Phase 2 Reformulated Gasoline

Performance Subcommittee

Final Meeting Summary
May 16, 1995

California Air Resources Board

I. Introduction

The performance subcommittee discussed the following key issues regarding the Phase 2 Reformulated Gasoline performance and compatibility testing program:

- Progress of On-Road Test Program
- Progress of the Chevron Test Program
- Progress of Off-Road Vehicle and Equipment Test Program
- Volumetric Fuel Economy
- Other Issues

The minutes from the previous meeting, March 14, 1995, were approved with no changes. Copies of presentations given at this meeting are enclosed with this summary.

II. Progress of On-Road Test Program

We are in the third month of the test program and no problems have been reported to date; however, the test program has changed slightly. The test fleet has decreased from nearly 1,000 vehicles to just under 800, and the control fleet has decreased from approximately 600 vehicles to about 550. A table listing the fleet composition by vehicle type an age is included in the attachments. Also, the delivery of summertime test fuel began on May 1, 1995 rather than in March. The program shoul not be affected due to the long winter. Fuel sampling is continuing and winter fuel properties will be available soon. Over 150 samples have been collected. The fuel sample properties are expected to be provided at the next subcommittee meeting.

Contact: Nelson Chan (916) 327-1510

III. Progress of Chevron Test Program

Chevron's program has seen 4 incidents of elastomer failure in their Phase 2 RFG test fleet compared to none in their control (conventional gasoline) fleet after approximately 4months of testing. The parts are being studied to determine the cause of the incidents. Chevron's test program ends at the end of the month, and they expect to provide the results of their program at the next meeting.

Contact: Randy Barber (510) 242-2448

IV. Off-Road Vehicle and Equipment Test Program

We have anticipated that UC Davis would test lawn and garden equipment and agricultural vehicles, and Cal Poly, San Luis Obispo would test tractors for the test program, but both have dropped out of the test program due to administrative delays. Fortunately, CSU Fresno is available as a site to test the same types of equipment, and these two programs have been shifted to CSU Fresno. Off-road test programs underway include the Portable Power Equipment Manufacturers Association (PPEMA), Lake Tahoe Winter Sports, and CSU Fresno. Harley Davidson, in Alabama, began testing last week. Their testing includes emissions, fuel economy, and durability studies. Two other programs soon to begin include Tahoe Paradise Boat Rental and Mercury Marine. To date, no problems have been reported for the off-road fleet.

Contact: Kathleen Nolan (818) 350-6519

V. Volumetric Fuel Economy

Additional changes were made to the ARB fuel economy paper to include data from Auto-Oil dynamometer testing and from the Battelle test program. The paper is to be provided to the Public Education Subcommittee for use in future fact sheets.

Contact: Jim Guthrie (916) 327-1508

VI. Other Issues

The ARB is sponsoring a research program to collect ambient air quality data for hydrocarbons in an attempt to allow the direct quantification of the benefits of the Phase 2 RFG regulations. The results are expected to be available in 1997.

In 1992 and 1993 some fuel leaks occurred in Nissan Maximas with over 100,000 miles. Nissan reported that the leaks were associated with hig MTBE concentrations up to 19%. In an attempt to find the cause, Nissan

reproduced the failure symptoms with a 15% MTBE fuel in a controlled test that duplicates 100,000 miles of use. Note that Phase 2 RFG will be oxygenated with about 11% MTBE when MTBE is the oxygenate used.

A draft of the Phase 2 RFG test program report outline is expected to b completed and made available for review and comment by the next meeting

Attachments

CBG Program Advisory and Subcommittee Activities