

**Biodiesel
Successful Transition to the Exclusive
Use of B20 Fuel**



Successful B20 Users

ComEd/Exelon in Oakbrook, IL, has used 5.2 million gallons of B20 (20% biodiesel/80% petroleum diesel) since they began the program in March 2001. ComEd has approximately 2100 various diesel-powered vehicles, tasked with supplying the northern third of the state of Illinois with electric power. The company runs B20 exclusively in its fleet.

Source: National Biodiesel Board 3/20/2006

Operating Requirements

- Identify all Environmental Variables:
 - Operating Temperature (Expectations of Equipment Operation).
 - Equipment Storage (heated shop vs. outside).
 - Storage Requirements (UST or above ground).
 - Fuel Stability Requirements.

Essential Elements to a Successful Biodiesel Fuel Program

- Ensure that all Biodiesel (B100) meets the ATSM D6571 Specification.
- Support Vendors that successfully participate in the BQ9000 Fuel Quality Program.
- All suppliers must be able to provide documentation of a D6217 Filterability Test (required to reduce the tendency of clogged filters in a “Real World” environment).

Essential Elements to a Successful Biodiesel Fuel Program

- Ensure that all fuel deliveries are accompanied by a “Certificate of Analysis for both the B100 and subsequent Blends.
- Require that the Blended Product (B20) has a Pour Point of -30 Degrees (*Winter Months Only*).
- Require that all Biodiesel (B100) has a Glycerin contents at or below the ATSM Specification.

Essential Elements to a Successful Biodiesel Fuel Program

- Require that the Blending Process is performed at temperatures that ensure successful mixing of the products.
- Ensure that Manufacturers and Distributors are responsible for fuel quality in every step of the process through consumption.
- Require that all B100 has been filtered using 100 Micron Filtering process prior to Blending.

Expectations of Transitioning to Biodiesel (B20)

- Fuel Filters on Vehicles and Dispensing Equipment will need to be changed more frequently after Implementation.
- Older Equipment may produce additional amounts of soot until several tanks of fuel have been consumed.
- Operators will notice an difference in Exhaust Smell.

Future Challenges: EPA Ultra Low Sulfur Rule

- ULSD has dramatically reduced lubricity characteristics.
- The use of Biodiesel (in blends of B2 and greater) ensures adequate fuel lubricity.
Source: National Biodiesel Board
- Is Biodiesel the solution to the fuel lubricity issues associated with ULSD?

Future Challenges: Proper Problem Identification

- What actions should be taken if you suspect Biodiesel is impacting vehicle performance?
- What diagnostic steps should Fleets be prepared to address?
- What Data do we need to consistently collect to ensue proper analysis?