



Linda S. Adams  
Secretary for  
Environmental Protection

# State Water Resources Control Board

## Division of Water Quality

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Arnold Schwarzenegger  
Governor

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To: Local Implementing Agencies and Interested Parties

BIODIESEL UPDATE: UL POSITION ON B5

This letter provides a status report on Underwriter Laboratories' (UL) position on use of B5.

### Background

Cal/EPA Secretary Linda Adams and the State Water Resources Control Board (State Water Board) requested that UL determine whether its Standards and Certification for petroleum diesel storage in USTs can appropriately be applied to biodiesel blends of up to B5. UL recently issued its determination at the following:  
<http://www.ul.com/gasandoil/b5.html>.

### Discussion

UL conducted a technical review of biodiesel fuel and technologies. UL worked closely with US Department of Energy, National Renewable Energy Laboratory, Brookhaven National Laboratory, Oak Ridge National Laboratory, and the National Biodiesel Board. UL also conducted performance testing of heating equipment using B5. The findings indicated no adverse safety effects, and that products intended to use biodiesel blends up to B5 that are compliant with applicable ASTM International fuel standards will not require special investigation by UL.

UL also found that use of biodiesel at levels above 5% may have a significant effect on materials, performance or combustion of some equipment. UL is in the process of finalizing product safety requirements for equipment specified for use with biodiesel (B100) and biodiesel blends up to B20.

### Present and Future

The State Water Board regards UL's decision as a compatibility determination for the storage of biodiesel blends up to B5 in UST's approved for petroleum diesel. However, leak detection functionality testing with biodiesel blends is not yet complete. Such testing is necessary for USTs that rely on liquid sensors, automatic tank gauges, and line leak detection systems for methods of leak detection.

UST's installed on and after July 1, 2004, and which meet the requirements of Health and Safety Code section 25290.1, rely on vacuum, pressure or hydrostatic (VPH) interstitial monitoring, which is not material property sensitive. Ancillary leak detection methods for these UST systems (e.g. line leak detectors, automatic tank gauges) require functionality testing, but the VPH interstitial monitoring can reliably detect a release before it escapes the UST system. Since VPH interstitial monitoring is highly effective and can reliably detect a release before it escapes the UST system, allowing use of these UST systems for storage of biodiesel blends up to B5 is appropriate.

We will continue to provide updates. If you have any questions or concerns regarding this letter please contact Ms. Laura Fisher-Chaddock at (916) 341-5870 or [lchaddock@waterboards.ca.gov](mailto:lchaddock@waterboards.ca.gov).

Sincerely,

*Original Signed By*

James George Giannopoulos, Chief  
Groundwater Quality Branch