATCM became operative - those engines must STOP using the 100% non-diesel fuel, unless it has been Verified. As of March 16, 2005, no alternative diesel fuels have been verified in accordance with the ARB's Verification Procedure (for more on the Verification Procedure, go to http://www.arb.ca.gov/diesel/verdev/home/home.htm). One of the primary reasons for requiring the alternative diesel fuels to go through the Verification Procedure is to evaluate multi-media impacts.

However, all stationary compression ignition engines are required to submit to their District APCO specific information on the stationary engine, the fuel it uses, and how it is used. This information will be used to improve the statewide engine inventory. This information is required to be submitted to the District APCO by no later than July 1, 2005.

Engine Sales

31. Q: If an owner sells an engine for salvage is the owner responsible for the engine complying with new engine standards?

A: No. The new engine standards apply only engines sold *for use* in California.

32. Q: Would an engine that is sold to a rental operation be considered a portable engine?

A: It depends on how it is ultimately used. For example, if a gen-set is rented by a facility and is operated as a stationary engine, i.e., operated for over 12 consecutive months and remains at one location at the facility for the 12 month period, then that engine would be subject to the requirements of the ATCM. If it is rented as a portable engine, i.e., rented to more than one facility during a 12 month period, it would not meet the definition of a stationary engine and would be considered portable.

33. Q: If an engine that is less than 50 hp is sold outside of California, but then returns to California, is the original seller responsible for meeting the standard?

A: No. The ATCM does establish emission standards that must be met by the sellers of engines less than 50 hp and sellers agricultural engines greater than 50 hp. A "seller" is a person who sells an engine directly to an end-user. An end-user is any person who purchases an engine *for operation in California*. It would be unreasonable to require the seller to be responsible for an engine originally sold to an end-user outside California.

34. Q: If an ATCM-compliant engine that is greater than 50 hp and currently meets the in-use engine requirements is moved from California to another state and operated in that state, and then moved back to California to operate again as a stationary engine, is the owner now required to meet the new engine standards upon re-installation at a California facility?

A: Yes. A new engine is one that is installed at a facility after January 1, 2005. The engine in the above scenario is required to meet the new engine standards upon re-installation at the old California facility or installation at a new California facility.

Seller Requirements (< 50 hp and new agricultural engines)

35. Q: Whom do sellers send reports to at ARB?

    A: Sellers should send their reports to the following address:

    E-Mail: Erik White, Manager of the Technical Analysis Section, ewhite@arb.ca.gov

    Regular Mail: Air Resources Board, P.O. Box 2815, Sacramento, CA 95812, Attention: Erik White

36. Q: Is the standard the current model year certification level, as it appears to say in the text in (e)(3), *Emission Standards for New Stationary Diesel-Fueled CI Engines (<50 hp)*, or the engine's model year certification level as it says in Table (6)?

    A: Engines that are less than 50 hp sold for use in California must meet the *current* model year certification level for off-road engines that have the same maximum rated power.

Portable versus Stationary

37. Q: Is a portable engine that remains at one facility for more than 12 months subject to the requirements of the stationary engine ATCM?

    A: No, not necessarily. It is only considered stationary if it remains in one location (or footprint) at the facility for more than 12 months. Keep in mind that deliberate circumvention of the stationary ATCM requirements by moving an engine is not allowed. So a portable engine that is moved within a facility for the sole purpose of avoiding the stationary engine requirements is subject to district enforcement action. Defining when movement of an engine is considered by the District as circumvention, and when it is not, can be less than obvious. Some districts have addressed this issue by requiring owners to define the "legitimate business purpose" for moving a stationary engine.

Reporting Requirements

38. Q: Are there any reporting requirements for prime engines?

    A: Yes. Owners and operators of prime engines are required to submit to their District information on the engine and how it is used in accordance with the requirements of (e)(4)(A)3., and information on the control strategy that they choose to comply with in accordance with (e)(4)(A)4.

39. Q: What forms or format would ARB expect the reports on data submitted from the Districts? When will ARB ask for these reports?

    A: The ATCM requires facilities to submit diesel engine information to the district by July 1, 2005, and this information is passed on to ARB shortly thereafter. A spreadsheet with all of the data fields required to be reported has been created so that facilities may submit data to districts in a standard electronic format. The current draft of this spreadsheet can be found at http://www.arb.ca.gov./ab2588/diesel/spreadsheet.xls. Any format that provides the required data fields may be used at the discretion of the district.

