## Air Resources Board



Mary D. Nichols, Chairman 1001 I Street • P.O. Box 2815 Sacramento, California 95812 • www.arb.ca.gov



December 22, 2008

Mr. John Stekar Catalytic Exhaust Products Ltd. 30 Intermodal Drive, Units 19-22, Brampton, Ontario L6T 5K1 Canada

Dear Mr. Stekar:

The Air Resources Board (ARB) has reviewed the Catalytic Exhaust Products Ltd. application for the verification of the Dieselytic SXS-SC diesel particulate filter (DPF). Based on the evaluation of the data provided, the ARB hereby verifies that the Dieselytic SXS-SC DPF reduces emissions of diesel particulate matter (PM) by 85 percent or greater and does not increase nitrogen dioxide (NO<sub>2</sub>) emissions beyond the 2009 limit of 20 percent of the baseline oxides of nitrogen (NO<sub>X</sub>) emissions (Level 3 Plus) when in use in stationary prime and emergency standby (E/S) generators and pumps powered by certified off-road engines meeting 0.2 grams per brake horsepower hour (g/bhp-hr) diesel PM or less based on certification or in-use emissions testing. The Executive Order for the Dieselytic SXS-SC DPF, including a list of the applicable engine families, is enclosed.

The Catalytic Exhaust Products Ltd. Dieselytic SXS-SC DPF is the same product as the Süd-Chemie Inc. EnviCat-DPF®. The Süd-Chemie Inc. EnviCat-DPF® is verified as a Level 3 system for use on 1996 or later certified off-road engines meeting 0.2 g/bhp-hr diesel PM or less based on certification or in-use emissions testing and meet the U.S. EPA Tier 1, Tier 2, or Tier 3 off-road diesel engine certification standards powering stationary generators or pumps in prime or emergency-standby service. Also, the original Süd-Chemie Inc. EnviCat-DPF® verification emissions source test data supports a "Plus" designation since it complies with the 20 percent  $NO_2/NO_x$  limit.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <a href="http://www.arb.ca.gov">http://www.arb.ca.gov</a>.

The verification is valid provided the following operating criteria are met:

Parameter	Value
Application	Stationary Prime and E/S Power Generation and
	Prime and E/S Pumping
Engine Type	Diesel, with or without turbocharger, without
	Exhaust-Gas Recirculation (EGR), mechanically or
	electronically controlled, certified off-road engines
	meeting 0.2 g/bhp-hr diesel PM or less based on
	certification or in-use emission testing.
Minimum Exhaust Temperature	The engine must operate at the load level required
for Filter Regeneration	to achieve 400 degrees Celsius (°C) for a minimum
	of 30 minutes. Operation at lower temperatures is
	allowed, but only for a limited duration.
Maximum Consecutive Minutes	300 Minutes
Operating Below Passive	
Regeneration Temperature	
Number of Cold Start and 30	10
Minute Idle Sessions before	
Regeneration Required	
Number of Hours of Operation	2,000 when using diesel with <15 ppm sulfur.
Before Cleaning of Filter Required	
Fuel	California diesel fuel with less than or equal to
	15 ppm sulfur or a biodiesel blend provided that the
	biodiesel portion of the blend complies with ASTM
	D6751, the diesel portion of the blend complies
	with Title 13 (CCR), sections 2281 and 2282 and
	the blend contains no more than 20 percent
DM Varification Laval	biodiesel by volume.
PM Verification Level	Level 3 Plus Verification:
	PM – at least 85% reduction NO mosts language 2000 limit
	NO <sub>2</sub> – meets January 2009 limit

Since there may be significant variations from application to application, Catalytic Exhaust Products Ltd. must review actual operating conditions (duty cycle, baseline emissions, exhaust temperature profiles, and engine backpressure) prior to retrofitting an engine with a Dieselytic SXS-SC DPF to ensure compatibility.

Furthermore, the engine on which the Dieselytic SXS-SC DPF is installed should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer. Catalytic Exhaust Products Ltd. must install the Dwyer, Minihelic II,

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AN 14, or equivalent, backpressure monitor on all engines retrofitted with a Dieselytic SXS-SC DPF.

ARB hereby assigns the Dieselytic SXS-SC DPF the designated family name of:

## CA/CEX/2008/PM3+/N00/ST/DPF01

This identification number should be used in reference to this verification as part of the system labeling requirement.

Additionally, as stated in the Diesel Emission Control Strategy Verification Procedure, Catalytic Exhaust Products Ltd. is responsible for honoring their warranty (California Code of Regulations, Title 13, section 2707) and conducting in-use compliance testing (California Code of Regulations, Title 13, section 2709).

Should you have any questions or comments, please contact Mr. John Lee, Air Resources Engineer, at (916) 327-5975.

Sincerely,

/s/

Robert D. Fletcher, Chief Stationary Source Division

**Enclosure** 

cc: Hannu Jääskeläinen 520 Evered Ave.

Ottawa, Ontario K1Z 5K8

Canada

John Lee

Air Resources Engineer Control Strategies Section