



Matthew Rodriguez  
Secretary for  
Environmental Protection

# Air Resources Board

Mary D. Nichols, Chairman  
9480 Telstar Avenue, Suite 4  
El Monte, California 91731 [www.arb.ca.gov](http://www.arb.ca.gov)



Edmund G. Brown Jr.  
Governor

April 29, 2014

Reference No. 14-944-1938

Ms. Karen Szabo  
IMPCO Technologies Canada, Incorporated  
3030 South Susan Street  
Santa Ana, California 92704

Dear Ms. Szabo:

Using the *Verification Procedure, Warranty, and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines*, Title 13, California Code of Regulations, Sections 2700-2711 (Procedure), the Air Resources Board (ARB) staff reviewed IMPCO Technologies Canada, Incorporated's (IMPCO) application for conditional verification of the CLEARSKY Diesel Particulate Filter (DPF) for use only with Comfort Pro Auxiliary Power Units (APU). Based on an evaluation of the data provided, and pursuant to the terms and conditions specified below, ARB hereby finds that the CLEARSKY DPF reduces emissions of diesel particulate matter consistent with a Level 3 plus device (greater than or equal to an 85 percent reduction and compliant with the 2009 nitrogen dioxide standard). ARB also finds that the CLEARSKY DPF satisfactorily completed at least 33 percent of the durability demonstration period for off-road applications. Accordingly, ARB determines that the system merits conditional verification and, subject to the terms and conditions specified below, classifies the CLEARSKY DPF as a Level 3 plus system for Comfort Pro APU applications that use diesel engines. Engines for which the CLEARSKY DPF is verified, the verified parts list, verified labels, swapping and re-designation information, and other product information can be found here:

<http://www.arb.ca.gov/diesel/verdev/companies/impco/clearsky.htm>

The aforementioned conditional verification is subject to the following terms and conditions:

- The CLEARSKY DPF is conditionally verified for a period not to exceed two years from the date of this letter.

*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>.*

California Environmental Protection Agency

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- For the CLEARSKY DPF to be considered for full verification, IMPCO must complete all remaining requirements as specified in the letter Reference Number 14-944-1939 within 2 years of the date of this letter.
- Conditional verification is equivalent to verification for the purposes of satisfying the requirements of in-use emission control regulations.
- Only one system may be installed per engine.
- The engine must be manufactured by Kubota and have the model name Z482, model years 2005 through 2014.
- The engine must be in its original certified configuration.
- The engine must have a maximum power output rating of less than 11 horsepower.
- The application must be for Comfort Pro APU applications.
- The engine must be four-stroke.
- The engine must not have an original equipment manufacturer (OEM) diesel oxidation catalyst (DOC).
- The engine must not have an OEM DPF.
- The engine must not employ exhaust gas recirculation.
- The engine must be mechanically or electronically controlled.
- The engine must be naturally aspirated.
- The engine must be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
- Lubricating oil, or other oil, must not be mixed with the fuel.
- The product must not be operated with fuel additives, as defined in Section 2701 of Title 13, of the *California Code of Regulations* (CCR), unless explicitly verified for use with the fuel additive(s).

- The product must not be used with any other systems or engine modifications without ARB and manufacturer written approval.
- The other terms and conditions are specified on the following page.

It is also ordered and resolved that installation of the CLEARSKY DPF, manufactured by IMPCO Technologies Canada, Incorporated, 100 Hollinger Crescent, Kitchener, Ontario, N2K 2Z3, Canada, has been found not to reduce the effectiveness of the applicable vehicle pollution control system, and therefore, the CLEARSKY DPF is exempt from the prohibitions in Sections 38390 and 38391 of the *Vehicle Code* for installation on APUs using engines from the families on the website listed above. This exemption is only valid provided that the engines meet the aforementioned conditions.

The CLEARSKY DPF consists of the following major system components: a DPF, a heating element, a backpressure monitor, and a remote display module. The major components of CLEARSKY DPF system are identified in the parts list. The parts list and schematics of the approved product and engine labels are available on the website shown above. Channeling exhaust from a single engine through multiple CLEARSKY DPF systems, deployed in parallel or in series or any combination thereof, is also not valid under this conditional verification.