Test Method

40. Q: When will a practical field test method for diesel particulate be available?

A: ARB staff cannot at this time give a specific date as to when a quicker and less expensive test method will be available. Recently, ARB staff approved a research project with the objective of developing a short, relatively inexpensive test method for measuring in-use PM emissions from stationary engines in the field. This short test will be based on the current Front Half CARB Method 5 sampling procedures. This method would include a modification of existing filter-based PM measurement methods. A successful short test will correlate with the current off-road diesel engine certification test as specified in CFR/ISO, and also correlate with variants of the Full CARB Method 5 test procedure (the Front Half Method 5 and the filter-only portion of the Front Half Method 5).

A summary of the research proposal can be found at the following website location, http://www.arb.ca.gov/research/rsc/12-13-04/dec04adv.pdf, item number 8.

Verified Emission Control Systems

41. Q: When are more verified emission control strategies for stationary sources going to be available? How many have been submitted for each control level (Level 1,2, 3)?

A: As of February 10, 2006, the following are the current verified technologies listed on ARB's Diesel Emission Control Strategies Verification for Stationary Engines website:

- Level 3 – 85 Percent or greater reduction in particulate Matter
  - Verification for **CleanAir Systems** **diesel particulate filter** (DPF), PERMIT™, for use on stationary emergency generators.
  - Conditional verification for **MIRATECH Corporation** diesel particulate filter (DPF) combiKat® CBS Particulate Trap, for use on stationary emergency generators.
- Level 2 – 50 Percent or greater Reduction in particulate Matter
  - ARB has verified Level 2 verification for **Rypos, Inc.** Active Diesel Particulate Filter (ADPF) diesel particulate filter for 1996 to 2006 diesel engines certified to Tier 1, 2, or 3 PM emission rate used in off-road stationary emergency standby applications operating on CARB Diesel fuel.

For more detailed information such as the Executive Orders, compatible engines, and operating criteria for these technologies go to the following website: http://www.arb.ca.gov/diesel/verdev/verifiedtechnologies/stationary.htm.

42. Q: Can ARB provide a list of control strategies currently in the verification procedure?

A: ARB cannot provide a list of control strategies currently in the verification process due to confidentiality issues.

43. Q: Can ARB provide a list of equipment approved for both 30% diesel PM emission control and 85% diesel PM emission control?

A: ARB currently provides information on all verified control technologies at the following website: http://www.arb.ca.gov/diesel/verdev/home/home.htm.

44. Q: The term "emission control strategy" is defined in a very broad sense to include virtually any design feature of an engine that reduces emissions. Because (e)(2)(B)3.a establishes only PM emission standards, (e)(2)(B)3.b must refer to "emission control strategies" (ECS) that reduce only PM emissions. But, can a technology that arguably targets non-PM emissions also be a unverified strategy that triggers the additional standards? As an example, suppose an engine application confirms that the engine meets the 21-30 hour PM standard, but its ECS (turbocharge) is not verified under 13 CCR. If I assume that turbocharging is an ECS, which is a reasonable construction of (d)(68), the additional standard (NOx) in section 2423 (tier I) would apply. But, in this case, the engine does not meet the tier I standard, thus the engine would either have to accept a 20 hour limit for maintenance and testing or get a new engine. Construing the ATCM in this fashion is it would reduce emissions as newer engines would be required, or else less maintenance and testing would occur. Yet, is this construction flawed or proper?

A: The purpose of the "Additional Standards" requirements as defined in (e)(2)(B)3.a is to guard against the increase of NOx, HC, CO emissions when non-Verified diesel PM emission control strategies are employed to reduce diesel PM emissions from in-use emergency standby engines. In the example given, the in-use turbocharged engine in its current OEM configuration meets the diesel PM standard. The "Additional Standards" requirements would not be triggered since the engine was not modified.

If the in-use engine was modified to meet a diesel PM emission standard, the "Additional Standard" requirements would only be triggered if the emission control strategy was not Verified (for more on the Verification Procedure, go to http://www.arb.ca.gov/diesel/verdev/home/home.htm). The reason for this is because Verified Devices must conform to the NOx, HC, and CO requirements identified in the Verification Procedure. Non-Verified diesel PM control strategies must meet the appropriate off-road certification standard (with Tier 1 standards as a backstop), or must not increase emissions of CO, HC, or NOx by more than 10% (see section (e)(2)(B)3.b.).

AB 2588

45. Q: When is the planned adoption date for changes to AB 2588 that will expand the program applicability to include most diesel engines?

A: The Air Resources Board will consider amendments to the AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidelines Regulation no earlier than September 2006. A new reporting threshold for diesel engine facilities will be adopted, along with a streamlined evaluation process for facilities with diesel engines. Further questions regarding this subject should be directed to Chris Halm, Staff Air Pollution Specialist, Community Health Section, at (916) 323-4865 or chalm@arb.ca.gov.