

# REG-9000™ Technical Bulletin

July 2009



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REG-9000 Technical Bulletin

What'll you'll find in this issue...

- REG-9000 is exceeding cold soak filtration testing
- Danville facility earns BQ-9000 Producer status
- RINs values are a key component in biodiesel economics
- REG offers four distinct pricing options

## Technical Update from Dave Slade

Quality continues to be the number one technical issue for biodiesel customers. The cold soak filtration test has been in effect in ASTM D 6751 for almost a year now as an annex. Beginning Oct. 1, 2009, meeting the specification will be enforced by the IRS for the Blender's Tax Credit so all biodiesel in the US should soon satisfy this important test.

REG has been utilizing cold soak filtration testing and meeting or exceeding this quality control test at all REG-9000™ biodiesel production facilities since the test debuted in Minnesota in 2005.

As soybean oil prices remain high for the second straight

year, feedstock and finished fuel quality remain as hot topics along the diesel supply chain. While soybean oil still comprises a significant volume of biodiesel feedstock spectrum, animal fats such as pork lard and beef tallow as well as DDG corn oil are now important biodiesel feedstock. The popularity and prevalence of multi-feedstock biodiesel has grown. REG's product line has been well accepted and REG-9000/10 biodiesel continues to offer value with quality and economics.

REG-9000/10 continues to meet REG-9000 quality specifications which exceed ASTM specifications. The proposed feedstock categori-

zation in the EPA's RFS-2 should only increase customer interest in alternative feedstock.

Positive responses to REG's feedstock neutral, attribute-based approach to biodiesel marketing continue to increase as diesel distributors gain real world experience with the REG-9000 product line. As a reminder to customers: REG-9000 biodiesel is a quality blend of methyl esters derived from fats and oils and is not the fats and oils themselves. REG's believes their REG-9000 product lineup allows its customers to get the quality of fuel they need for the price they want from an established and reliable supply network.

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for REG-9000™  
customers and REG  
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## Another REG network facility earns BQ-9000 Producers status

Blackhawk Biofuels, LLC has earned BQ-9000 Producer status from the National Biodiesel Board and the National Biodiesel Accreditation Committee.

"Today the petroleum industry is demanding biodiesel from BQ-9000 Producers," said REG's Vice President of Sales and Marketing, Gary Haer in a

recent press release. "This certification distinguishes this strategically-located, multiple feedstock facility as a high quality fuel provider for petroleum distributors in Illinois, the greater Midwest region and distributors across the country."

A member of the REG network, Blackhawk Biofuels is a state-of

-the-art, 45-million-gallon per-year biodiesel production facility. REG is responsible for all REG-9000™ branded biodiesel marketed from the Danville, Illinois facility. Blackhawk Biofuels recently completed construction to upgrade facilities to offer cutting edge technology for producing high quality biodiesel from a variety of fats and oils.

### Iowa Interstate Railroad testing biodiesel blends in locomotives

REG and the Iowa Interstate Railroad have paired up to test biodiesel blends in a GM engine locomotive. The engine is a 2,000 horsepower, 16 cylinder, two-cycle engine. The first phase of testing includes B10 blends. This B10 testing

began last month and is expected to be completed in August 2009.

The second phase is expected to last for another three months with the blend increasing to B20. After this period the railroad will complete a full

analysis during an engine tear down. The Iowa Interstate Railroad hopes this test will allow them to open the door to further biodiesel use as a way to reduce their corporate carbon footprint



Iowa Interstate Railroad is partnering with REG for B10 and B20 locomotive testing.

### REG participating in effort to test biodiesel in pipelines

There is a growing desire in the U.S. to ship biodiesel blends as efficiently as possible. With the advent of proposed Renewable Fuel Standard-2 (RFS2) rules, pipeline infrastructure is the next big thing to help move biodiesel blends across the nation affordably.

