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

JUL 20 2010

OFFICE OF
AIR AND RADIATION

Mr. Ajay Joshi
PM Systems Development Leader
Johnson Matthey
Emission Control Technologies
380 Lapp Road
Malvern, PA 19335

Dear Mr. Joshi:

The U.S. Environmental Protection Agency (EPA) previously verified Johnson Matthey's CEM™ Catalytic Exhaust Muffler/ DCC™ Diesel Catalytic Converter for 1991 through 2003 model year heavy-duty diesel engines. EPA has received your request for multiple extensions of the verification to include the following:

1. Include 1988-1990 model year engines
2. Increase of verified percentage reduction to 25% for Particulate Matter (PM) for a select category of engines (model years 1998-2003)
3. Include 2004-2006 model year engines that were certified without a diesel oxidation catalyst

Based on our evaluation of your in-use testing data and additional information provided, EPA hereby grants the following extension and percent reductions:

Technology	Engine Model/Application	Fuel, Max Sulfur (ppm)	Reductions (%)			
			PM	CO	NOx	HC
CEM™ Catalytic Exhaust Muffler and/or DCC™ Catalytic Converter	Highway, heavy- duty, non-urban bus, 4-cycle, non-EGR, model year 1988 – 1997 turbocharged or naturally aspirated diesel engines	15	20	40	n/a	50
CEM™ Catalytic Exhaust Muffler and/or DCC™ Catalytic Converter	Highway, heavy- duty, non-urban bus, 4-cycle, non-EGR, model year 1998 – 2003 turbocharged or naturally aspirated diesel engines	15	25	40	n/a	50
CEM™ Catalytic Exhaust Muffler and/or DCC™ Catalytic Converter	Highway, heavy- duty, non-urban bus, 4-cycle, EGR equipped, model year 2003, EGR and non-EGR, model year 2004 – 2006 turbocharged or naturally aspirated diesel engines certified without a diesel oxidation catalyst	15	20	40	n/a	50

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

1. The engine must be operated on ultra-low sulfur diesel fuel (ULSD).

2. The engine exhaust temperature must achieve at least 150 degrees C during its duty cycle.

3. The engine must be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.

4. The vehicle may not be equipped with an oil burning system and lube oil or other oils may not be mixed with the fuel.

5. The engine must not have been originally certified or equipped with a diesel oxidation catalyst or diesel particulate filter.

Johnson Matthey has indicated there is no fuel economy penalty with the use of this technology.

The newly assigned levels of reductions and extensions to Johnson Matthey's CEM™ Catalytic Exhaust Muffler and/or DCC™ Catalytic Converter verification will be posted on EPA's Retrofit Technology Verification website at: www.epa.gov/otaq/retrofit/retroverifiedlist.htm. Note the fuel use criteria will be updated to reflect the current use of ultra-low sulfur diesel fuel (15 ppm Sulfur).

Thank you for participating in EPA's National Clean Diesel Campaign. If you have any questions or comments, please contact Arman Tanman, of my staff, at (202) 343-9326.

Sincerely,

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