

Updated Informative Digest

REGULATORY AMENDMENTS TO THE TEST METHODS DESIGNATED FOR DETERMINING OLEFIN CONTENT AND DISTILLATION TEMPERATURES OF GASOLINE

Sections Affected: Amendments to section 2263(b), title 13, California Code of Regulations (CCR).

The California reformulated gasoline (CaRFG) regulations establish specifications for eight chemical and physical properties of gasoline. The Phase 2 CaRFG standards became applicable in March 1996. California gasoline will have to meet the recently adopted Phase 3 CaRFG standards starting December 31, 2002. Both the Phase 2 and Phase 3 CaRFG specifications include limits on olefin content and on T50 and T90 – the temperatures at which 50 percent and 90 percent of the gasoline is distilled. For each property specification, the regulations identify the method to be used in determining compliance. In most cases the methods are based on test methods approved by the American Society of Testing and Materials (ASTM). The last two digits of an ASTM designation represent the year of adoption or last revision.

In this rulemaking the Air Resources Board (ARB or Board) has amended the designations of the test methods for measuring olefin content from ASTM Method D 1319-95a to ASTM D 6550-00 with three modifications: (1) identifying repeatability and reproducibility as $0.13X^{0.5}$ and $0.32X^{0.5}$ respectively when x = mass percent olefins, (2) providing that volume percent olefins equals $0.857 \times$ mass percent olefins, and (3) expanding the scope statement from 0.3 to 25 mass percent olefins. This change will become applicable January 1, 2002.

The Board has also amended the method for measuring the T50 and T90 of gasoline from ASTM D 86-90 to ASTM D 86-99a ϵ 1.

These amendments follow several years of cooperative effort evaluating Phase 2 CaRFG test methods with members of the regulated community, in particular the Western States Petroleum Association (WSPA) Working Group on Test Methods and ASTM Subcommittee D2. These methods will also be applicable to the Phase 3 CaRFG standards, and the staff will continue to work with WSPA to monitor the effectiveness of these methods as gasoline subject to the Phase 3 CaRFG standards becomes available.

Comparable Federal Regulations. The U.S. Environmental Protection Agency (U.S. EPA) administers federal RFG regulations requiring that gasoline sold in various areas of the country with poor air quality meet standards for federal reformulated gasoline. Gasoline sold in most of Southern California and in the greater Sacramento area is subject to the federal RFG standards as well as having to meet the CaRFG

standards. The ARB has worked with U.S. EPA and gasoline producers to avoid unnecessary duplication and conflicts between the federal and state enforcement agencies. As a result of this cooperative effort, the federal regulations allow producers and importers of California gasoline to use test methods specified in the ARB's regulations in lieu of the otherwise applicable federal methods. (40 CFR section 80.81(h).)