



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OCT 06 2008

Mr. Ray Kammel  
CEO  
Truck Emission Control Technologies Inc.  
155 Factory Road  
Michigan Center, MI 49254-1009

OFFICE OF  
AIR AND RADIATION

Dear Mr. Kammel:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for placement of Truck Emission Control Technologies Inc's (TECT's) CAT 3126 PM & NOx Reduction System (PM/NOx 3126) on the National Clean Diesel Campaign's Emerging Technologies List. Based on our evaluation of the application and the test plan, EPA has determined the PM/NOx 3126 meets the requirements of the Diesel Emission Reduction Program Provisions under the Energy Policy Act of 2005 to qualify as an emerging technology. Effective from the date of this letter, the PM/NOx 3126 will qualify as an emerging technology for one year with a possible extension of an additional year. For more information on the general requirements of an emerging technology, please see Attachment A.

Based on EPA's review of the information and data provided, your technology is approved for use in Emerging Technology applications on the following categories of engines and/or vehicles provided all of the required operating criteria are met as described below:

On-highway Caterpillar 3126 model engines from model years 1998 to 2003 for engine families WCPXH0442HRK, XCPXH0442HRK, XCPXH0442HSK, YCPXH0442HRK, 1CPXH0442HRK, 2CPXH0442HRK and 3CPXH0442HBX.

The projected emission reduction levels for this technology, based on the information and data provided by the manufacturer, are listed in the table below. The assigned emission levels may be adjusted based on the results of verification testing.

Technology	Particulate Matter (PM) %	Carbon Monoxide (CO) %	Hydrocarbons (HC)%	Oxide of Nitrogen (NOx) %
CAT 3126 PM & NOx Reduction System	50	70	60	40

The following operating criteria must be met in order for appropriately retrofitted engines to achieve the aforementioned emissions reductions:

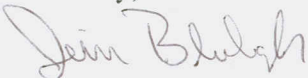
1. Prior to installation, TECT will review vehicle operating conditions for each installation and perform data logging of exhaust temperatures and back pressures to determine acceptable operating criteria.
2. The TECT CAT 3126 PM & NO<sub>x</sub> Reduction System (PM/NO<sub>x</sub> 3126) requires installing an exhaust pipe of about 10 feet long to be followed by a thermal stabilizer, then the oxidation catalyst. The maximum exhaust temperature before the particulate converter should not exceed 400°C, and the temperature may not exceed 430°C for more than two minutes.
3. Each installation will be equipped with a monitoring system that displays warning light(s) visible to the operator for high temperature, high back pressure and system abnormalities. The monitoring system will also store diagnostic error codes related to system malfunctions. For a minimum of two weeks after installation, TECT will record data and evaluate operation to confirm acceptable operating conditions.
4. TECT will provide an operating manual and conduct an 8-hour training session addressing operability, trouble shooting, installation and maintenance procedures.
5. The engine must be operated with fuel that contains no more than 15 ppm sulfur.
6. The engine must be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
7. The vehicle must not be equipped with a crankcase oil burning system.
8. Blending of lube oil with fuel is prohibited with this product.

Prior to verification testing, TECT is required to provide data logging results and detailed operating records from in-use vehicle operation. Prior to final verification, TECT is required to review and revise, if necessary, the operating criteria after the evaluation of the in-use operations.

The primary goal of the Emerging Technology program is to support early deployment of new technologies that will reduce diesel emissions from the existing fleet. This program provides an opportunity for manufacturers to obtain feedback from fleet partners on their technology while it is in-use. In addition, manufacturers are expected to pursue full EPA verification during the time frame their technology is on the Emerging Technology List.

Thank you for participating in EPA's National Clean Diesel Campaign. If you have any questions or comments, please contact Kuang Wei, of my staff, at (202) 343-9329.

Sincerely,



Jim Blubaugh, Manager  
Innovative Strategies Group  
Office of Transportation and Air Quality



## Attachment A

The following criterion outlines the general requirements for technologies included on EPA's National Clean Diesel Campaign's Emerging Technologies List:

- The amount of time a technology may remain on the ET list is 1 year.
- If a technology is fully verified within the first year, the technology will be added to the EPA Verified Technology List.
- A manufacturer may request an extension of up to one year to remain on the Emerging Technology List provided that the manufacturer has demonstrated to EPA it is pursuing full verification.
- If after the first year the technology has not been verified, EPA will review the status of the technology and determine if the technology qualifies for a second year. (Note: If it appears that the manufacturer has not made a significant attempt to complete verification and testing, the technology may NOT qualify for the second year).
- Once a technology is selected for use in an Emerging Technology project, that technology may be used for the entire project period even if the technology has been fully verified by EPA.
- Because an Emerging Technology is in the verification process, EPA may continue to evaluate the product, operation, and its impacts on emissions.
- Should EPA determine an Emerging Technology was misrepresented in the application, performance was not fully described, or because of concerns for safety and/or public health, at EPA's discretion, EPA may remove a technology from the Emerging Technology List, revise operating criteria, or impose other restrictions for use in Emerging Technology grant programs.
- Should a technology be removed from the Emerging Technology List without receiving verification status, that technology is no longer eligible for use on any Clean Diesel grant programs.
- The manufacturer or an authorized representative must install the technology as described to EPA and in accordance with the criteria described in the approval letter.
- Upon request, manufacturers must provide information to EPA on the installation, operation, and performance of Emerging Technologies used in Clean Diesel Grant programs.

Posting on the Emerging Technology List does not relieve the manufacturer from providing additional technical information and data to EPA. The manufacturer is expected to provide technical information upon request and to continue working with EPA and/or the California Air Resources Board (ARB) to complete the verification process.