



Advanced Petroleum-Based Fuels - Diesel Emissions Control (APBF-DEC) Activity



DEER Conference

August 25, 2003

Newport RI



APBF-DEC Mission



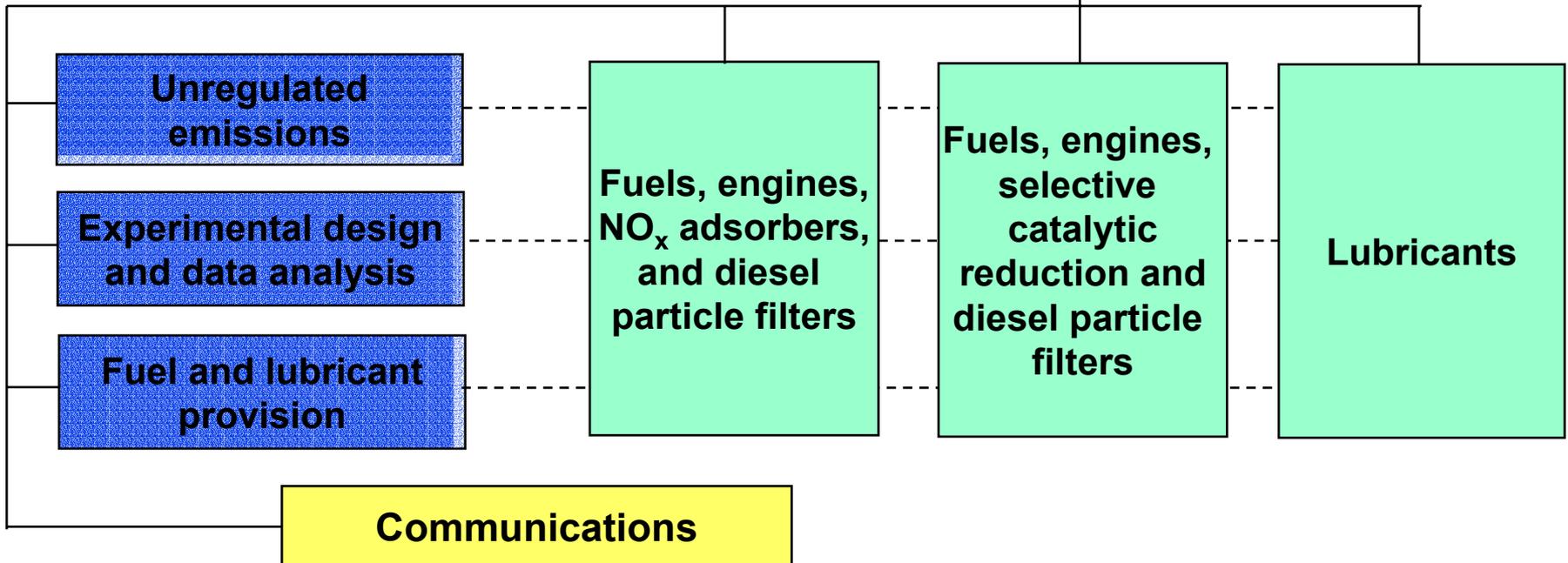
- Identify optimal combinations of fuels, lubricants, diesel engines, and emission control systems to:
 - Meet projected emission standards during the period 2000 to 2010 while maintaining continuous improvement in engine efficiency and durability
 - Maintain customer satisfaction with vehicle performance
 - Provide the basis for economical transport of people and goods
 - Meet additional potential constraints (e.g., emissions of unregulated substances, including ultra-fine particulate matter and greenhouse gases)
- Explore the potential to achieve even lower emissions of criteria and unregulated pollutants beyond 2010

APBF-DEC Structure



DOE, EPA, additive companies,
automobile manufacturers, engine
manufacturers, energy companies,
emission control mfrs., Calif. agencies

**APBF-DEC
Steering Committee**



APBF-DEC Products



- Light and heavy-duty platforms for measurement of **effects of fuel and lubricant composition** on emissions under transient operation
- Comprehensive data on status of fuel-engine-emission control technologies for reducing criteria emissions for **U.S. EPA's ongoing technology assessments**
- Comprehensive data on effects of fuel & lubricant properties on emissions of **unregulated** substances

ABPF-DEC Projects



Projects	Contract Labs	Technical Monitors	Project Managers 
Pass Car NAC/DPF	FEV 	Matthew Thornton NREL	DOE
SUV/Pick-up NAC/DPF	SwRI 	Matthew Thornton NREL	DOE
Heavy-Duty NAC/DPF	Ricardo 	Shawn Whitacre NREL	DOE
Heavy-Duty SCR/DPF	SwRI 	Ralph McGill ORNL	DOE
Lubricants	ATL/AEI	Shawn Whitacre NREL	DOE

Participating Companies/Organizations



Automobile:

DaimlerChrysler
Ford
GM
Toyota

Government:

CARB/SCAQMD
DOE
EPA
NREL
ORNL

Emission Control:

Argillon
ArvinMeritor
Benteler
Clean Diesel Tech.
Corning
Delphi
Donaldson Co.
Engelhard
Johnson Matthey
MECA
NGK
Rhodia
Robert Bosch Corp.
STT Emtec AB
Tenneco Automotive
3M
Umicore

Energy/ Additives:

American Chemistry
Council
API
BP
Castrol
Chevron Oronite
ChevronTexaco
Ciba
Conoco-Phillips
Crompton
Ergon
Ethyl
ExxonMobil
Infinium
Lubrizol
Marathon Ashland
Motiva
NPRA
Pennzoil-Quaker State
Shell Global Solutions
Valvoline

Engines:

Caterpillar
Cummins
Detroit Diesel
EMA
International Truck
& Engine
John Deere
Mack Trucks

Technology:

Battelle