



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**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

October 19, 2011

Mr. Michael Porter  
Viscon California, LLC  
3121 Standard Street  
Bakersfield, California 93308

Dear Mr. Porter:

Thank you for your final application requesting verification of the emission reductions associated with your Viscon diesel fuel additive. The emission reductions were determined by the "Procedure for Verification of Emission Reductions for Alternative Diesel Fuels," pursuant to Title 13, California Code of Regulations, section 2700 through 2711. We are pleased to inform you that the use of Viscon diesel fuel additive has been approved as a Level 1 diesel emission control strategy, as specified in the attached Executive Order.

The Air Resources Board (ARB) staff has reviewed the emissions data submitted in your final application and has determined that the use of the Viscon diesel fuel additive reduces particulate matter emissions by equal or greater than 25 percent, while increasing oxides of nitrogen emissions by no more than 10 percent. Also, staff has determined that measurements of specified emissions result in no significant increase in toxic and hydrocarbon emissions at the dosage rate and estimated amount of additive use. Based on information from the final application, the expected statewide consumption of Viscon-treated diesel will be roughly 25,600 gallons per day or 9.3 million gallons per year.

Pursuant to the California Health and Safety Code, section 43830.8(a), your Viscon diesel fuel additive was subject to a multimedia evaluation, which was conducted by affected State agencies and coordinated by ARB staff. As required, the California Environmental Policy Council (CEPC) reviewed the multimedia evaluation and determined that there will be no significant adverse impacts on the public health or the environment from the use of Viscon-treated diesel fuel. Further, the CEPC agreed with the multimedia evaluation that it is appropriate that the Viscon-treated diesel fuel

*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

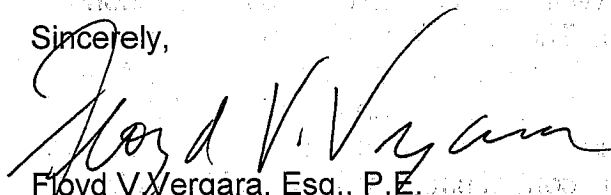
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consumption be limited to 450,000 gallons per day to assure that the incremental lifetime cancer risk associated with replacing current diesel with Viscon-treated diesel is less than one in a million. I have enclosed a copy of the CEPC resolution for your information.

Please note that the ARB's verification of emission reductions is subject to the conditions specified in the enclosed Executive Order DE-11-007. Violation of any of the conditions specified in the Executive Order will result in immediate revocation of this verification.

If you have any questions concerning your approved verification, please contact me at (916) 327-5986 or via e-mail at [fvergara@arb.ca.gov](mailto:fvergara@arb.ca.gov), or Mr. James M. Aguila, Manager, Substance Evaluation Section at (916) 322-8382 or via e-mail at [jaguila@arb.ca.gov](mailto:jaguila@arb.ca.gov).

Sincerely,



Floyd V. Vergara, Esq., P.E.  
Chief, Alternative Fuels Branch

Enclosures

cc: James M. Aguila, Manager  
Substance Evaluation Section

**State of California  
AIR RESOURCES BOARD**

**EXECUTIVE ORDER DE-11-007**

Relating to Exemptions under section 27156 of the Vehicle Code, and Verification under sections 2700 through 2711 of Title 13 of the California Code of Regulations

Viscon California, LLC (Viscon California)

Pursuant to the authority vested in the Air Resources Board (ARB) by Health and Safety Code, Division 26, Part 5, Chapter 2; and pursuant to the authority vested to the undersigned by Health and Safety Code section 39515 and 39616 and Executive Order DE-11-006;

WHEREAS, on May 16, 2002, ARB adopted the *Regulation for the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)* under Title 13, California Code of Regulations (CCR), sections 2701 through 2711, to ensure that in-use diesel emission control strategies (DECS) achieve real and durable particulate matter reductions to be verified as an option under ARB fleet regulations;

WHEREAS, under Title 13 CCR section 2702, the Verification Procedure requires a final application in support of the candidate diesel emission control strategy, including emission reduction testing, durability testing, and a field demonstration;

WHEREAS, Viscon California submitted a final application on November 8, 2010, which is incorporated herein by reference, for verification of its proprietary Viscon® additive, a blend of 99 parts CARB diesel fuel and one part of Ultra-High-Molecular-Weight Polyisobutylene, for off-road heavy-duty engines originally manufactured from model year 1985 to 1995 and horse power ratings between 175 to 300 (such as off-road agricultural tractors, loaders, graders, excavators, port cranes, and other industrial equipment);

WHEREAS, the Viscon California final application provided the appropriate emissions data to demonstrate that the Viscon® additive reduces emissions of diesel particulate matter (PM) consistent with a Level 1 strategy (greater than or equal to 25 percent reductions), while not increasing oxides of nitrogen (NOx) emissions by more than ten percent of the baseline emission level as specified under Title 13 CCR sections 2702(f) and 2706(b)(A)).

