

EPA Clean Diesel Engine Implementation Workshop

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VOLUNTARY DIESEL RETROFIT PROGRAM

“Making Diesel Engines Cleaner”



What is the Voluntary Diesel Retrofit Program?

- A voluntary program designed to improve the emission performance of existing diesel vehicles and equipment
- We are building a market for clean diesel concepts
 - Accelerating the delivery of ULSD
 - Forging business partnerships and relationships
 - Investing EPA resources to accelerate market growth

Why Retrofits are Necessary

- Health Reasons
 - Reductions in PM, NO_x, and air toxics
 - Diesel PM is a likely human carcinogen
 - Respiratory problems, Environmental Justice
- Visibility, Regional Haze
- Diesel Engines can last 20-30 years
- The Voluntary Diesel Retrofit Program deals with existing engines today
 - Benefits are immediate
 - Technology is available
 - Gaining valuable experience using these technologies early

What is Retrofit Technology?

- Retrofit technology can be:

any change to an engine system above and beyond what is required by EPA regulations that improves the engine's emission performance:

- Catalyst or filter
 - Engine upgrade or engine re-flash
 - Use of early engine replacement
 - Cleaner fuels or additives
 - Idling control equipment
 - “Neofits”
 - Combination of above
- Program verifies the effectiveness of retrofit technology

The Role of Diesel Fuel

- The foundation of many retrofit projects will be the fuel supply
 - Many technologies require Ultra Low Sulfur Diesel (ULSD) Fuel
 - Some can operate on current fuel but can not achieve full emission reduction potential
 - Generally, PM filter with ULSD achieve PM reductions over 90%
- ULSD is becoming more widely available throughout the country
 - Several fuel companies can distribute ULSD today in specific regions
 - EPA expects use of pipelines over the next year to deliver ULSD bringing costs down

ULSD Availability

- Several oil companies are producing/delivering ULSD today
 - BP Great Lakes, California
 - ConocoPhillips Pacific Northwest, Northeast
 - Sprague Northeast
 - Sunoco Northeast
 - Valero Texas
- ULSD is currently available in many cities in these regions for an incremental cost
 - Today, the key component in this cost is a transportation charge

For Further Information...

Website: www.epa.gov/otaq/retrofit

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