



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230

410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

Anthony G. Brown
Lieutenant Governor

February 12, 2014

The Honorable Peter A. Hammen
Members of the Health and Government Operations Committee
Room 241
House Office Building
Annapolis, MD 21403

Re: Letter of Information for House Bill 567-Procurement-State Vehicle Fleet-Biodiesel or Biofuel Requirements

Dear Delegate Hammen and Committee Members:

The Maryland Department of the Environment (MDE) has reviewed House Bill 567 and would like to provide the Committee with some information on this legislation. The use of renewable alternative fuels such as biodiesel can help promote energy security and independence as well as improve the environment in many instances. While MDE supports these goals, the increased use of biodiesel, as required in this bill, may present some environmental and operability issues, as explained below.

Biodiesel is made from renewable sources such as agricultural and animal products and include soybean oil, cottonseed oil, canola oil, sunflower oil and animal fats. When biodiesel is blended with petroleum diesel, it produces a fuel that is compatible with diesel engines, can displace petroleum diesel, and has lower emissions. The use of blends like B2 and B5 (2% and 5% bio-diesel, respectively) are becoming more common primarily for their lubricating properties. In 2006, the amount of sulfur, which acts as a lubricant, in most highway diesel fuel in the country was limited to 15 parts per million. Biodiesel offers excellent lubricity, and, since it is nontoxic and biodegradable, provides an alternative to traditional additives, reducing the need for other, non-environmentally friendly lubricating additives.

The use of biodiesel reduces the emissions of several of the criteria pollutants that can contribute to Maryland's ozone problem and adversely affect our ability to maintain compliance with the federal PM_{fine} air quality standard. Specifically, the use of biodiesel reduces emissions of carbon monoxide, particulate matter and sulfates, as well as hydrocarbons, toxic air pollutant and carbon dioxide. Some studies show that use of biodiesel may cause small increases in nitrogen oxide emissions. Other studies conclude the opposite.



Biodiesel blends generally have a positive impact on the operation of diesel vehicles in terms of power, torque and fuel economy. It may even slightly improve engine performance. Unfortunately, biodiesel has more cold weather operability problems than conventional diesel fuel. Temperatures below 30°F can cause biodiesel to cloud and even gel. At lower blend percentages, such as B5, low temperature does not present a problem. At higher blends, such as B20, it can be a significant problem. Many States, such as New York, require a lower blend during cold months (December thru March) and then switch to a higher blend in the remaining months.

A final, but important issue that needs to be highlighted is vehicle warranties. Many manufacturers of diesel vehicles, particularly light-duty vehicles, in the United States only warranty their vehicles to run on biodiesel blends of B5 or lower. These manufacturers clearly state that the use of a biodiesel blend greater than B5 could void the manufacturer's warranty. MDE believes this is a significant issue that the State should continue to investigate to determine the best option for moving forward with a biodiesel policy.

Thank you for your consideration of this information as you review HB 567. Please contact me at 410-260-6301 or by email at jeffrey.fretwell@maryland.gov if you would like to discuss this issue further.

Sincerely,



Jeffrey Fretwell

Cc: George (Tad) S. Aburn, Jr., Director, Air and Radiation Management Administration
Heather Barthel, Director, Legislative and Intergovernmental Affairs

