



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 17 2005

OFFICE OF
AIR AND RADIATION

Mr. Marty Lassen
Manager,
Commercial Development and Marketing
Johnson Matthey
380 Lapp Road
Malvern, PA 19355

Dear Mr. Lassen:

The U.S. Environmental Protection Agency (EPA) has reviewed Johnson Matthey, Inc.'s request for adjusting the average exhaust temperature operating condition criteria on the CRT® and CCRT® particulate filters. Based on an evaluation of the data provided, EPA is granting this adjustment and will amend its Verified Products website to reflect this reduction in exhaust temperature requirements.

For the CRT filter an adjustment to the average exhaust temperature operating condition from 275 °C for 40% of the operating duty cycle down to 240 °C for 40% of the operating duty cycle.

For the CCRT filter an adjustment to the average exhaust temperature operating condition from 210 °C for 40% of the operating duty cycle down to 200 °C for 40% of the operating duty cycle.

The amended website wording for the operating criteria is enclosed. If you have any questions or comments, please contact Arman Tanman, of my staff, at (202)343-9326.

Sincerely,

A handwritten signature in cursive script that reads "Merrylin Zaw-Mon for".

Merrylin Zaw-Mon, Director
Certification & Compliance Division
Office of Transportation and Air Quality

cc: CARB

The CRT website wording for the operating criteria will read as follows:

The following operating criteria are required to be met when retrofitting highway engines with the CRT:

1. The engine exhaust temperature must be at least 240 °C for approximately 40 percent of the duty cycle. (As there may be significant variations from application to application, Johnson Matthey has indicated that they will review actual vehicle operating conditions and perform temperature data-logging prior to retrofitting a vehicle with their PM filter system to ensure compatibility.)
2. The engine's exhaust must produce a NO_x PM ratio of at least 8, with an optimum approaching 20. (Johnson Matthey has indicated they will make an assessment of the suitability of candidate engines, probably based upon the applicable emission standards or emission test data. Based on discussions with Johnson Matthey, it is our understanding that one can generally expect a heavy duty diesel engine in proper operating condition to maintain an acceptable NO_x/PM ratio over its operating life.)
3. The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
4. Johnson Matthey installs a backpressure monitor and high pressure indicator light on all vehicles equipped with a CRT.
5. The engine must be operated with a fuel that contains a sulfur content of no more than 30 ppm max.

The CCRT website wording for the operating criteria will read as follows:

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

1. The engine exhaust temperature must be at least 200 °C for approximately 40 percent of the duty cycle. (As there may be significant variations from application to application, Johnson Matthey will review actual vehicle operating conditions and perform temperature data-logging prior to retrofitting an engine with their CCRT filter system to ensure compatibility.)
2. The engine's exhaust must produce a NO_x/PM ratio of at least 8, with an optimum approaching 20. Johnson Matthey will make an assessment of the suitability of candidate engines, based upon the applicable emission standards or emission test data.
3. The engine should be well maintained and not consume lubricating oil at a rate greater

than that specified by the engine manufacturer.

4. Johnson Matthey must install a backpressure monitor and high pressure indicator light on all vehicles equipped with a CCRT.

5. The engine must be operated with a fuel that contains a sulfur content of no more than 30 ppm.

Johnson Matthey has indicated that there is a negligible (approximately 1%) fuel economy penalty with the use of this product.