



California Energy Commission

DOCKETED

14-IEP-01

TN 74136

DEC 08 2014

National Biodiesel Board

605 Clark Ave.

PO Box 104898

Jefferson City, MO 65110-4898

(800) 841-5849 phone

(573) 635-7913 fax

National Biodiesel Board

1331 Pennsylvania Ave., NW

Suite 505

Washington, DC 20004

(202) 737-8801 phone

www.biodiesel.org

Renewable Hydrocarbon Diesel

With the introduction of renewable fuels into the marketplace, there are a number of qualities and properties that can be used to differentiate a number of these new products. Biodiesel is a specific product, also known as fatty acid methyl esters, which must meet the ASTM specifications D6751 in order to be blended into today's diesel fuel. The National Biodiesel Board (NBB) is the trade association representing most of the biodiesel producers here in North America. The NBB also represents a select number of producers that manufacture renewable hydrocarbon diesel. The NBB qualifies these producers, and differentiates their product, by requiring that their fuel must process renewable feedstocks into hydrocarbons similar to petroleum diesel fuel.

Unfortunately in today's marketplace, there is no uniform definition for renewable diesel, and many producers are introducing products into fuels that do not meet the current diesel fuel specifications. Within D975, diesel fuel is required to be a hydrocarbon, but allowed to include additives to improve performance or biodiesel up to 5% by volume. The difficulty with this requirement is that there is no currently approved test method to help determine that the fuel is strictly based upon hydrocarbon oils. The National Renewable Energy Laboratory and others are working upon such a method at this time.

While the composition of Renewable Hydrocarbon Diesel fuel is similar to petroleum diesel fuel, they are not identical. Renewable Hydrocarbon Diesel fuel has some advantages in that it has the potential to have better cold flow properties. However, to achieve this, the fuel needs increasingly more processing and energy put back into the fuel, which comes with increasing financial and carbon costs. A number of engine manufacturers and Original Equipment Manufacturers (OEMs) are also concerned about the lack of aromatics within renewable diesel. These aromatics allow for seals and gaskets to perform better within the engine. The existing diesel fuel specifications have not taken into account fuels that can be produced from sources other than petroleum crude oil. For these reasons and others, several OEMs have begun to limit their approval for Renewable Diesel to blends of 50%, 20% or less. Caterpillar Tractor Company for one, has their own specification for distillate fuel and biodiesel blends that is recommended and states that the expected performance can be achieved only when using known diesel fuels "that are derived from conventional sources (crude oil, shale oil, oil sands, etc.)".

The National Biodiesel Board believes that Renewable Hydrocarbon Diesel fuel, along with a couple of additional measured properties beyond the diesel fuel specifications in D975, is an advanced biofuel that can help meet the country's needs and the volumes within the Renewable Fuel Standard. However, fuel regulators are concerned with the difficulty of distinguishing appropriate renewable hydrocarbon diesel from those that are not, particularly once blended into petroleum diesel fuel. The NBB looks forward to working with such groups as ASTM and the Truck and Engine Manufacturers Association (EMA) to help set the appropriate specifications for today's newer fuels and the test methods that can be used to qualify them.