



# EPA Alternative Fuel Conversion Policies

- Common Misconceptions
- Where We Are Today
- EPA Next Steps

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Alternative Fuel Vehicle Institute Conference  
April 19, 2009



# Common Misconceptions

- Vehicle combustion of alternative fuels is always cleaner than combustion of petroleum-based fuels
- Fuel conversion to an alternative fuel is easily done and without emissions consequences
- Certification of an alternative fuel conversion demonstrates that the vehicle is cleaner than it was before the fuel conversion
- New test data must be obtained and submitted every year for the same OEM vehicle
- Converters pay higher fees due to obtaining a new certificate each year
- Vehicles certified as EPA LEV (Low Emission Vehicle) compliant are meeting the EPA's cleanest emission standards

# Other Misconceptions



- "Successful" alternative fuel conversion programs in other countries means alternative fuel conversion must be clean and good for the U.S.
- Demonstrating compliance with a state Inspection Maintenance (I/M) test ensures the fuel converted vehicle is low emitting
- If you convert less than 5 vehicles per year you do not have to certify the conversions with the EPA
- If the "basic engine" is the same from one model year to the next, successful certification on one OEM test group is proof that conversions of all similar vehicles will be low-emitting
- Passing emission standards at an independent laboratory ensures the test vehicle will pass the required confirmatory testing at EPA
- OEM hybrid electric vehicles converted to aftermarket plug-in hybrids will easily meet EPA emission standards
- You don't have to certify a conversion to a battery electric vehicle

# Today: EPA Certification Is Required for Protection from Tampering



- Certification demonstrates that the vehicle meets the same standards as OEM vehicle on original fuel
  - Since 2002 over 275 certificates have been issued to 15 light-duty vehicle fuel converters
- Certificates issued on a “test group” specific basis
- California and Section 177 states may also have additional certification requirements



# Concerns with Current Process

- Test group level certification doesn't fit converters' business model
- Certification requirement may drive some conversion activity underground
- Difficult for converters to obtain important OEM information
  - Catalyst loading
  - Fuel control strategy
  - OBD specifics
- Certification process never designed for higher mileage old vehicles
- Converter application review requires disproportionate EPA time

# Current Policy Adjustments



- Flexibility in combining OEM test groups
  - Approval based on case-by-case specifics
  - Follows basic CFR guidelines
- Flexibility in approving OBD systems for fuel conversions
- Have accepted NMHC data in lieu of full NMOG for gaseous fuels
  - Approved on case-by-case basis
- Fuel converters use alternative application and data entry process for 2009 MY certification
- New guidance letter addresses issues and questions since 06-02 guidance letter
  - Release expected soon

# Select Highlights of Draft Guidance



- How to access the EPA Verify data entry system
  - Must be used for 2010 model year certification
- Instructions for finding EPA documents, e.g. certificates and OEM applications for certification on the internet
- New information specific to vehicles converted to operate on ethanol, vegetable oil, hydrogen, electricity
- Link to fuel registration requirements for select fuel types
- Conversion of vehicles outside of EPA defined useful life
- Link to EPA Green Vehicle Guide showing how “test groups” relate to real world vehicles
- Updated EPA contact information

# Current Policy on Converting Vehicles Outside of EPA Useful Life



- At present, certification is the only assurance that protects fuel converters from a tampering violation
- However, EPA cannot issue certificates for fuel converted vehicles which are outside of EPA's defined full useful life
  - Light-duty vehicles typically 10 years/120,000 miles
  - Light-duty trucks and heavy-duty chassis certified vehicles typically 11 years/120,000 miles
- No certain “safe harbor” available for conversion of vehicles outside useful life
- Converters may reduce risk of tampering charge by documenting through reliable testing that conversion does not increase emissions
- Tampering violations/questions will be directed to EPA's Office of Enforcement



# New Regulations For Fuel Conversions



- Regulatory process underway
  - Expect proposal in December, 2009
- Will involve significant stakeholder input
- Objectives:
  - Clarify and streamline process
  - Ensure fuel conversions are clean
  - Reduce current reporting requirements
  - Reduce EPA administrative burden
  - Maintain EPA oversight and enforcement authority
- Information updates available at:
  - <http://epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm>
    - Sign-up for e-mail updates using link to “Enviroflash”

# Initial Concepts for Regulatory Proposal



- More flexibility in combining OEM test groups
- Reporting requirements may vary as function of vehicle age, e.g.
  - Maintain certification requirements for new vehicles
  - Allow alternate demonstration for older vehicles
- More flexibility in OBD compliance demonstration
- Allowance for use of adjustment factors in demonstrating compliance with NMOG for gaseous fuels; compliance statement for HCHO
  - Must be supported by data

# Outreach Activities: Essential Companion to Rulemaking



- Guidance Document
- Fact Sheets
  - Information for consumers and installers
  - Status/release of fact sheets posted on EPA alternative fuels web site
- Regulatory Actions
  - Announcement of location and link to website for public comment on Notice of Proposed Rulemaking (NPRM)
  - Use process as opportunity to correct misconceptions and seek input from affected stakeholders
- Looking for ideas

# Contact Information



- Light-Duty Vehicle Conversions (All vehicles <8500 lbs GVW, some gasoline and diesel chassis certified vehicles 8501-14,000 lbs GVW):
  - Martin Reineman, [reineman.martin@epa.gov](mailto:reineman.martin@epa.gov)
- Heavy-Duty Engine Conversions (All vehicles >14,000 lbs GVW, some engine certified gasoline and diesel vehicles 8501-14,000 lbs GVW):
  - Greg Orehowsky, [orehowsky.gregory@epa.gov](mailto:orehowsky.gregory@epa.gov)