



Petroleum Equipment Approval Status for Biodiesel Blends

Biodiesel blends of 20 percent (B20) and lower made with ASTM grade biodiesel have been successfully used in the existing petroleum infrastructure and diesel engines since the early 1990s. Pure biodiesel (or fatty acid methyl esters) has been produced in conventional oleochemical plants since before World War II and its impacts on piping and tanks is largely known.

ASTM has modified the conventional diesel fuel specification for on/off road diesel fuels, ASTM D975, and home heating oil, ASTM D396, to include up to 5 percent biodiesel (B5) as a fungible component in the U.S. diesel fuel pool, similar to what has already been done in Canada and the European Union. ASTM has also recently released an approved specification for blends of biodiesel falling between B6 and B20, ASTM D7467.

Underwriters Laboratories, a private product safety certification organization, released a statement saying they do not believe any additional testing is needed for B5 blends for all UL petroleum equipment approvals. This includes fueling dispensers, tanks, piping, and more.

Based on B5's inclusion in the ASTM diesel fuel specification, and UL's position statement, up to B5 can be considered the same as conventional diesel fuel in the U.S.

Blends of B20 and lower now have formal ASTM Standards (D7467) and have been used successfully in existing diesel storage and dispensing equipment since the early 1990s. The National Biodiesel Board is working with UL and others to secure the testing protocols needed for B20 and higher blends in petroleum equipment, as these protocols have not yet been established. As soon as protocols are established, NBB will be working with members of the industry to provide existing data, or secure new data, for these approvals. Meanwhile, each local "authority having jurisdiction" is responsible for determining the acceptability of blends higher than B5 in petroleum equipment.