State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER DE-07-001-11

Pursuant to the authority vested in the California Air Resources Board (CARB) by Health and Safety Code, Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code section 39515 and 39616 and Executive Order G-14-012;

This action relates to Verification under sections 2700 through 2711 of Title 13 of the California Code of Regulations (CCR):

Rypos, Inc.
Hybrid Diesel Particulate Filter (HDPF/C)

CARB staff has reviewed Rypos Inc.'s request for verification of their hybrid active diesel particulate filter and diesel oxidation catalyst system (Rypos HDPF/C). Based on an evaluation of the data provided, and pursuant to the terms and conditions specified below, the Executive Officer of CARB hereby finds that the Rypos HDPF/C reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to 85% reductions) (CCR, title 13, section 2702 (f) and section 2708) and complies with the CARB January 1, 2009, nitrogen dioxide (NO2) limit (CCR, title 13, section 2702 (f) and section 2706 (a)). Accordingly, the Executive Officer determines that the Rypos HDPF/C merits verification as a Level 3 Plus system for diesel engines on stationary emergency standby generators and emergency standby pumps using engine families listed in Attachment 1.

This verification is subject to the following terms and conditions:

- The engine must be used in a stationary application associated with emergency standby generators or emergency standby pumps.
- The engine must be:
    - Greater than 50 hp and model year 1996 or newer, certified to Tier 1, Tier 2, Tier 3, or Tier 4 Alt 20% NOx and PM standards, or;
    - Certified to Tier 4i standards with a rated hp between 50 and 75, or over 750.
- The engine must be a certified off-road or stationary diesel engine meeting 0.2 grams per brake horsepower hour (g/bhp-hr) PM or less based on certification or In-Use emissions testing (as tested on an appropriate steady state certification cycle outlined in the CARB off-road regulations – similar to ISO 8178 D2).
- The engine must not employ exhaust gas recirculation (EGR).
- The engine must not have a pre-existing oxidation catalyst.
- The engine must not have a pre-existing diesel particulate filter (DPF).
- The engine can be two or four-stroke.

- The engine can be turbocharged or naturally-aspirated.
- The engine must be certified for use in California or certified by the United States Environmental Protection Agency and the engine must be in its original certified configuration.
- Rypos, Inc. must review actual operating conditions (duty cycle, baseline emissions, exhaust temperature profiles, and engine backpressure) prior to retrofitting an engine with the HDPF/C to ensure compatibility.
- The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
- The other terms and conditions specified in Table 1 below.

Table 1: Summary of Conditions for the Rypos HDPF/C System

Parameter	**Value**
PM Verification Level	Level 3 Plus: • PM - at least 85% reduction • NO2 - meets January 2009 limit
Regeneration System	Active
Application	Stationary emergency standby generators or emergency standby pumps.
Engine Type and Size	• The engine must be: o Greater than 50 hp and model year 1996 or newer, certified to Tier 1, Tier 2, Tier 3, or Tier 4 Alt 20% NOx and PM standards, or; o Certified to Tier 4i standards with a rated hp between 50 and 75, or over 750. • The engine must be a certified off-road or stationary diesel engine meeting 0.2 g/bhp-hr PM or less based on certification or In-Use emissions testing (as tested on an appropriate steady state certification cycle outlined in the CARB off-road regulations – similar to ISO 8178 D2). • The engine must not employ exhaust gas recirculation. • The engine must not have a pre-existing oxidation catalyst. • The engine must not have a pre-existing diesel particulate filter. • The engine can be two or four-stroke. • The engine can be turbocharged or naturally-aspirated.

Parameter	Value
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% biodiesel by volume.
Minimum Exhaust Temperature for Filter Regeneration	Not Applicable (NA). Active diesel particulate filter (DPF).
Maximum Consecutive Minutes at Idle	NA. Active DPF.
Number of Cold Start and 30-minute Idle Sessions before Regeneration Required	NA. Active DPF.
Number of Hours of Operation Before Cleaning of Filter Required	Inspect every 1,000 hours and clean if needed.

The Rypos HDPF/C consists of a filter housing, electrical control circuit, and filter cartridges made of sintered metal fibers (referred to as an active sintered metal DPF), and a downstream diesel oxidation catalyst.

This Executive Order is valid provided that installation instructions for the Rypos HDPF/C do not recommend tuning the engine to specifications different from those of the engine manufacturer.

No changes are permitted to the device unless approved by CARB. CARB must be notified in writing of any changes to any part of the Rypos HDPF/C and these changes must be evaluated and approved by CARB. Failure to report any changes shall invalidate this Executive Order.

Changes made to the design or operating conditions of Rypos HDPF/C which adversely affect the performance of the engine's pollution control system shall invalidate this Executive Order.

No person shall alter, physically disable, disconnect, bypass, or tamper with an installed CARB verified diesel emissions control strategy, as outlined in title 13, CCR, section 2711(e).

Should CARB become aware that a design feature of a verified device is altered, physically disabled, disconnected, bypassed, or tampered on multiple units by independent persons, Rypos will be responsible to propose a design modification and recall plan to the Executive Officer to minimize existing and potential for future tampering of the verified device.

Marketing of the Rypos HDPF/C using identification other than that shown in the Executive Order or for an application other than that listed in the Executive Order shall be prohibited unless prior approval is obtained from CARB.

As specified in the Diesel Emission Control Strategy Verification Procedure (CCR, title 13, section 2706 (j)), CARB assigns each Diesel Emission Control Strategy a family name. The designated family name for the verification as outlined above is:

CA/RYP/2007/PM3+/N00/ST/DPF01

Additionally, as stated in the Diesel Emission Control Strategy Verification Procedure, Rypos, Inc. is responsible for honoring their warranty (CCR, title 13, section 2707), and conducting In-Use compliance testing (CCR, title 13, section 2709).

CARB reserves the right in the future to review this Executive Order and verification provided herein to assure that the verified add-on or modified part continues to meet the standards and procedures of CCR, title 13, section 2222, et seq and CCR, title 13, sections 2700 through 2711.

Systems verified under this Executive Order shall conform to all applicable California emissions regulations.

Violation of any of the above conditions shall be grounds for revocation of this Executive Order.

Executive Order DE-07-001-10 is hereby superseded and is of no further force and effect.

Executed at Sacramento, California, this 4th day of June 2025.

Richard Boyd, Chief, Transportation and Toxics Division