

## final thoughts...

Thanks for taking the time to look over our first issue of “@ The Bus Stop.”

School districts across the Pacific Northwest are having to deal with budget challenges and unknowns, reduced staff, and increased demand for special needs transportation. This doesn't even take into account the changes coming our collective way in terms of 2010 diesel emissions, reduced choices for Type A chassis diesel engines with Ford leaving the market, increased alternative fuel availability, and other developments that we can't foresee just yet.

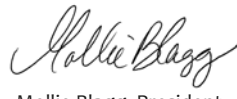
Our goals in providing this newsletter to our customers are:

- To keep you aware of new developments in the school bus industry

- Unveil exciting new products
- Spotlight growing options in environmentally-friendly technologies
- Provide insight into WBS, our employees, our service, and our business philosophy

I hope you enjoyed this first edition; we welcome any and all feedback. Thank you for your business, and we look forward to working with each of you in 2010!

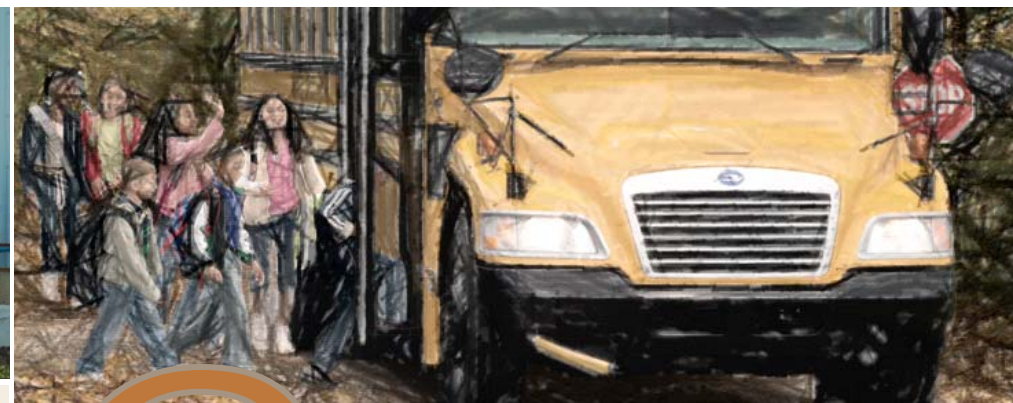
Happy New Year ~



Mollie Blagg, President

Contact us at (800) 258-2473

[www.westernbus.com](http://www.westernbus.com)



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Diesel Exhaust Fluid: Fact Vs. Fiction

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## Upcoming Events

OPTA:	June 21-23, 2010
WAPT:	June 27-29, 2010
OASBO:	July 28-30, 2010
OSBA:	November 11-14, 2010

# @ THE BUS STOP

A Quarterly Publication from the Team at Western Bus Sales, Inc.

Spring 2010

utilizing the web >>>

## Online Resources for Understanding the 2010 Diesel Emission Standards

In order to increase awareness and education about the 2010 diesel emission standards, multiple online resources are available:

- <http://www.westernbus.com> then click on “New Bus Sales,” “School,” “2010 Emissions”
- <http://www.blue-bird.com> then click on “2010 Emissions”
- <http://everytime.cummins.com> then click on “EPA 2010”
- <http://www.factsaboutscr.com>
- <http://fleetowner.com/topics/2010-emissions/>

## It's 2010 Already?

### New Diesel Emission Standards Have Gone Into Effect

As of January 1, 2010, diesel engine manufacturers in the United States have to comply with new Environmental Protection Agency (EPA) emission standards. Diesel engines manufactured on or after that date will have to meet the following limits:

—> Particulate Matter (PM) of .01 grams per horsepower-hour (same as 2007)

—> Nitrous Oxide (NOx) of .2 grams per horsepower-hour

For 2010 and beyond, Blue Bird will be offering Cummins engines in their Type C and D school bus platforms. Cummins has chosen a path using Selective Catalytic Reduction, or SCR, to meet the 2010 emission standards. SCR is technology that is tried and tested, with more than half a million trucks using SCR every day in Europe. Apart from International - which has selected the advanced exhaust gas recirculation, or “A-EGR” technology - all other diesel engine manufacturers have selected the SCR path to meet these new standards.

Since 2007, all Cummins engines have been equipped with a Diesel Particulate Filter, or “DPF.” This remains the same on 2010 engines, with the additional SCR catalyst hardware downstream from the

DPF. Diesel Exhaust Fluid, or “DEF,” is dosed, or sprayed into the exhaust stream. In the Decomposition Reactor, the DEF is converted into ammonia (NH<sub>3</sub>) through hydrolysis. The exhaust then enters the SCR catalyst, where the NOx is converted into harmless nitrogen gas and water vapor, for near-zero emissions.