No changes are permitted to the device. ARB must be notified, in writing, of any changes to any part of the CLEARSKY DPF. Any changes to the device must be evaluated and approved in writing by ARB. Failure to do so shall invalidate this conditional verification.

Changes made to the design or operating conditions of the CLEARSKY DPF, as exempted by ARB, which adversely affect the performance of the vehicle's pollution control system, shall invalidate this conditional verification.

IMPCO must ensure that the engine and application meet all the terms of this conditional verification letter at time of system installation.

Marketing of the CLEARSKY DPF using identification other than that shown in this conditional verification letter or for an application other than that listed in this conditional verification letter shall be prohibited unless prior written approval is obtained from ARB.

This conditional verification is valid provided that installation instructions for the CLEARSKY DPF system do not recommend tuning the APU to specifications different from those of the APU manufacturer.

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A copy of this conditional verification letter must be provided to the ultimate purchaser at the time of sale.

This conditional verification does not apply to any CLEARSKY DPF system installed on an APU prior to sale or lease to an ultimate purchaser.

As specified in Section 2706(j) (Title 13, CCR) of the Procedure, ARB assigns each diesel emission control strategy a family name. The designated family name for the conditional verification as outlined above is:

**CA/IET/2014/PM3+/N00/AP/DPF01**

Additionally, as stated in the Procedure, IMPCO is responsible for recordkeeping requirements (Section 2702), honoring the required warranty (Section 2707), and conducting in-use compliance testing (Section 2709).

This conditional verification is valid provided that the diesel fuel used in conjunction with the system complies with Title 13, CCR, Sections 2281 and 2282, or U.S. EPA diesel fuel compliant with standards set forth in Title 40, *Code of Federal Regulations* (CFR), Part 80, for the applications covered by this conditional verification, and if biodiesel is used, the biodiesel blend shall be 20 percent or less subject to the following conditions:

- The biodiesel portion of the blend complies with the American Society for Testing and Materials specification D6751 applicable for 15 parts per million sulfur content.
- The diesel fuel portion of the blend complies with Title 13, CCR, Sections 2281 and 2282 or U.S. EPA diesel fuel compliant with standards set forth in 40 CFR Part 80 for the applications covered by this conditional verification.

Other alternative diesel fuels such as, but not limited to, ethanol diesel blends and water emulsified diesel fuel are excluded from this conditional verification.

Proper engine maintenance is critical for the proper functioning of the diesel emission control strategy. The owner and/or operator of the APU on which the diesel emission control strategy is installed is strongly advised to adhere to all good engine maintenance practices. Failure to document proper engine maintenance, including keeping records of the engine's oil consumption, may be grounds for denial of a warranty claim.

Use of system parts or replacement parts not authorized by IMPCO, may be grounds for denial of a warranty claim.

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IMPCO must ensure that the installation of the CLEARSKY DPF system conforms to all applicable industrial safety requirements.

The terms and conditions of this conditional verification must be satisfied regardless of where the system is sold in order for the system to be considered verified.

Systems sold as conditionally verified, or which carry an ARB-approved label, must satisfy all the terms and conditions of this conditional verification letter.

Systems conditionally verified in this letter shall conform to all applicable California emissions regulations.

The CLEARSKY DPF system must not be located over any occupied space (e.g., driver or passenger compartments) or any other location deemed unacceptable by IMPCO, and must not be installed in a way which would result in noncompliance with any applicable safety standards.

This conditional verification does not release IMPCO from complying with all other applicable regulations.

Violation of any of the above conditions shall be grounds for revocation of this conditional verification.

In addition to the foregoing, ARB reserves the right in the future to review this conditional verification letter and the exemption provided herein to assure that the exempted and conditionally verified add-on or modified part continues to meet the standards and procedures of Title 13, Sections 2222, et seq, and Sections 2700 through 2711, of the CCR.

Thank you for participating in ARB's diesel emission control strategy verification program. If you have any questions or comments, please contact Ms. Shawn Daley, Manager, at (626) 575-6972, or via email at [sdaley@arb.ca.gov](mailto:sdaley@arb.ca.gov).

Sincerely,



Annette Hebert, Chief  
Emissions Compliance, Automotive Regulations and Science Division

cc: (see next page)