WHEREAS, Title 13 CCR, section 2710(f) also requires that diesel emission control strategies which rely on fuel additives, such as the Viscon® additive, must undergo an evaluation of the multimedia effects and obtain a finding from the California Environmental Policy Council (established under Public Resources Code section 71017) that the fuel additive will not cause a significant adverse impact on the public health and the environment, pursuant to Health and Safety Code section 43830.8.

WHEREAS, on August 17, 2011, the California Environmental Policy Council issued a Resolution with the finding that there will not be a significant adverse impact on public health or the environment, including air, water, or soil, that is likely to result from the above ground storage and limited use of Viscon® additive in California.

IT IS THEREFORE ORDERED, that the Executive Officer of the ARB (or his designee) hereby finds that the Viscon® additive merits verification and, subject to the terms and conditions specified below, classifies the use of Viscon® additive as a Level 1 strategy, for off-road applications;

BE IT FURTHER ORDERED, as specified in the DECS Verification Procedure, Title 13 CCR section 2706 (j), the ARB assigns each Diesel Emission Control Strategy a family name. The designated family name for the verification under this Executive Order is:

**CA/VIS/2011/PM1/N00/OF/FUEL2**

BE IT FURTHER ORDERED that the aforementioned verification is subject to the following terms and conditions:

Terms and Conditions

**Applicability:**

- The Viscon® additive is verified for use:
  - only when blended with CARB diesel, at the dosage specified below, and
  - only for use with off-road, heavy-duty compression-ignition engines, certified in California for off-road applications, which were originally manufactured from model year 1985 to 1995, inclusive. The approved class of off-road applications and equipment includes off-road agricultural tractors, loaders, graders, excavators, port cranes, and other industrial equipment;
- The engine using the Viscon® additive must have a horse power rating between 175 to 300, inclusive;
- The Viscon® additive is not verified for use in on-road vehicles, stationary engine applications, or other applications or model years not otherwise specified above as having been verified. For purposes of this verification, "on-road vehicle" means a motor vehicle that is designed to be driven on public highways and roadways and that is registered or is capable of being registered by the California Department of Motor Vehicles (DMV) under Vehicle Code sections 4000 et seq. – or DMV's equivalent in another state, province, or country; or the International Registration Plan. A vehicle covered under ARB's In-Use Off-Road Regulation, Title 13, CCR, section 2449 is not an on-road vehicle.;
- The other terms and conditions specified below;

**Viscon® Additive:**

- Viscon® is a fuel additive that, when delivered as a concentrate to end-users, shall be blended with CARB diesel in a ratio of 99 parts CARB diesel fuel and one part of Ultra-High-Molecular-Weight Polyisobutylene (PIB), by weight (sometimes collectively referred to herein as "Viscon concentrate");
- When the Viscon® concentrate is further blended by an end-user, as directed by Viscon California, with CARB diesel to its final blend, the resulting CARB diesel fuel blend (also referred to as "Viscon®-treated diesel fuel") shall have no more than 500 parts per million Viscon® concentrate (by volume), which equates to no more than 5 parts per million of PIB (by volume);
- Changes made to the chemical formulation, as exempted by the ARB, which adversely affect the performance of the vehicle's pollution control system, shall invalidate this Executive Order;
- No change is permitted to the Viscon additive mixing ratio, as specified above, unless first approved in writing by the Executive Officer. The California Air Resources Board must be notified in writing of any proposed changes. Failure to obtain ARB approval for such a change shall invalidate this Executive Order, and any sale of such unapproved Viscon® additive-treated diesel shall constitute a violation of this Executive Order;

