

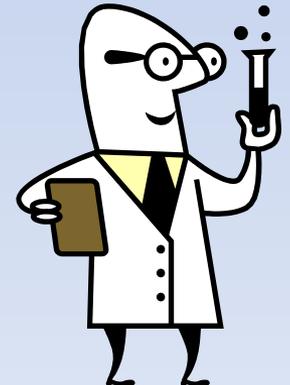
California
Department of Food and Agriculture
Division of Measurement Standards
Petroleum Products Program
Fuels and Lubricants Laboratory

BAR Advisory Group Meeting
Wednesday, July 9, 2014
Allan Morrison



CDFA Division of Measurement Standards

- **Metrology Laboratory**
- **Compliance & Evaluation**
 - Device Type Evaluation
 - Measurement Compliance
 - Registered Service Agency
- **Weighmaster**
- **Petroleum Product Program**
 - Enforcement
 - Laboratory



Division of Measurement Standards Mission Statement

“To preserve and maintain the standards of measurement essential in providing a basis of value comparison and fair competition in the marketplace.”

DMS's Role in Petroleum Products?

The Petroleum Products Program maintains and enforces the minimum performance and drivability standards for most petroleum and automotive products sold in California. Additionally, the Program regulates the advertising and labeling of these products.

Why?

The Gasoline and Oil Substitution Act of 1931 protected the motoring public from the misrepresentation of gasoline and lubricating oil.

To protect the consumers.

To provide for fairness and equity in the market place

To protect the safety of all Californians

The National Conference on Weights and Measures (NCWM) and NIST

- Under the US Constitution, the States are responsible for the Weights and Measures functions.
- NCWM members are all 50 states, US Territories, and Tribal Nations.
- NCWM develops model laws and regulations that its members can adopt for their use.
- NIST publishes these model laws in Handbooks
- Handbook 130: Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality
- California does not adopt Handbook 130, for use with Petroleum or Automotive products quality or labeling
- California's specific requirements are found in the Business and Profession Code or the California Code of Regulations





My Car



How do you know you are getting the product you purchased?

You do not touch the product

You do not see the product

You surely do not taste the product

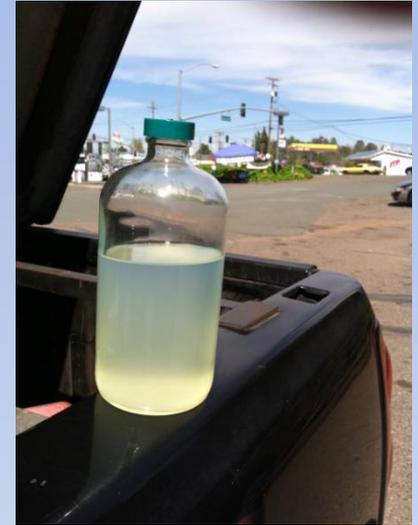
Quality testing is the only way

That is what the Petroleum Products Program does

Laboratory Testing



Field Inspection

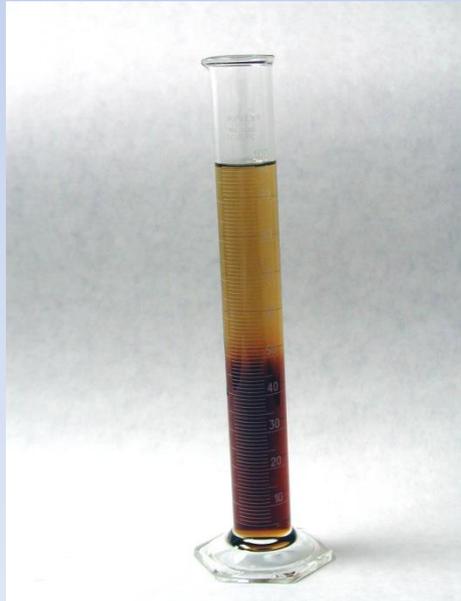


Product Mixing



← Start of Test

Darker oil
poured on
top of
lighter oil



← After 15 minutes

After 3 weeks



Condemned Products



Labels are Important



5-30 ECONOMY MOTOR OIL

US Economy is a lubricating oil, its designed for older model automobiles. 5-30 means the viscosity range from 5 to 30, it does not meet newer car manufacture's warranty requirements. Only use to top off. Always consult your owner's manual for proper service requirement.

Don't pollute, conserve resources. Return used oil to collection centers.

Caution: Avoid prolonged contact with motor oil. Continuous contact with used oil has caused skin cancer in laboratory animals. Wash skin with soap and water after contact. Launder or discard soiled clothes.

KEEP OUT OF REACH OF CHILDREN.

