



# E85 Fuel Ethanol Retail Issues

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**California Department of Food and Agriculture  
Division of Measurement Standards**

**Integrated Energy Policy Report Workshop  
April 14, 2009**



## Division Mission Statement

***Preserve and defend the measurement standards essential in providing the citizens a basis of value comparison and fair competition in the marketplace***



# Authority

**Authority to regulate Weights and Measures and Fuel Products is found in Division 5 of the California Business and Professions Code**





# Alternative Fuels

## CDFA Responsibilities

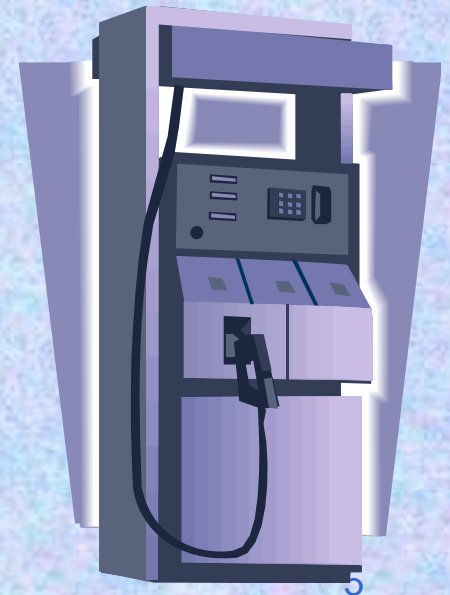
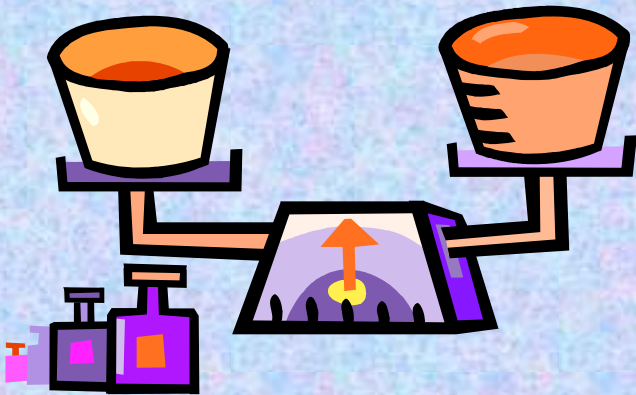
- ❖ **Division of Measurement Standards (DMS) role in alternative fuel development**
  - ✓ **Ensure Measurement Traceability**
  - ✓ **Promote Uniform Requirements and Practices**
  - ✓ **Ensure Consumers Get What They Pay For**
  - ✓ **Level Playing Field in the Marketplace**
  - ✓ **Harmonize with International Standards**





# Commercial Measuring Device

*A device used for ascertaining the measure of any commodity or thing which is sold on the basis of measure; or the determination of the measure of any commodity or thing upon which determination a charge for service is based.*





# Alternative Fuels

## Division Responsibilities

- **Type Evaluation**
  - National and California Type Evaluation Program
- **Device Accuracy**
  - CA Device Compliance Program
- **Fuel Quality, Advertising, Labeling, and Quantity**
  - CA Petroleum Products Program
- **State / County Relationship**



# CA Petroleum Products Program

## ❖ National Standards Organizations Participation

- Establish uniform standards to enhance consumer protection
- Foster fair competition
- Facilitate economic growth and trade





# Standards Organizations

❖ ASTM International, Inc.



❖ Society of Automotive Engineers



❖ National Institute of Standards and Technology

National Institute of  
Standards and Technology



NIST





# E85 Fuel Ethanol





# E85 Fuel Ethanol

- ❖ **E85 is a mixture of up to 85% denatured ethanol and gasoline or other hydrocarbon by volume (minimum content is 70%)**
- ❖ **Approximately 6.8 million flexible fuel vehicles (FFV) designed to run on blends up to 85% ethanol in U.S. today**
- ❖ **Fifteen service stations in California now offer E85 Fuel Ethanol to the public**



# E85 Fuel Ethanol

## ❖ Energy Content

- E85 has about 27% less energy than gasoline

## ❖ Cost per mile to consumers

- Impacted by relative cost of ethanol and gasoline
- *Gasoline Gallon Equivalent (GGE)*







# E85 Fuel Ethanol

- ❖ **E-85 Dispensers are type approved by National Type Evaluation Program for commercial use but...**
  - **Not Underwriters Laboratories approved**
  - **State and Local Fire Marshals may grant use permits**
- ❖ **Not all State and County test standards (provers) are suitable for the corrosive nature of the fuel**
  - **New test standards are necessary**



# E85 Fuel Ethanol

- ❖ **The Department does not currently have the equipment needed to test this product**
- ❖ **Any complaint samples must be tested by an independent laboratory**
- ❖ **The Division is going to have to prepare to test the quality of E85 fuel**





# E85 Fuel Ethanol

- ❖ **Marketplace cannot move to different concentrations of ethanol and gasoline mixtures without lawful standards**
  - **Developmental Fuels Variance Program**
  - **Assist with development of consensus standards**
  - **Adopt standards as they are approved**







# E85 Labeling

- ❖ **Labeling regulations are not consistent for E85**
  - **Federal vs State**
    - **Product name – E85 Fuel Ethanol vs. E85 vs. FFV Fuel vs. Ethanol FFV**
    - **Fuel Rating – % Ethanol vs. Octane**
  - **Consumer warnings – vehicle fuel compatibility ; possible Clean Air Act violations**
  - **New laws have to be established**





## Contact Information

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