

Clean Fuels Today-Blue Skies Tomorrow

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Some Statistics

- Each year in the US vehicle air emissions produce over 50 million tons of regulated pollutants
- 50% of the urban smog (ozone)
- 90% of the carbon monoxide
- Most of the air toxic pollutants

Heavy Trucks

- Although heavy-duty diesel trucks comprise only about 2 percent of the vehicles on the road, they have 10 times the fuel consumption of a passenger car and produce 65% of on-road particulate matter emissions and 30% of all NOx emissions.

What's being done?

- For Cars:
 - Tier II rule
- For Trucks:
 - Phase I Heavy Duty Diesel Rule (2004)
 - Phase II Heavy Duty Diesel Rule (2007)

Big Changes for New Vehicles

- New rules include cleaner fuels and new emission controls
- Rules phase in over time
- Rules reign in categories of vehicles which had gotten a free ride in the past

Emissions box is getting small

What is ULSD?

- Diesel light (less filling/ tastes great)
- Fungible with today's highway diesel (LSD)
- Enables the latest in exhaust controls like particulate traps

Where do you get this stuff?

Has been manufactured in a few areas around the US and in other parts of the world for about 5 years

Two gulf coast refineries (Valero's Three Rivers plant in Corpus Christi TX and Chevron-Texaco's Pascagoula MS refinery)

Who's been using it lately?

- Washington State fleets
- California fleets
- Texas fleets
- NY City buses
- Atlanta fleets

What about Lubricity?

- Lubricity additive needed for ultra-low sulfur diesel because the refining process removes components from diesel which lubricate the moving parts in the fuel system (pump and injectors)
- Additive must be injected at the terminals, not at the refinery, because of contamination issues with jet fuel

Is Biodiesel good for Lubricity?

- Yes, it has been used at 1% or 2% blend levels to improve lubricity of ULSD
- Biodiesel also displaces a little bit of petroleum with a renewable, domestic fuel

What has DEP done to promote cleaner fuels?

- Even though new emission standards are effectively minimizing tailpipe emissions from new vehicles, the existing fleet continues to be a major source of emissions
- Diesel vehicles have long lives and older trucks are some of the highest emitters

The Perfect Solution:

- Plan A: Burn the clean new fuels in brand new vehicles and scrap all the older vehicles...

Plan B: Alternative Fuels for Trucks

- Biodiesel is the big one
- Blends with highway diesel make a premium fuel which is better for your engine
- Main reason to use biodiesel: better for the environment

What About Cost?

- B20, which is 20% biodiesel and 80% diesel, cost roughly 20 cents more per gallon
- Current government subsidies for biodiesel (if passed on by the fuel supplier) will reduce the premium for biodiesel. These subsidies expire in 2007
- It may help your company image to use blends of renewable fuel. B2 is using biodiesel...

Plan B: for gasoline vehicles

- Remember Gasohol? Ethanol blends are alternatives to conventional gasoline.
- Flexible Fuel vehicles like the Ford Taurus, Chevy Suburban, and several others can use E85 which displaces 85% of the petroleum with a renewable, domestic fuel.
- Propane and CNG are also alternatives.

Questions?

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