Approval of 100 ppm biodiesel in jet fuel on a continuous-use basis has been identified by the US pipeline industry as one of the key barriers to the transport of biodiesel blends in US pipelines, as there are concerns that transporting biodiesel via pipeline may contaminate the quality of the jet fuel passed through the same pipe-

line. The currently accepted Federal Aviation Administration limit is 5 ppm maximum biodiesel/methyl ester in jet fuel.

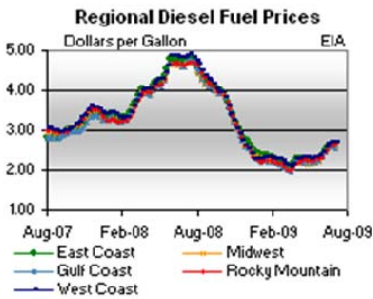
The transportation cost difference between pipeline and truck transport can be as high as 20 cents per gallon. If only 25 percent of the ~1 billion gallons of RFS-demanded biodiesel is transported via pipeline, it could amount to an annual savings of over \$50MM to diesel fuel users compared to the use of trucks.

REG is working as part of a pipeliner group whose goal is to approve 100 ppm FAME (biodiesel) in jet fuel with the accep-

tance of large oil refiners, pipelines and the aviation industry. This group includes major pipeline partners, petroleum companies and biodiesel industry stakeholders. 100 ppm is the equivalent of one gallon of B5 in 10,000 gallons of diesel fuel.

The group hopes to complete tests for 100 ppm biodiesel in a jet engine this summer. This engine test is expected to utilize 400 ppm biodiesel to ensure that 100 ppm is a safe level for aviation. After the engine test, the pipeliner group intends to determine the next steps for testing biodiesel blends in actual jet fuel pipelines.

“The transportation cost difference between pipeline and truck transport can be as high as 20 cents per gallon”



EIA's regional diesel prices since August 2007 highlight diesel fuel pricing volatility.

## Biodiesel pricing options in midst of diesel fuel price volatility

With diesel fuel price volatility in the midst of a continued economic recession, understanding pricing options available for biodiesel is key for maintaining successful blending economics. REG offers a variety of biodiesel pricing products so that distributors can manage price volatility. Here's a brief overview of REG's four primary pricing options.

**Spot contracts:** Short term contracts at one price with loads generally picked up/delivered immediately or within a week of the signed agreement. Offers quick

pricing from REG's daily price sheet to help meet unexpected demand.

**Supply contract:** Ensures supply over longer periods of time. Price can be established or locked in when contract is made or at the time of pick up. Offers distributors biodiesel supply assurance to consistently and continually offer biodiesel blends to customers.

**Fixed price contract:** One price that is locked in for the length of the contract. Biodiesel is available for pick up over a range of contract lengths; two weeks to six

### **Index price contract:**

Biodiesel priced in accordance with either New York Mercantile Exchange (NYMEX) heating oil pricing or major rack diesel price. Allows customers to manage margin with biodiesel pricing following the volatility of the market by working with the REG team to establish a spread that is +/- the posted diesel price for a specific volume per month/week (i.e. indexed price for 50,000 gallons of biodiesel per month for three months).

Stimulus package provides millions for biodiesel infrastructure and emissions benefits

The American Recovery and Reinvestment Act of 2009 (Recovery Act) includes \$300 million to support clean diesel activities like using biodiesel blends.

The goal of EPA's National Diesel Emissions Reduction Program (DERA) is to address in-use diesel engines by promoting a

variety of cost-effective emission reduction strategies, including switching to cleaner fuels like biodiesel. One example of such funding is the Iowa DNR's RIDE grant program which offered to pay any cost differentials between biodiesel and petroleum diesel for diesel engine fleets.

Encourage your customers to go online at [www.epa.gov/cleandiesel](http://www.epa.gov/cleandiesel) or call the national hotline for funding questions at 1-877-NCDC-FACTS.

End users can also email: [cleandiesel@epa.gov](mailto:cleandiesel@epa.gov). Check with your state's Clean Cities coordinators or the region's EPA staff for more details and ask for their help in applying!

Diesel suppliers and end users eligible for \$ millions in EPA grants



## RINs values are key component of biodiesel economics



“When taking into account RINs values of \$0.25-\$0.35/gallon, there is potential margin opportunity.”