**In-Use Compliance Testing:**

- Pursuant to the Diesel Emission Control Strategy Verification Procedure, Title 13, CCR section 2709 (a), Viscon California is responsible for conducting in-use compliance testing.
- The in-use compliance testing requirement may be satisfied by providing the ARB with results from an ARB approved quality control Viscon® additive sampling plan to demonstrate that the formulation of Viscon® additive supplied to the market is consistent with the chemical formulation provided in the final application submitted for the Viscon® additive;
- In-use compliance requirements are triggered when 6 million gallons of Viscon®-treated diesel fuel have been sold in California since this Executive Order was executed or 3 years since this Executive Order was executed, whichever comes first, or when the Executive Officer determines an alternative strategy is necessary based upon economic and engineering justifications provided by the applicant at the time the in-use compliance volume or time limit is triggered;
- Viscon California must submit a quality control Viscon® additive sampling plan for ARB approval no later than 60 days after meeting the in-use compliance testing trigger. The quality control Viscon® additive sampling plan must include, but not limited to: applicant identification, diesel emission control strategy family name, sampling protocol, sample testing and analysis protocol;

- Upon ARB approval of the quality control Viscon® additive sampling plan, Viscon California must conduct the sampling plan and report the results to the ARB within 60 days of the completion of the sampling plan.
- Viscon California must conduct a field sampling assessment of Viscon® -treated fuels to verify that the additized treat rate of diesel treated fuel in the market is consistent with the treatment rate disclosed in the final application (i.e., 5 ppm of PIB in Viscon® -treated CARB diesel fuel);

BE IT FURTHER ORDERED, that Viscon California must conduct a survey of end users and applications for the Viscon® additive to determine the required blending device and assist in the installation of the appropriate devices, as noted on the Viscon California website: (<http://www.visconusa.com/blending>, last accessed on October 6, 2011).

BE IT FURTHER ORDERED, that the marketing of Viscon® additive, using a brand name or identification other than that shown in this Executive Order or for an application other than those which have been verified in this Executive Order, shall be prohibited unless prior written approval is obtained from the ARB;

BE IT FURTHER ORDERED, pursuant to the Diesel Emission Control Strategy Verification Procedure, Title 13, CCR, section 2707, Viscon California is responsible for honoring their warranty requirements applicable to the Viscon® fuel additive;

BE IT FURTHER ORDERED, that in addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption and verification provided herein to assure that the exempted diesel fuel additive continues to meet the standards and procedures set forth in section 2222 et seq. and sections 2700 through 2711, Title 13, California Code of Regulations;

BE IT FURTHER ORDERED, that Viscon California must adhere to the provisions set forth in the August 17, 2011, Resolution approved by the California Environmental Policy Council (see Attachment 1), including but not limited to the following:

- Viscon California must submit quarterly reports to the Multimedia Workgroup for the first year after this Executive Order is executed and submit annual reports thereafter. The reports must provide California and national sales of Viscon® additive and Viscon® -treated diesel fuel, as well as identify all end users of the verified product in California.
- The multimedia evaluation finds that it is appropriate to limit the sale of Viscon® -treated diesel to 450,000 gallons per day to assure that the lifetime cancer risk attributable to replacing CARB diesel with Viscon® -treated diesel will be less than one in a million. In the event that the Viscon California plans to exceed the allowable 450,000 gallons per day sales (in California) limit or Viscon

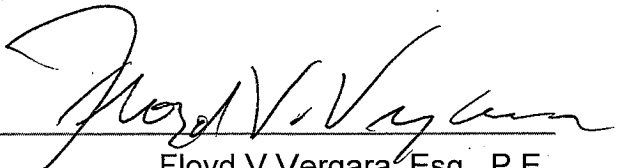
California actually reaches 405,000 gallons per day of sales in California, the California Air Resources Board must be notified in writing.

- The multimedia evaluation finds that Viscon® -treated diesel is not currently stored in underground storage tanks (USTs). In the event that Viscon® -treated diesel may be stored in USTs, it is appropriate for the use of Viscon® additive to be reviewed by the multimedia workgroup.

BE IT FURTHER ORDERED that violation of any of the above condition shall be grounds for revocation of this Executive Order.

BE IT FURTHER ORDERED that strategies verified under this Executive Order shall conform to all applicable California emission regulations.

Executed at Sacramento, California, this 19<sup>th</sup> day of October, 2011



Floyd V. Vergara, Esq., P.E.  
Chief, Alternative Fuels Branch  
Stationary Source Division