Cummins and Blue Bird estimate that DEF usage will be approximately 2% of your diesel fuel consumption. In other words, for every 100 gallons of diesel fuel, you will use approximately 2 gallons of DEF. You can read more about DEF and some of the facts (and fiction) about the fluid on the following page.

For 2010, Blue Bird will be offering the following engines on their school bus products:

Type C Vision Conventional

**Cummins 6.7L ISB-10 & GM 8.1L Propane**  
Type D All American Front Engine

**Cummins 6.7L ISB-10**  
Type D All American Rear Engine

**Cummins 6.7L ISB-10 & 8.3L ISC-10**

For more detailed information and comparisons regarding 2010 diesel emission standards, visit the helpful links on the left.

2010 will see  
near-zero  
emissions in  
school buses



### OUR MISSION:

To offer reliable, high-quality products and dependable customer service to Northwest transportation providers, allowing them to provide safe and efficient services to their customers at the lowest total cost.

### OUR VALUES:

Western Bus Sales, Inc.'s values guide the beliefs and actions of all our employees on a daily basis. Our values are central to our success, and form the backbone of our competitive advantage in the marketplace.

#### TO DO THE RIGHT THING

We always strive to exercise good judgment by doing the right thing. We will endeavor to understand the impact of our decisions, and we accept responsibility for our actions. We will follow the golden rule of “treat others as you would want to be treated.”

#### TO TAKE CARE OF OUR PEOPLE

We support and provide for our employees and their families. We will encourage our employees to take risks and learn new things, as part of an investment in their personal growth.

#### TO CONSISTENTLY PROVIDE EXCELLENT CUSTOMER SERVICE

We give customers knowledgeable advice about their vehicle acquisition or aftermarket product or service, helping them to find the best value for their unique need. We will always focus on offering products and services with the lowest total cost of ownership.

#### TO BUILD LONG-LASTING RELATIONSHIPS

We strive to build and maintain strong relationships with our customers, employees, vendors, and community by listening and responding to their needs. We value trust, honesty and integrity as fundamental components of our business relationships and the company's reputation.

#### TO FOSTER AN INNOVATIVE AND CREATIVE SPIRIT

We encourage our employees to initiate new and inventive ways of serving our customers, improving our business, and spreading best practices throughout the organization.

#### TO RESPECT ALL PEOPLE

We ensure our employees, customers, and vendors enjoy an environment of mutual respect, free of discrimination and harassment, where each person is regarded as a contributor to the success of the Western Bus Sales team.

#### TO CREATE SHAREHOLDER VALUE

We are committed to providing a fair return on investment to our shareholders.

#### TO GIVE BACK TO OUR COMMUNITIES

We will give our time, talents, energy and resources to worthwhile causes in our community and society.

## Diesel Exhaust Fluid: Fact vs. Fiction

Diesel exhaust fluid, or DEF, is the key component in making SCR technology work to enable diesel engine manufacturers to meet the 2010 emission standards. However, it is commonly misunderstood. Following are just some of the common misconceptions about DEF:

### 1. DEF is Toxic

**Fiction.** DEF is a solution of 32.5% urea and deionized water, and is NOT toxic. It has the pH level of 9, just to the alkaline side of neutral, next to baking soda.

### 2. DEF is Difficult to Use

**Fiction.** DEF is handled like a windshield wiper fluid or radiator

coolant, and being non-hazardous and non-flammable, it is easily dispensed at your fueling station or by as little as a 1 gallon jug.

### 3. DEF Degradation will be a major problem

**Fiction.** As with many automotive fluids, DEF will degrade over an extended period of time and has a shelf life of between 6 months and 1 year. For a typical school bus use, that includes a period of inactivity in the summer. DEF degradation will not be an issue.

### 4. Frozen DEF will render the vehicle unusable

**Fiction.** DEF is not damaged or destroyed if it is frozen and is fully

usable when thawed during the bus warm up period. The SCR system provides heating for the DEF tank and supply lines. The EPA will allow the vehicle to operate for a period of time without having to wait for the DEF to thaw. DEF has been used in extreme cold and hot regions of Europe for some time without issue.

### 5. DEF will be difficult to find

**Fiction.** Cummins joins Daimler, PACCAR, Volvo, and MACK in the use of SCR. DEF will certainly be readily available in a number of dispensing systems from fueling stations, and including as small as 1 gallon containers. You can expect DEF will be carried in places where oil, lubricants, and windshield fluid are

found today, including for purchase from Western Bus Sales.

### 6. DEF will be a hassle.

**Fiction.** A school bus traveling 15,000 miles, with fuel economy of 8 MPG, and a DEF tank of 15 gallons will use 37.5 gallons of DEF per year, with only 2.5 fill-ups per year. That should be less often than other preventative maintenance services.

There are no real reasons to fear the integration of SCR technology and DEF into your district's operations. For more information on DEF, visit [www.factsaboutsqr.com](http://www.factsaboutsqr.com) and click on "Diesel Exhaust Fluid."