This not a 5W-30 oil

GMD Inc., Chicago, IL 60632
www.usglobalpetroleum.com
MADE IN U.S.A.



How Do You Pay For It?

- Motor Oil Fee
 - Collected on bulk or packaged Motor Oil produced or imported for use in the State
 - Capped at 5 cents per gallon
 - Currently 4 cents per gallon
 - Returning to 3 cents per gallon January 1, 2018
 - Current revenues about 3.9 million dollars
 - Cost to each Californian is about 10 cents per year



What Do You Get For Your Money

Products Sampled

- Motor Vehicle Fuels
- Motor Oil
- Gear Lube
- Automatic Transmission Fluid
- Brake Fluid
- Engine Coolant
- Home Heating Oil and Kerosene

Petroleum Program Field Staff

- Northern, Central, and Southern California Offices
- Random Sampling
- Response to Complaints
- Follow-up Investigations
- Remove Out of Specification Product from Sale
- Misdemeanor and Civil Penalties
- Training of County Weights and Measure Officials

Market Place Surveillance

- Retail Motor Vehicle Fuel Station Signage
- Bulk Product Storage Tank Labeling
- Dispenser Labeling
- State and County Inspectors Station Audits
- Retail Package Labeling

Where Do We Sample?

- Initially at the point of transfer of product from seller to buyer at retail
 - Retail Stores
 - Gasoline and Diesel Service Stations
 - Quick Lube and Oil Change Locations
 - Auto Repair Facilities
 - Never From Consumer's Tanks

Once a Problem is Found

- We work up the supply chain
 - Bulk Transport
 - Bulk Storage Location
 - Wholesale Warehouse Locations
 - Product Producers

Laboratory Analysis

- Fuels
 - Water & Sediment, Vapor Pressure, Flash Point, Distillation, Biodiesel Content, Ethanol Content, and Octane (R+M/2)
- Motor Oil, Gear Lube, and ATF
 - Water & Sediment, Viscosity, Noack, Additive Metals, Flash Point
- Engine Coolants
 - Freeze Point, Boiling Point, RA, pH, Chloride, Sulfate, Organic Acids, Sediment
- Brake Fluid
 - Boiling Point, Water & Sediment

Where do the Quality Specifications Originate

State Law requires:

- All Fuels have an SAE or ASTM specification
- Motor oil and Gear Lube meet SAE specifications
- Engine Coolants meet ASTM specifications
- Brake Fluid must meet DOT requirements
- ATF must meet OEM specifications

CDFA's Participation in Consensus Organizations

- ASTM International Committees
 - Spark-Ignition Fuels – Gasoline, Ethanol Flex Fuel, Propane,
 - Compression Ignition Fuels - Diesel, Biodiesel Blends, DME
 - Gaseous Fuels- Hydrogen, CNG, LNG
 - Motor Oils and Gear Oils
- SAE International Committees
 - Hydrogen
 - Lubricants

Authority to Sample

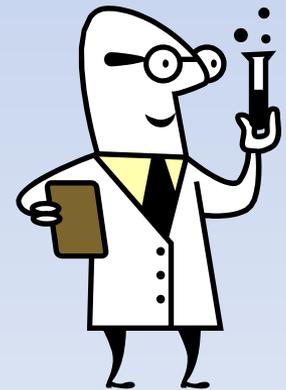
- **BPC § 13591.** The department, its inspectors, and each sealer, are hereby authorized and empowered to inspect the petroleum products referred to in this chapter and to enter, for the purpose of such inspection, any place where petroleum products are kept or stored for sale. All such officers shall enforce the provisions of this chapter.
- **BPC § 13592.** The department, each sealer, and any person now or hereafter authorized or empowered by law to inspect the petroleum products referred to in this chapter, may take such sample or samples as may be necessary of any petroleum or petroleum product kept or stored for the purpose of sale.
- **BPC § 13593.** It is unlawful for any person, or any member, officer, agent, or employee of a firm, association, or corporation, to refuse to permit any person authorized by this article to take such sample or samples permitted by this chapter, or to prevent or to attempt to prevent the taking of such sample or samples.

DMS's Laws and Regulations

**Business and Professions Code,
Division 5, Chapters 14 and 15**

**California Code of Regulation,
Title 4, Division 9, Chapters 6, 7, & 8**

Questions and Answers



Contact Information

Allan Morrison, Senior Environment Scientist

Fuels and Lubricants Laboratory

Division of Measurement Standards

6790 Florin Perkins Rd, Suite 100

Sacramento, CA 95828

916-229-3046

Allan.Morrison@cdfa.ca.gov

Web: www.cdfa.ca.gov/dms