

**Advisory Committee Helps Plan for Cleaner Gasoline**

On June 1, 1996, all gasoline sold in California must meet the requirements of the California Phase 2 reformulated gasoline (California RFG) regulation. To plan for the introduction of less-polluting gasoline, Governor Wilson asked the California Air Resources Board (ARB) to form the Phase 2 Reformulated Gasoline Advisory Committee -- a group of more than 60 representatives from industry, public interest groups, and government agencies. For the past four months, the committee has worked with the ARB to help ensure a smooth transition to California RFG.

The committee, chaired by the ARB Chairwoman Jacqueline Schafer, wrestles with key implementation issues in its quarterly meetings. These include California RFG's compatibility with existing vehicles and equipment, adequate supply, and public acceptance. Subcommittees are already at work on these issues.

The Performance Subcommittee has helped the ARB design fuel testing plans to evaluate the performance of California RFG in motor vehicles, fuel storage systems, and other equipment. The Subcommittee includes technical experts such as Dr. Gerald Barnes, Manager of Alternative Fuels and Heavy-Duty Activities for General Motors Corporation, and Jack Segal, Manager of Fuels Development for ARCO Products Company, who both made presentations at the first Advisory

Committee meeting in July.

The Transition Subcommittee works with the California Energy Commission and the ARB to develop a technically-sound approach to estimating gasoline supply and demand. The Public Education Subcommittee advises the ARB on how to best inform the general public, industry, and other government agencies about California RFG. The three subcommittees will work closely with the ARB through the implementation of the regulation in June 1996.

At the opening meeting on July 19th, Chairwoman Schafer highlighted the primary benefit of California RFG -- less air pollution. "Over the next 5 years, this one measure will provide California with its greatest source of emission reductions." The next meeting of the Advisory Committee will be in Los Angeles on February 1.

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**PERFORMANCE**

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**Phase 2 RFG Testing Scheduled to Start in February 1995**

With cleaner-burning gasoline due in June 1996, the California Air Resources Board (ARB) plans to thoroughly evaluate the performance and compatibility of California RFG in motor vehicles, fuel storage systems, and other gasoline-powered equipment. A \$1.8 million testing program is scheduled for February through August 1995.

Test plans, drawn up in cooperation with gasoline refiners, auto makers, and other related industries, are nearly complete. Over 1000 vehicles will be tested

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## TRANSITION

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### Energy Commission Forecasts Gasoline Supply and Demand

Can producers meet the demand for California Phase 2 reformulated gasoline in 1996? The answer is yes -- according to the preliminary findings of a joint California Energy Commission (CEC) and Air Resources Board (ARB) study.

As the mandate for the cleaner gasoline increases the complexity of bringing fuel to the market-place, it also raises concerns about meeting consumer demand. To help ensure adequate supply, the CEC and the ARB are working with the oil companies and the Phase 2 RFG Transition Subcommittee to estimate gasoline supply and demand through the year 2000.

<b>California RFG supplies should meet the demand through 2000.</b>	At the October meetings of the Transition Subcommittee and the Advisory Committee, CEC staff members Gordon Schremp and Gerry Bemis presented their preliminary findings, indicating that gasoline supply should meet the highest projected demand.
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## Antitrust and Confidentiality Issues

Oil refiners and others have expressed serious concern over the potential for antitrust violations for those who participate in the Transition Subcommittee. According to Susan Brown, discussion leader for the subcommittee, the CEC and the ARB are well aware of the problems and are arranging the structure and operation of the subcommittee to avoid sensitive activities such as the open discussion and exchange of information regarding company specific production capacity, production costs, pricing, and product distribution. No company specific data will be discussed in the subcommittee. The ARB and the CEC will handle confidential materials as required by California law.

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## PUBLIC EDUCATION

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### Subcommittee Stresses Need for Broad Outreach Campaign

Who needs to know about California Phase 2 reformulated gasoline? According to members of the California Phase 2 Public Education Subcommittee, "Almost everyone."

The subcommittee, with over twenty members, is charged with helping the Air Resources Board (ARB) get the word out on cleaner gasoline. At the first committee meeting, one of the members summed up the importance of a California RFG outreach program stating that "it needs to be a downtown effort."

As recommended by the subcommittee, the ARB will be requesting proposals from public relations agencies to help plan its California RFG public education campaign. The ARB is also looking at ways to pool resources to finance the campaign. A number of organizations and companies represented on the committee are interested in participating in a joint campaign.

In the study, the CEC and the ARB used information provided by gasoline producers, along with growth rates developed by the California Department of Transportation and the CEC, to forecast supply and demand of California RFG for March 1996. Supply is estimated to be between 860,000 to 1,100,000 barrels per day, with demand estimated at 840,000 to 920,000 barrels.

The CEC will continue to update their estimates as they receive more information. In October, the CEC sent a more detailed survey form to all California gasoline producers to gather information for a more complete analysis. The CEC asked oil companies to respond by December 9 so that the new information can be presented at the January Transition Subcommittee meeting.