## Get A Grip — With Automatic Chains

Automatic Tire Chains Offer Superb Traction With Needed Flexibility in our Ever-Changing Pacific Northwest Climate



Black ice and snow can pose an ominous threat to buses on the road, especially when the road conditions vary due to elevation changes or quick-moving weather storms throughout the course of a bus route. Drivers may be forced to stop the bus and chain up for just a short portion of their route, costing time and money for operation, and increasing safety risks as well as frustration for drivers.

A perfect and often under-utilized solution for these scenarios is automatic tire chains. Chainwheels with six lengths of chain spaced at 60° intervals are permanently mounted to the rear axle of the bus. The chain wheels are released using the air brake system, or an additional air compressor for buses with hydraulic brakes. At the flip of a switch, placed within the bus driver's area, tire chains are deployed within seconds.

The automatic chains are designed to effectively work on ice, packed snow, and up to 6 inches of snow. The bus should be moving when the chains are engaged or disengaged, but not at speeds over 25 mph. The bus can then be operated with chains engaged up to 35 mph.

Automatic tire chains are DOT-approved in both Oregon and Washington when chains are required. Save time and money, while increasing safety and reducing frustration for your drivers.

Automatic chains are available on new bus orders as well as retrofits for buses currently in operation. Contact us today to find out how to integrate automatic tire chains and their excellent safety and efficiency benefits into your fleet.

Western Bus Sales has installed more OnSpot brand automatic tire chains in the Northwest than any other dealer.



## The Green Corner

Each issue spotlights technology developments, funding opportunities, and new product introductions that help provide more environmentally-friendly options to the transportation community.

## Collins & CleanFUEL USA Team Up to Offer Propane Type A

Collins Bus Corporation and CleanFUEL USA have signed an exclusive agreement to develop the first Type A school bus chassis that runs on a Liquid Propane Injection (LPI) system. Available on the GM 6.0L dual rear wheel chassis, this product offers the lowest cost of entry into the alternative fuel market. Benefits include: significantly reduced greenhouse gas emissions, extended engine life from lower carbon production and reduced oil contamination, and excellent fuel range. It will be available in both straight-seated and special needs vehicle configurations.

## Propane Safety Facts

- Propane has built-in safety properties:
- Narrow range of flammability when compared to other petroleum fuels
  - High ignition point of 940 °F compared to gasoline at 430 °F to 500 °F
  - Nontoxic and is not harmful to soil or water
  - Propane tanks are 20 times more puncture resistant than conventional fuel tanks

## Want More Information?

Contact your WBS Sales Rep, visit our website at [www.westernbus.com](http://www.westernbus.com), or visit Collins website at [www.collinsbus.com](http://www.collinsbus.com).



## Employee Spotlight



Mike Niska, Service Writer

Having started his WBS career on the service shop floor, Mike was promoted to Service Writer in 2008. Mike's responsibilities include providing estimates for repairs for all Service Department customers, as well as providing updates on vehicle repair progress. He administers all service contracts and preventative maintenance agreements in order to provide the most efficient and trouble-free service to all customers.

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## leading the charge for cleaner air >>>

# Central Oregon Takes the Lead with Propane-Powered Visions

In 2007, Blue Bird introduced the Propane-Powered Type C Conventional Vision School Bus to the industry. Unlike "retrofit" systems of the past, the Propane-Powered Vision is a fully integrated and purposely-built OEM bus, engineered to the same exacting standards as other Blue Bird buses.

In early 2009, Bend-LaPine School District made a decision to purchase twenty-one (21) new 77-passenger Blue Bird Propane-Powered Vision school buses for their operation. "We are excited about our propane buses for many reasons," said Denise Blake, district transportation supervisor. "Propane is a clean fuel, which is one of the most attractive features."

Blake said cost efficiency is another attractive feature. "Propane is a fraction of the price of diesel, and we get government rebates on each gallon of this alternative fuel." The operation costs are further reduced by lower maintenance requirements. "The buses are easier to maintain with clean fuel, and service does not have to be done as frequently," Blake said.

Jefferson County School District 509J in Madras, also took delivery of one (1) Propane-Powered Vision school bus equipped for special needs transportation in November 2009.

For more information, visit [www.westernbus.com/Propane\\_Vision.php](http://www.westernbus.com/Propane_Vision.php).



## answering your questions >>>

**Q:** Where can I find grant opportunities for the purchase of new school buses with cleaner engines?

**A:** Online resources for grant opportunities include:

EPA's National Clean Diesel Funding Assistance Program:  
<http://www.epa.gov/otaq/diesel/prgnational.htm>

Federal Online Listing of All Grant Opportunities:  
<http://www.grants.gov>

Oregon Clean Diesel Grant Program  
<http://www.deq.state.or.us/daq/diesel/clean.htm>

