

# **Meeting to Discuss Issues Relating to the California Phase 3 Reformulated Gasoline Regulations**

**May 4, 2000**

**California Environmental Protection Agency**

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**Air Resources Board**

# Agenda

- ◆ Introductions
- ◆ Topics of Discussion
  - Denatured Ethanol Specifications
  - Permeation
  - CAROB Regulation
  - Storage tanks change of service
  - ARB's Request for an Oxygenate Waiver
  - The Predictive Model and EMFAC200
  - Small Refiners
  - Commingling
  - Update to the Board In July
- ◆ Presentation from Others
- ◆ Schedule Next Meeting

## ◆ Denatured Ethanol

- Specifications for denatured ethanol for use in motor vehicles fuels
- Proposal to the Board by October 2000

## ◆ Permeation emissions

- Update the Board in October 2000 on the potential increase in hydrocarbon emissions from material permeability with the use of ethanol in gasoline
- Report to the Board on the results of permeability testing by December 2001

The ARB is planning to enter into a contract with Harold Haskew & Associate, Inc, to investigate the effects of ethanol on permeation emissions. Work to include:

- A literature search regarding the permeation of fuel system materials
- Collect information regarding the distribution of materials across make, model , and technology of the vehicles in the 2003 time frame
- Collect information on the distribution of vehicles in the California fleet
- Estimate fleet wide effect of permeation emissions

◆ CARBOB regulations

- Amendments to CaRFG to assure the practical and effective implementation of the on CARBOB and imported gasoline
- Proposal to the Board by October 2000

◆ Storage Tanks Change of Service

- ◆ Continue to pursue the U. S. EPA oxygen waiver
  - Continue to support request to U. S. EPA to waive the application of the federal RFG year-round 2.0 wt.% Minimum oxygen requirement for federal RFG areas

- ◆ The Predictive model and EMFAC2000
  - Once EMFAC 2000 is approved by the ARB, the weighting of evaporative, exhaust, and CO emissions, and the balancing of tech groups in the predictive model will be modified to reflect the EMFAC 2000 emissions inventory
  - Delayed from April Board Meeting

◆ Small refiner

- Amendments to the ARB's diesel fuel regulations to incorporate a mechanism for small refiners to fully mitigate any increased emissions associated with CaRFG3 small refiner provisions
- Proposal to the Board by October 2000

- ◆ Commingling of ethanol gasoline with on-oxygenated gasoline
  - Determine the expected real-world emissions impact in 2003 and beyond
  - Report to the Board with any recommendations by December 2001

- ◆ Study to Investigate the Effects from the Commingling of EtOH Blends and Non-Oxygenated Gasoline. Data Collected in the study to include:
  - Range of ethanol content
  - Base fuel RVP of ethanol blends
  - Market share of ethanol
  - Volume in tank (before and after purchase)
  - Percent of time tank is filled
  - RVP-before and after purchase (sampling)
  - Mean fill fraction when tank is not filled
  - Information on distribution of fuels by regions

## ◆ Driveability index

- Transmitted to the U. S. EPA the board's recommendation to adopt a nationwide DI standard to assure the adequate emissions performance of existing and advanced technology motor vehicles
- Evaluate the DI of in-use CaRFG to determine whether the in-use-DI levels are adequate to minimize any adverse impacts on the DI levels on the in-use emission performance
- Report to the Board by 2004

- ◆ Work with local air quality management districts and local communities to address potential impacts from an increase use of cargo tank trucks to transport ethanol
- ◆ Provide the Board with update every 6 months on the of the implementation of the directives