

# **Fuels Workshop on Regulatory and Non-Regulatory Fuels Activities for 2005**

**February 14, 2006**

**California Environmental Protection Agency**

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**Air Resources Board**

# Agenda

- Introduction
- Gasoline
  - E-85 Demonstration Program
  - Proposals for Flexibility, Enforceability, and Consistency
  - Predictive Model
  - Permeation
  - CRC E-67 Test Program
  - CARBOB Model Validation
- Diesel
  - Low-Sulfur Implementation
  - Lubricity
  - BioDiesel
- Other Topics?
- Open Discussions
- Closing Remarks

# Discussion Topic: Gasoline

# E85 Demonstration Program

## AB 1007

- Requires the development of recommendations for a state plan to increase the use of alternative transportation fuels.
- Assigns lead responsibility for developing the recommendations to the California Energy Commission in consultation with the Air Resources Board
- Requires the plan to be developed and adopted not later than June 30, 2007.

## E85 Demonstration Program

- State enter into agreement with GM, Chevron (CTV), and Pacific Ethanol to learn more about consumer awareness and acceptance of E85 as a motor vehicle fuel.
- FFVs, 50 to 100, in CalTrans fleet will use E85 at various locations for about 1 year.

# Proposal for Flexibility, Enforceability, and Consistency

# Permeation Test Program

- In 2002, the CRC and ARB co-funded permeation study
- Results:
  - Ethanol fuel higher than MTBE on all vehicles and higher than non-oxy on almost all vehicles
  - 65% or 1.4 grams/day more than MTBE gasoline
  - 45% or 1.1 grams/day more than non-oxygenated gasoline



## What's Next

- ➡ The CRC is proceeding with a second stage of the test program
- ➡ Two additional vehicles: LEV II and PZEV
- ➡ Two additional fuels: 10% ethanol and a higher aromatics fuel
- ➡ E-85 will also be tested on an flexible fueled vehicle
- ➡ E20 will be added to fuels matrix
- ➡ Final Report

## New Data Sets

- ☞ Toyota Data – Effects of Ethanol on Emissions of Gasoline LDVs
- ☞ AAM/AIAM/Oil Industry Low Sulfur and Oxygenate Test Program
- ☞ CRC E-67 Evaporative and Exhaust Emissions from Ethanol/Gasoline Blend Fueled Vehicles
  
- ☞ Tech 5 or Tech 6 Vehicles?

# CRC E-67 Test Program

A Presentation by Mike Ingham

# Predictive Model

- Committed to the Board to review need for update about every 5 years – last updated 1999
- Issues
  - Permeation
  - Carbon Monoxide
  - New Data
  - Emissions Inventory Model – EMFAC
  - High Emitters
- Present Proposal for new model to Board in 2006

# CARBOB Model Validation

- CARBOB regulation approved by Board April 25, 2001
- CARBOB regulation allows refiners to certify blends without having to do hand blends of ethanol
- The Board directed staff to validate the CARBOB model using Phase 3 RFG
- Refiners have submitted their data
- Report expected this summer

# Topics: Diesel

# Implementation of Low-Sulfur Diesel Fuel Regulations

- Low-Sulfur regulation approved by Board in 2003
- Implemented in 2004
- Requires 15 ppmw sulfur limit on California motor vehicle diesel fuel
  - June 1, 2006 – Refinery
  - 45 days later – Terminals
  - 45 days later – Retail Outlets

# Implementation of Low-Sulfur Diesel Fuel Regulations

- Section 2281(g) requires that each producer provide an updated version of their compliance plans to ARB Executive Officer
- So far, all California refiners appear to be on schedule and are expected to meet the June 1, 2006 limit of 15 ppmw
- Will be contacting industry representatives regarding implementation



# Lubricity

- ARB approved a lubricity standard for motor vehicle diesel fuel in 2003
- ARB provision sunset when Division of Measurement Standards start enforcement
- Division of Measurement Standards is surveying the statewide diesel fuel pool to assess the current state of lubricity in California

# BioDiesel - Update

## Other Topics?

- California Wintertime Oxygenate requirement for CO Non-Attainment Area - LA

# Open Discussions

# Closing Remarks