Registering for, collecting, tracking and extracting value from RINs can be a complicated process, however today’s RIN markets offer potential value from petroleum refiner throughout the supply chain to end users such as school bus and off-road fleets.

RINs are the federal tracking mechanism developed by the Environmental Protection Agency to monitor utilization of renewable fuels driven by the Renewable Fuels Standard. As part of the RFS-2 comment period, EPA is outlining the details of how obligated parties such as petroleum refiners must meet their portion of the federal biodiesel consumption volume requirements. Their consumption will be tracked by possession of RINs. If a refiner or major petroleum company doesn’t meet their consumption requirement of biodiesel for the year, they’ll need to purchase RINs on the open market, or pay the penalty imposed

by the EPA.

If you are a petroleum distributor, current biodiesel blender, large over-the-road fleet, mining operation or a school district or fleet who is blending biodiesel with petroleum diesel, then you should know that the obligated parties could be actively looking to purchase your RINs.

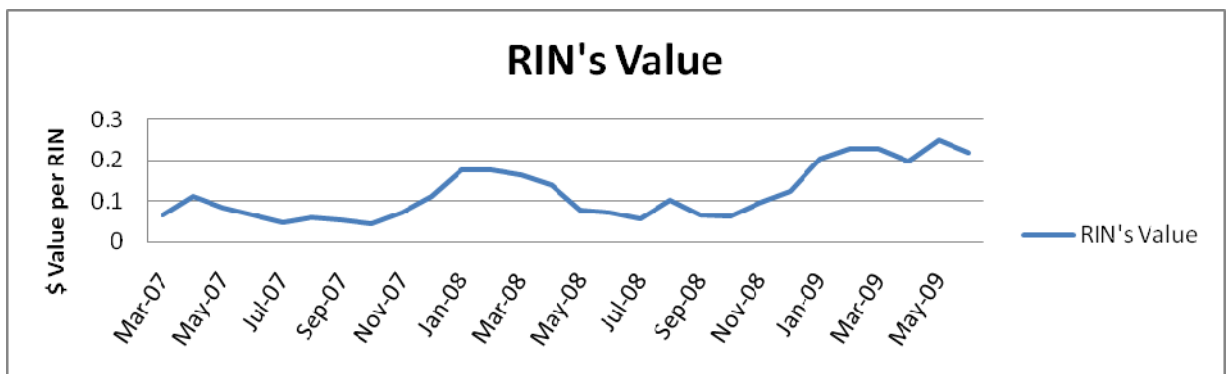
Under proposed RFS-2 rules, diesel consumers in underground mines, off-road construction fleets and large agricultural operations who are blending biodiesel will likely be allowed to separate their RINs and sell them on the open market in order to help obligated parties meet their federal volume requirements.

Almost anyone who purchases biodiesel direct from a biodiesel producer, like Renewable Energy Group, will have the opportunity to extract value from the RINs program, even if you don’t register with EPA to collect RINs.

There is market value in the RIN program for end consumers who are aware of the program and who can work with their fuel suppliers on pricing models that account for RIN values.

This summer’s rack prices of #2 ULSD have been in the \$1.50 to \$1.75/gallon range. June biodiesel prices for B99.9 have been \$.05 to \$.10/gallon higher. Since March 2007, RINs values have steadily risen in value from 10 cents per gallon to more than 30 cents per gallon in June 2009. Pair this with several state incentives or tax credits for biodiesel utilization and there is potential for significant gross margin opportunity.

When taking into account RINs values of \$0.20-\$0.30/gallon, there is potential margin opportunity for biodiesel customers across the country who take the time to better understand the RINs process and extract potential value as part of their fuel pricing model.



One gallon of biodiesel = 1.5 RIN. With June RIN values at about \$0.21 per RIN, that’s about \$0.32 per gallon value that could potentially be extracted to help obligated parties meet their biodiesel volume requirements under the Renewable Fuels Standard.

Source: Biofuels Connect and REG