



EPA Alternative Fuel Conversion Policies

- Current Situation
- Proposed Regulation Changes

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Today: EPA Certification Required for Protection from Tampering



- Certification demonstrates that the vehicle meets the same standards as OEM vehicle on original fuel
 - Since 2002 about 325 certificates have been issued to 15 light-duty vehicle fuel converters
- Certificates issued on a “test group” or “engine family” specific basis
- California and Section 177 states may also have additional certification requirements

Conversions Guidance Updated June 2009



- How to access the EPA Verify data entry system
 - Must be used for 2010 and later 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
- Information for converters interested in combining OEM test groups
- Links to fuel registration requirements for select fuel types
- Link to EPA Green Vehicle Guide showing how “test groups” relate to real world vehicles
- Updated EPA contact information

New Regulations for Fuel Conversions - Objectives



- Design a program that balances many interests – converters, states, OEMs, Clean Air Act requirements
- Implement a policy that is:
 - Legal
 - Fair
 - Protective of the environment
 - Flexible enough to accommodate new technologies
 - Readily understood by the public
 - Straightforward for converters
 - Practical for EPA to implement and enforce
- Rulemaking needed to change current policy in CFR Part 85, Subpart F

New Regulations For Fuel Conversions – Recent History



- Began development over a year ago
- Substantial stakeholder input considered in developing proposal:
 - States
 - Fuel converters
 - OEMs
 - Enviro
- NPRM signed by EPA Administrator on May 5th

New Regulations For Fuel Conversions – Development Timetable



- NPRM published in Federal Register May 26th
- Public hearing held in Ann Arbor June 23rd
- Comment period ended July 23rd
- EPA is analyzing and addressing comments now
- Anticipated final rule signature before end of year
- Final rule effective 30 days after signature



Overview of Proposal

- Scope
 - Fuel neutral - covers all fuels (gaseous, alcohol, electricity)
 - On highway LD vehicles, HD vehicles and engines
- Establishes age-based compliance categories with different demonstration requirements
 - “New” vehicles/engines
 - Intermediate-age vehicles/engines
 - Outside EPA defined useful life vehicles/engines
- Streamlines reporting process
- Maintains EPA oversight

Proposed Requirements for all Converters



- Must satisfy general criteria to obtain exemption from tampering
 - Conversion to clean alternative fuel
 - Meet applicable standards
 - Good engineering judgment
- Must provide technical info for EPA evaluation through “notification” process
 - Specific submission requirement varies by age
- Maintains test group or engine family as unit of compliance
 - Grouping criteria more flexible than current CFR but still includes boundaries to ensure technical viability and facilitate EPA review (same mfr, MY)
 - Must use “worst case” emissions data vehicle to represent test group
- Maintains existing small volume manufacturer flexibilities for converters
 - Assigned DFs, no fuel economy labeling or CAFE reporting
- EPA can request additional data to support converters demonstration and can chose to conduct confirmatory and in-use compliance testing
- Warranty and vehicle/packaging labeling requirements apply



Summary of Age-Based Proposal

Age Category	Demonstration Requirement	Exhaust	Evap	OBD
New: < 2 years old	Certification	FTP data	Evap + Refueling data	OBD data
Intermediate: > 2 years old but inside useful life	Meets standards	FTP data	Evap + Refueling data	Attestation
Outside Useful Life	Three options	1)Tech descrip 2) FTP or back- to-back testing 3) OBD scan	Attestation	Attestation

New Vehicle/Engine Program Proposal



- Retains current certification requirements for new vehicles/engines (< 2 years old)
 - Keeps level playing field for OEM products and alt fuel converters modifying “new” vehicles
 - Vehicles < 2 years old still representative of certified configuration
 - This age group represents the bulk of current conversions
- Would reduce manufacturer burden significantly:
 - Allows converters to combine OEM test groups
 - Converters can transfer into intermediate-age program once age threshold is met – annual re-certification and fees no longer required



Intermediate Age Program Proposal

- New demonstration/notification option for intermediate-age vehicles/engines (> 2 years and < EPA defined useful life)
- Would significantly reduce burden compared to certification requirement
 - Must submit data from FTP/evap testing to demonstrate compliance with standards
 - OBD testing no longer required – converter must attest that OBD still works
 - Further flexibilities for expanded test groups
 - Submit demonstration data via EPA template (outside Verify data system)
 - Eliminates need for annual recertification
- No certificate of conformity issued
 - System becomes compliant upon EPA receipt/review of proper notification package
 - EPA will maintain publicly available list (e.g. via web site) of systems that have satisfied demonstration and notification requirements
- Intermediate-age converters may still choose certification
 - Some converters prefer status and authority conferred by certificate

Outside Useful Life Program Proposal



- NPRM requests comment on three demonstration options (one demonstration will be finalized)
 - Option 1: Good engineering judgment
 - Option 2: Good engineering judgment + FTP testing
 - Meet inside useful life standard or do back-to-back testing
 - Option 3: Good engineering judgment + OBD scan



Technical Amendments to Part 86

- Proposal includes provisions to make alternative fuel testing requirements more consistent across fuel types
 - Would apply to both OEMs and converters
- Exhaust emissions
 - Allows adjustment factors (supported by data) to convert NMHC to NMOG
 - Currently full NMOG speciation still required
 - Allows use of a compliance statement (supported by data) in lieu of data for formaldehyde
 - Currently only allowed for gasoline and diesel testing
- Evaporative emissions
 - Allows use of compliance statements for evaporative emissions, running loss, and refueling loss for all gaseous fuels
 - Currently allowed only for CNG and LPG



EPA Contact Information

- Questions concerning the NPRM:
 - Amy Bunker, bunker.amy@epa.gov
- Certification Questions: 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
- Certification Questions: Heavy-Duty Engine Conversions (All vehicles >14,000 lbs GVW, some engine certified gasoline and diesel vehicles 8501-14,000 lbs GVW):
 - Steve DeBord, debord.steven@epa.gov
- Enforcement Issues: Office of Enforcement and Compliance Assistance (OECA) tips-line -
<http://www.epa.gov/compliance/complaints/index.html>