U.S. Environmental Protection Agency
Vehicle Compliance Programs

Presentation to WP.29 Meeting
November 17, 2011
EPA Compliance

• EPA’s authority for its vehicle compliance activities comes from the Clean Air Act
  – Section 202: general standard-setting
  – Section 206: motor vehicle compliance testing and certification
  – Section 207: compliance by vehicles and engines in actual use
  – Other sections include penalty provisions, right of EPA to request information and inspect facilities

• Standards apply for full useful life of a vehicle or engine

• Responsibility for meeting standards and conducting many emissions tests falls on manufacturer
Compliance Programs

• Statutory and regulatory testing programs together monitor emissions performance of vehicles from pre-production through full useful life
• Manufacturer responsibilities:
  – Certification information for pre-production vehicles
  – Production line testing
  – Selective Enforcement Audits
  – In-use testing
• EPA responsibilities:
  – Confirmatory testing
  – In-use testing
• Manufacturers are also responsible for reporting defects and warranty claim information to EPA
  – EPA uses to target compliance activities, initiate recalls or service campaigns
Light-Duty Vehicle Compliance

• EPA has a mature, successful compliance program for motor vehicles
  – In the last two years:
    • EPA has conducted about 300 confirmatory tests
    • EPA has tested about 50 in-use multiple vehicle test classes
  – In the last ten years, manufacturers have conducted thousands of tests on in-use vehicles
    • Exhaust and evaporative testing
    • 0-10% test failures shown across the model years and testing categories

• Manufacturers recall approximately 3M vehicles/year with emissions-related issues
Other vehicles and engines

- Compliance programs for heavy-duty and off-road engines modeled on light-duty vehicle program
  - Pre-production information for certification
  - EPA and manufacturer testing of production line and in-use vehicles
  - Defect and warranty claim information
Compliance Schedule for Light-Duty Vehicles

EPA Confirmatory Testing, Random and Targeted

EPA Reviews Initial Manufacturer Application

Vehicle Design and Build

EPA Reviews Final Manufacturer Application

EPA Issues Certificate of Conformity

EPA In-Use Surveillance Testing

Manufacturer Prototype Vehicle Emissions and Durability Testing [Representative of Production]

Low-Mileage In-Use Verification Testing Performed by Manufacturer

High-Mileage In-Use Verification Testing Performed by Manufacturer

End of Useful Life (per CAA) [Emission Levels Predicted Via Certification Durability Testing]

0 Miles, 10,000 Miles, 20,000 Miles, 50,000 Miles, 90,000 Miles, 120,000 Miles
Compliance Schedule for Certain Heavy-Duty Highway and Nonroad Engines
Vehicle and Engine Emissions Data used by EPA & Stakeholders

• Compliance Report
  http://www.epa.gov/otaq/about/420r10022.pdf

• Emissions Standard Reference Guide
  http://www.epa.gov/otaq/standards/allstandards.htm

• Engine Certification Data
  http://www.epa.gov/otaq/certdata.htm

• Vehicle Certification Data
  http://www.epa.gov/otaq/crttst.htm

• Recalls
  – http://www.epa.gov/otaq/recall.htm
Vehicle and Engine Emissions Data used by EPA & Stakeholders

• Green Vehicle Guide
  http://www.epa.gov/greenevehicles/Index.do

• Fuel Economy Trends Report
  http://www.epa.gov/otaq/cert/mpg/fetrends/420r10023.pdf

• EPA Web site and Document Index System
  http://iaspub.epa.gov/otaqpub/

• Fuel Economy Guide
  (Department of Energy)
  http://www.fueleconomy.gov/feg/printGuides.shtml
WP.29 Environmental Compliance Coordination

• Identification of areas of public information that can serve as tools for compliance managers
• Comparison of testing priorities - synergies and data sharing
• Identify on-going methods to exchange compliance concerns in a timely manner
• Regular discussion of identified technologies/manufacturers with compliance concerns