



**Linda S. Adams**  
Secretary for  
Environmental Protection

# Air Resources Board

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**Mary D. Nichols, Chairman**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



**Edmund G. Brown Jr.**  
Governor

June 30, 2011

Mr. Eric Latino  
President, Global Emissions Systems, Inc.  
1650 McEwen Drive  
Whitby, Ontario, L1N 0A2  
Canada

Dear Mr. Latino:

The Air Resources Board (ARB) has reviewed the Global Emissions Systems, Inc. (GESi) application for the verification of the GESi<sup>®</sup> 6000DPF Diesel Particulate Filter (DPF) System and determined that the GESi<sup>®</sup> 6000DPF System is the same product as the Süd-Chemie Inc. EnviCat-DPF<sup>®</sup>. Since the Süd-Chemie Inc. EnviCat-DPF<sup>®</sup> is an ARB verified Level 3 Plus system based on the evaluation of the same data as provided for the GESi<sup>®</sup> 6000DPF System verification application, ARB hereby verifies the GESi<sup>®</sup> 6000DPF System as a Level 3 Plus system for the same control group.

The GESi<sup>®</sup> 6000DPF System 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 1996 or later 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 and meet the U.S. EPA Tier 1, Tier 2, or Tier 3 off-road diesel engine certification standards. The Executive Order for the GESi<sup>®</sup> 6000DPF System, including a list of the applicable engine families, is attached.

*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: <http://www.arb.ca.gov>.*

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California Environmental Protection Agency

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

<b>Parameter</b>	<b>Value</b>
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 for Filter Regeneration	The engine must operate at the load level required to achieve 400 degrees Celsius (°C) for a minimum of 30 minutes. Operation at lower temperatures is allowed, but only for a limited duration, as specified below.
Maximum Consecutive Minutes Operating Below Passive Regeneration Temperature	300 Minutes
Number of Cold Start and 30 Minute Idle Sessions before Regeneration Required	10
Number of Hours of Operation Before Cleaning of Filter Required	2,000 when using diesel with <15 ppm sulfur.
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 International D6751 (15 ppm sulfur), the diesel portion of the blend complies with CCR, title 13, sections 2281 and 2282 and the blend contains no more than 20 percent biodiesel by volume.
PM Verification Level	Level 3 Plus Verification: <ul style="list-style-type: none"> <li>• PM – at least 85% reduction</li> <li>• NO<sub>2</sub> – meets January 2009 limit</li> </ul>

Since there may be significant variations from application to application, GESi must review actual operating conditions (duty cycle, baseline emissions, exhaust temperature profiles, and engine backpressure) prior to retrofitting an engine with a GESi® 6000DPF System to ensure compatibility.

Furthermore, the engine on which the GESi® 6000DPF System is installed should be well maintained and not consume lubricating oil at a rate greater than that specified by

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the engine manufacturer. GESi must install a Dwyer Series AN2, or equivalent, backpressure monitor on all engines retrofitted with a GESi® 6000DPF System.

ARB hereby assigns the GESi® 6000DPF System the designated family name of:

CA/GES/2011/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, GESi® is responsible for honoring their warranty (CCR, title 13, section 2707) and conducting in-use compliance testing (CCR, title 13, section 2709).

Should you have any questions or comments, please contact Mr. Kirk Rosenkranz, Air Pollution Specialist at (916) 327-7843.

Sincerely,

/s/

Richard W. Corey, Chief  
Stationary Source Division

#### Attachments

cc: Mr. Alexander Sappok  
Sloan Automotive Laboratory  
Massachusetts Institute of Technology, Room 31-158  
77 Massachusetts Avenue  
Cambridge, MA 02139

Mr. Kirk Rosenkranz  
Air Pollution Specialist  
Control Strategies Section  
Emissions Assessment Branch