



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

OFFICE OF
AIR AND RADIATION

MAR 31 2017

John Popik, President
Nett Technologies Inc.
2-6707 Goreway Drive
Mississauga, Ontario
Canada L4v 1P7

Dear Mr. Popik:

The U.S. Environmental Protection Agency (EPA) Technology Assessment Center has reviewed your request for verification of the GreenTRAP NOVA 100 system, an active diesel particulate filter (DPF) system. Based on our evaluation of the verification application, the test data, and additional information provided, EPA hereby verifies that this technology reduces emissions of certain criteria pollutants by the percentages described in the table below.

The technology is approved for use on the following engines and/or vehicles provided all of the operating criteria are met as described below:

Technology	Engine Model/Application	Fuel, Max Sulfur (ppm)	Reductions (%)			
			PM	NO _x	HC	CO
Nett Technologies Inc. GreenTRAP NOVA 100 System	Non-road, 4-cycle, with or without EGR diesel engines between 175 – 470 hp (130 – 351 kw) ranges	15	90	0	90	90

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

- 1) The baseline engine must be in a certified configuration and operating on fuel with less than 15 ppm sulfur.
- 2) The engine exhaust temperature must achieve at least 250°C for 25% of the duty cycle. The active regeneration requires at least 250°C. If the engine exhaust temperature drops to below 250°C during or prior to regeneration, the active regeneration will be automatically stopped.
- 3) When the exhaust temperature is above 300°C for more than 30% of the engine operating time, the DPF passively regenerates and active regeneration is not required.

- 4) The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
- 5) The engine must **not** have been originally certified or equipped with a DOC or diesel particulate filter to EPA Tier 1, 2 or 3 standards.
- 6) The GreenTRAP NOVA 100 monitoring system will display messages for DPF cleaning after 2,000 hours of run time. DPF ash disposal handling must be complied in accordance with all applicable federal, state and/or local regulations governing waste disposal.
- 7) For constant speed engines in stationary applications, Nett Technologies Inc. is responsible for working with end-users in determining the engine's eligibility and compliance with applicable federal, state, and/or local regulations.

The active GreenTRAP NOVA 100 system uses hydrocarbon (diesel fuel) injection over a diesel oxidation catalyst to raise the exhaust temperature sufficiently for DPF regeneration. As a result, average fuel consumption may be increase by 2 to 3% with the GreenTRAP NOVA 100 system. With colder duty cycles, fuel consumption will be higher.

If the GreenTRAP NOVA 100 system is modified from the application description provided to EPA and representative of products tested, you must notify EPA immediately. This verification does not automatically confer to modified devices or devices that are similar to this original verification. EPA reserves the right to conduct testing of technologies submitted for verification. Verification approval and web listing may be revoked if the technology is modified from the device tested and described in the application or if it fails to meet requirements in EPA testing.

Information on the GreenTRAP NOVA 100 system, percent reduction, and applicable engines will be posted on the EPA's Verified Technologies List website at: <http://www.epa.gov/cleandiesel/verification/verif-list.htm>. As you know, Nett Technologies Inc. will be responsible for completing the required in-use testing program and for submitting all in-use testing data to EPA as outlined in EPA's in-use test methods. The in-use GreenTRAP NOVA 100 system must comply with all Clean Air Act and Greenhouse Gas regulations.

Thank you for participating in EPA's Technology Assessment Center Verification Program. If you have any questions or comments, please contact Kuang Wei, of my staff, at (202) 343-9329.

Sincerely,



Karl Simon, Division Director
Transportation and Climate Division
Office of Transportation and Air Quality