

Biodiesel Quality

Issue

With the introduction of a number of biodiesel initiatives occurring in this country, both at provincial and federal levels, the protection of the consumer should be of paramount importance to the Governments of Canada as well as the renewable and petrochemical fuel industry.

Background

Over the last three years many provinces have established or are investigating formal biodiesel mandates. In addition the recently released Federal Gazette Part 1 on renewable fuels indicates a national requirement of 2% of the total pool volume of middle distillate fuel in Canada being biodiesel in the near future. The policy benefits are the potential lifecycle GHG reductions from biodiesel blend use. However, due to the tremendous varieties of potential biodiesel feedstocks, the risks of adverse affects of Canadian cold climate conditions on these different biodiesel blends and the technology limitations of the on-road light duty to medium duty diesel vehicle fleet to use biodiesel blends, there is a need to ensure appropriate biodiesel, biodiesel blend quality and biodiesel blend level specifications are in place and enforced in Canada to ensure the consumer's vehicles and consumer safety is not undermined. Virtually the entire existing on-road fleet of light and medium duty diesel vehicles in Canada is only validated and warranted to use up to a 5% blend (B5) of biodiesel.

There are specifications for biodiesel blendstock issued in Europe under EN14214 and in North America under ASTM D6751. These specifications define unblended 100% biodiesel (B100) used as the blend component with diesel fuel. ASTM has also published standards for the B6-B20 finished blend (ASTM D7467) and B0-B5 finished blend standard (ASTM D975). The Canadian General Standards Board (CGSB) has published a standard for B1-B5 finished blends (CAN/CGSB-3.520-ULS) and is in the process of developing a B100 standard and a B6-B20 standard that both factor in Canadian climate issues as well as any unique aspects of Canadian bio-component feedstocks.

Recommendations

That the federal government:

1. Regulate all biodiesel blends sold in the Canadian market for quality and blend levels:
 - For low level biodiesel blends (B1 to B5) the final blend must meet the latest version of specification CAN/CGSB-3.520 (ULS) and regulate that all retailed diesel for conventional light duty diesel vehicles does not exceed a 5% blend of biodiesel.
 - Until a CGSB B6-B20 specification is available, biodiesel blends containing more than 5% and up to 20% biodiesel must meet the latest version of ASTM specification D7467 S15 (biodiesel blend, B6 - B20).
2. In addition, require that appropriate retail pump labeling be provided for any biodiesel blends of 6% or higher (i.e., high level biodiesel blends between B6-B20) to ensure that consumers with conventional light duty diesel vehicles do not use this fuel and potentially damage their vehicles or experience unsafe vehicle operation.

Special Notes: ASTM; American Society for Testing and Materials, now known as ASTM International. This is a group of engineers and scientists that by consensus develop standards that have made products and services safer, better and more cost-effective. The letter and numerical list that follows ASTM designates the standard to be referenced for a particular product. EN is the European Committee for Standardization.