



# **Advanced Collaborative Emissions Study (ACES)**

*Cooperative multi-party effort to characterize emissions and possible health effects of new advanced heavy duty engine and control systems and fuels in the market 2007 – 2010.*

## **DEER 2009 Poster P-9**

Dan Greenbaum<sup>1</sup>, Maria Costantini<sup>1</sup>, Annemoon van Erp<sup>1</sup>, C. Tennant,<sup>2</sup> Jake McDonald<sup>3</sup>, Joe Mauderly<sup>3</sup>

<sup>1</sup>Health Effects Institute, Boston MA; <sup>2</sup>Coordinating Research Council, Atlanta, GA <sup>3</sup>Lovelace Respiratory Research Institute, Albuquerque NM

### **PROJECT SPONSORS**

DOE OVT and NETL

Engine Manufacturers Association (EMA)

US Environmental Protection Agency (EPA)

California Air Resources Board (ARB)

American Petroleum Institute (API)

Aftertreatment Manufacturers

Coordinating Research Council (CRC)

# Evaluating Emissions of Advanced Technology Diesels

- New 2007/2010 engine/control systems and fuels designed to result in substantially reduced emissions.
- Substantial public health benefits are expected from these reductions.
- *But*, with any new technology it is prudent to ensure there are no adverse impacts to public health and welfare.

## ACES is moving to answer these important questions:

Phase 1: 2007 Engine Emissions Characterization (CRC and SWRI)

*Report Complete ([www.crao.org](http://www.crao.org))*

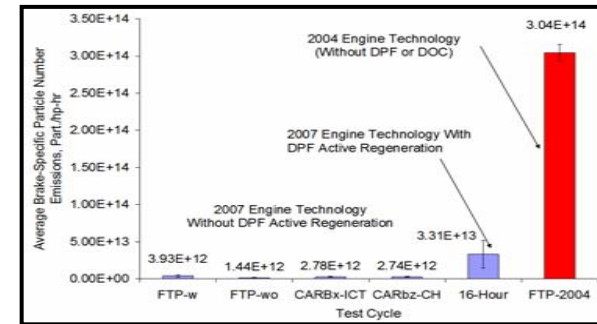
*Dramatic reductions!*

*Imad Khalek (SwRI) presents*

*830 Thursday AM*

Phase 2: 2010 Engine Emissions Characterization

*Planning Underway*



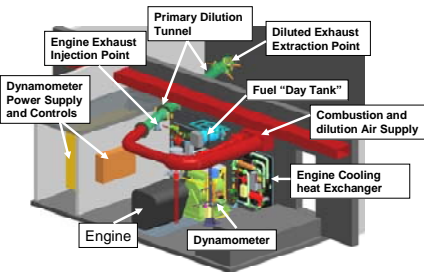
Phase 3:

2007/2010 Engine Health Effects Testing (Lovelace Respiratory Research Institute (LRRI))

❖ *Short Term biological screening and Long-Term Health Effects Test on 2007 Engines*

*Emissions set-up nearly complete (Phase 3A)*

*Health testing to begin this Fall (Phase 3 B)*



**Come Visit Us at Poster P-9!**