



Nat'l Biodiesel Board
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Biodiesel and Texas Low Emission Diesel

The Texas Low Emission Diesel (TxLED) Program was developed to lower emissions of NOx and other pollutants from diesel-powered motor vehicles and non-road equipment operating in 110 counties in the eastern half of Texas, including the ozone nonattainment areas of Beaumont-Port Arthur, Dallas-Fort Worth, and Houston-Galveston-Brazoria. It applies to diesel fuel producers, importers, common carriers, distributors, transporters, bulk terminal operators, and retailers.

On December 21, 2007, Texas Commission on Environmental Quality (TCEQ) approved the National Biodiesel Board's Alternative Diesel Fuel Formulation for TxLED consisting of a biodiesel blend comprised of 5 percent or less by volume of ASTM D6751-compliant biodiesel and 95 percent or more by volume of any TxLED-compliant diesel fuel. This approval is also subject to the proper treatment and storage of the fuel.

The use of this TCEQ approved B5 formulation eliminates the need to further additize biodiesel blends of up to 5 percent biodiesel by volume when sold or supplied for use in the TxLED affected counties. Biodiesel blends above B5 and up to B20 must be additized with TCEQ approved additives before being sold or supplied for use in the TxLED affected counties. Currently, the sale or supply of biodiesel blends greater than B20 for use as a motor fuel in any of the 110 Texas counties affected by the TxLED program has not been approved by the TCEQ.

Compliance Guidelines

Biodiesel producers that intend to sell or supply biodiesel blends of up to 5 percent biodiesel by volume in any of the 110 counties in eastern Texas affected by the TxLED program should adhere to the following guidelines to remain compliant with the TCEQ's TxLED regulations:

- **Registration & Reporting** - producers of any TCEQ approved biodiesel blend that is to be sold or supplied for use in the TxLED affected counties are required to comply with the registration, recording keeping and reporting requirements of the TxLED program.
- **Biodiesel specification** – producers must ensure that the biodiesel used to produce the finished biodiesel blend complies with the current active version of the ASTM D6751 *Standard Specification for Biodiesel Blend Stock (B100) for Middle Distillate Fuels*.
- **Diesel specification** – producers must ensure that the petroleum diesel fuel used to produce the finished biodiesel blend is compliant with the TCEQ's TxLED regulations as a diesel fuel that may be sold for use in the TxLED affected counties.
- **Blending rate** – producers must ensure that the finished biodiesel blend contains no more than 5 percent biodiesel by volume.
- **Blending method** – an appropriate blending method should be strictly maintained to ensure that proper mixing of the biodiesel into the TxLED-compliant diesel fuel occurs.

Please note that biodiesel has a specific gravity of 0.88 compared to No. 2 diesel at 0.85 and No. 1 diesel at 0.80. Inadequate blending may result in differing biodiesel concentrations within a truck, storage or vehicle tank. Once adequately blended, biodiesel will not stratify. See the *NBB BQ-9000 Producer Guidance Document* for additional information on fuel blending methods.

- **Proper Handling & Storage** – Pure biodiesel should be stored in tanks that can ensure the fuel temperature will remain at temperatures at least 5°F to 10°F above the cloud point of the B100 prior to blending with petrodiesel. Once blended, traditional petrodiesel methods and practices for cold flow management should be used with biodiesel blends. See the *NREL Biodiesel Handling & Use Guidelines* for additional information on handling and storing biodiesel blended fuels.

Information regarding the TxLED program and the other alternative diesel fuel formulations for biodiesel blends approved by the TCEQ is available on the TCEQ's TxLED webpage at <http://www.tceq.state.tx.us/implementation/air/sip/cleandiesel.html>. The required TxLED registration and reporting forms are also available of the TxLED webpage. In addition, the TCEQ has developed a [draft regulatory guidance document \(PDF\)](#) that provides answers to common questions regarding the TxLED rules and requirements to assist producers, importers, and other affected entities, with their compliance under these regulations.

If you have any additional questions or need further assistance in regards to compliance with the TxLED regulations, please call Mr. Morris Brown in the TCEQ's Air Quality Planning Section at (512) 239-1438.

Documents & Links

- [Biodiesel Specification](#)
- [NREL Biodiesel Handling & Use Guidelines](#)
- [Fuel Quality and Performance Troubleshooting Guide](#)
- [Texas Commission on Environmental Quality – TxLED](#)
- [TxLED Biodiesel Alternative Diesel Fuel Formulations](#)