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## CALIFORNIA RFG INFORMATION

For additional copies of *California RFG Forum*, *California RFG Fact Sheets*, or questions about RFG, call (916) 322-6020 or fax (916) 445-5023.

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## VIEWPOINT

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### **ARB Board Member Looks Forward to Driving with RFG**

by Jack Lagarias-As a member of the Air Resources Board since 1986, I have been involved with a number of air quality regulations. The California Phase 2 re-formulated gasoline (California RFG) regulation stands out, however, because it will immediately help improve air quality by reducing emissions from all cars on the road. In 1991, when the Board adopted the California RFG regulation, a federal RFG regulation for the nation's smoggiest regions was already set to start in 1995. We were aware that different federal and California regulations could cause confusion. However, the state needed greater emission reductions to help meet clean air standards.

The ARB will publish this quarterly newsletter along with a series of fact sheets on California RFG. Because the purpose of *California RFG Forum* is to serve those who need information on RFG, we invite your comments and suggestions for future articles.

For the implementation of the California RFG, we have formed an advisory committee to identify, address, and prevent possible start-up difficulties. An extensive testing program is underway with experts from the oil and automotive industries working closely with ARB staff to help ensure that the new gasoline performs well and is compatible with existing vehicles and equipment. In addition, other subcommittees are checking on gasoline supply and determining how to best notify the public and all interested parties about RFG.

In adopting this measure, the Board has acted prudently: California RFG will be good for California because it is technically sound, cost effective, provides industry with flexibility in formulation, and will reduce harmful air pollutants.

*Jack Lagarias is Vice-Chair of the California Phase 2 RFG Advisory Committee. He is a physicist and registered professional engineer.*

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California RFG, required statewide in 1996, will reduce volatile organic compounds, nitrogen oxides, sulfur, and particulate emissions more than federal RFG. With these reductions, California and local air districts will be better able to comply with federal and state air quality standards for ozone. Car manufacturers can more readily meet the low emission vehicle and ultra-low emission vehicle requirements with a cleaner, less corrosive fuel. California RFG will be more cost-effective compared to other control measures for industry. And California refiners will create over 20,000 construction jobs and hundreds of new, permanent jobs in producing California RFG.

From our experiences with the introduction of reformulated diesel fuel last fall, we know that regulating new fuel specifications requires careful planning. Even a technically sound regulation can bring unexpected difficulties. After a rough start, it is now apparent that reformulated diesel is fine. Even the California Trucking Association -- the regulation's most vocal critic -- now recommends that California diesel fuel specifications be adopted as a national standard.

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**CALIFORNIA GASOLINE FACTS\***

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Gasoline-fueled vehicles (1994)---24,000,000  
 Gasoline purchased (1993) -----13.5 billion gallons  
 Range of prices for regular unleaded gasoline (1993)

Performance *Cont. from page 1*

with what the subcommittee believes to be a typical blend of California RFG. Control vehicles for the study will run on conventional gasoline. Testing will include agricultural equipment, lawn and garden, off-road recreational, and construction equipment. The ARB will announce the results of the test program as the data are analyzed.

In addition, other test programs will supplement the ARB's findings. Manufacturers of utility engines, such as Tecumseh and Briggs and Stratton, have begun field testing their products. General Motors will evaluate the effect of California RFG on materials found in engines and fuel systems. GM's tests will include a wider range of fuels including those with ETBE (an oxygenate) and very low aromatic hydrocarbon content.

Based on previous test results using new fuels similar to California RFG, experts from both industry and government don't anticipate any problems. But with over 24 million gasoline-powered vehicles in the state, the testing will help prevent any surprises when the new fuel goes on sale in June 1996.

<b>Fuel Specifications** for ARB's California RFG Testing Program</b>	
Oxygenate-----	MTBE
RVP, psi	
Summer-----	6.5-6.9
Winter-----	11.5-12

S. Calif.-----\$1.16-1.30 per gallon

N. Calif.-----\$1.17-1.31 per gallon

\*Source: Calif. Energy Commission and Air Resources Board

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**REFORMULATED GASOLINE MILESTONES**

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California Phase 1 RFG implemented-----January 1992

California Wintertime Oxygenated -----November 1992  
Program

Federal Phase 1 RFG (S. Calif. only)-----January 1995

California Phase 2 RFG Test Program-----Feb.-Aug. 1995

California Phase 2 RFG implementation

Refineries-----March 1, 1996

Terminals-----April 15, 1996

Service Stations-----June 1, 1996

Aromatic, v.%-----	18-20
Olefins, v.%-----	3.0-5.0
Sulfur, ppm-----	15-25
Benzene, v.%-----	0.5-1.0
T50, oF-----	190-210
T90, oF-----	280-300
Oxygen, wt.%-----	1.8-2.2

\*\* Ranges provide blending tolerance around target values.

*The California RFG testing program will evaluate the effects of fuels blended to these specification on over 1000 vehicles.*

**Next California RFG Advisory Committee Meeting: February 1, 1995 (Sacramento)**