



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

DEC 13 2013

OFFICE OF
AIR AND RADIATION

Mr. Gary Simons
Donaldson Company, Inc.
1400 West 94th Street
Minneapolis, MN 55431

Dear Mr. Simons:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for verification of the Donaldson Company, Inc. (Donaldson) Semi-Active Electric Diesel Particulate Filter for Non-Road Applications (NR-SEF) System. Based on our evaluation of the verification application, the test data, and additional information provided, EPA hereby grants verification.

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 |
| Semi-Active Electric Filter for Non-Road Applications (NR-SEF) System | Nonroad, model year 1996-2010, with power rating between 100 and 400 hp and particulate matter (PM) certification levels less than 0.25 g/bhp-hr | 15 | 90 | N/A | 95 | 90 |

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) of 15 ppm or less.
2. The engine must be a model year 1996-2010 nonroad engine with power rating between 100 and 400 hp and particulate matter (PM) certification levels less than 0.25 g/bhp-hr.
3. A Donaldson approved dealer will install the Donaldson Emissions Device Monitor with the NR-SEF System to constantly monitor backpressure and temperature on all vehicles equipped with this diesel particulate filter.
4. For active regeneration, owners are periodically required to plug in their NR-SEF System to the Regeneration Control Station.

5. The engine must be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer. Crankcase oil burning systems may not be used with this diesel particulate filter.
6. The vehicle may not be equipped with an oil burning system and lube oil or other oils may not be mixed with the fuel.
7. The engine must not have been originally certified or equipped with a diesel particulate filter.

Prior to sale, Donaldson must provide each prospective owner/purchaser of the NR-SEF System with a written estimate of the number of hours of vehicle operation that will typically elapse before regeneration is required. Donaldson must also provide, in writing, the length of time needed for a typical regeneration event.

Prior to sale, Donaldson must provide each prospective owner/purchaser of the NR-SEF System with a written estimate of the number and cost of Regeneration Control Station Assemblies required to support their systems.

Donaldson estimates that this device will incur no discernible fuel economy penalty when used in a compatible application. If the NR-SEF 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.

Information on Donaldson's NR-SEF System, percent reduction, and applicable engines will be posted on the EPA's Verified Technology List website at: <http://www.epa.gov/cleandiesel/verification/verif-list.htm>. Donaldson will be responsible for completing the required in-use testing program and for submitting all in-use testing data to EPA as outlined in EPAs in-use test methods.

Thank you for participating in EPA's Technology Assessment Center Verification Program. If you have any questions or comments, please contact Arman Tanman, of my staff, at 202-343-9326.

Sincerely,



Jim Blubaugh, Deputy Director
Transportation and Climate Division
Office of Transportation and Air Quality