

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CALIFORNIA REFORMULATED GASOLINE REGULATIONS, INCLUDING AMENDMENTS REGARDING THE DOWNSTREAM BLENDING OF OXYGENATES

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider amendments to the California reformulated gasoline (CaRFG) reformulated gasoline regulations, including amendments regarding the downstream blending of oxygenates and other technical matters.

Date: December 14, 1995

Time: 9:30 a.m.

Place: Board Hearing Room, Lower Level
2020 L Street
Sacramento, California 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:30 a.m. on December 14, 1995 and may continue at 8:30 a.m. on December 15, 1995. This item may not be considered until December 15, 1995. Please consult the agenda for the meeting, which will be available at least 10 days before December 14, 1995, to determine the day on which this item will be considered.

INFORMATIVE DIGEST OF PROPOSED ACTION/PLAIN ENGLISH POLICY STATEMENT OVERVIEW

Sections Affected: Proposed adoption of sections 2263.7 and 2266.5, and amendments to sections 2260, 2262.5, 2264, 2265, and 2272 of Title 13, California Code of Regulations (CCR).

Background. The CaRFG regulations were adopted by the Board following a hearing in November 1991. These regulations, which will become applicable in the spring of 1996, establish a comprehensive set of specifications for gasoline designed to achieve the maximum reductions in emissions of criteria pollutants and toxic air contaminants from gasoline-powered motor vehicles. The specifications cover sulfur, benzene, olefin, oxygen, and aromatic hydrocarbon contents, 50 percent (T50) and 90 percent (T90) distillation temperatures, and Reid vapor pressure (RVP).

The CaRFG standards include "cap" limits that apply to finished gasoline throughout the California gasoline distribution system. The standards also include generally more stringent limits that apply to gasoline when it is first supplied from a production facility (typically a refinery) or an import facility. The standards for gasoline being supplied from production or import facilities will apply starting March 1, 1996. The cap limits will apply starting April 15 to

sales and supplies of gasoline throughout the gasoline distribution system except for gasoline being supplied from a bulk storage facility or being dispensed into a motor vehicle. Starting June 1, 1996 the cap standards will generally apply to all gasoline being sold or supplied in California.

Except in the case of RVP and oxygen content, the regulations provide two compliance options for meeting the limits applicable to gasoline being supplied from a production or import facility. One option is to elect to have the gasoline subject to a "flat limit," which must be met by every gallon of gasoline leaving the production or import facility. The other option is to elect an "averaging limit." The averaging limits established in the regulations for each of the six properties are more numerically stringent than the comparable flat limits. Under the averaging option, the producer may assign differing "designated alternative limits" (DALs) to different batches of gasoline being supplied from the production or import facility. Each batch of gasoline must meet the DAL for the batch. A producer or importer supplying a batch of gasoline with a DAL less stringent than the averaging limit must within 90 days before or after supply from the same facility sufficient quantities of gasoline subject to more stringent DALs to fully offset the exceedances of the averaging limit.

The CaRFG regulations also contain a mechanism under which a producer or importer may use the "California predictive model" to identify alternative flat and averaging limits applicable when gasoline is supplied from the production or import facility. The predictive model consists of a set of three mathematical equations which estimate the changes in exhaust emissions of hydrocarbons, oxides of nitrogen (NOx), and four toxic air contaminants that result from different gasoline formulations. The equations are based on the results of a wide variety of test programs evaluating the effect of fuel properties on emissions. Producers and importers may use the predictive model to identify any combination of alternative flat and averaging limits as long as the emissions from the gasoline with the combination of limits are no greater than the emissions of gasoline meeting the comparable flat and average limits identified in the regulation.

The standards for oxygen content are administered differently from the rest of the standards. Oxygen is added to gasoline by blending in an "oxygenate," the most common of which are currently methyl tertiary butyl ether (MTBE) and ethanol. In most cases, CaRFG must have an oxygen content between 1.8 wt. % and 2.2 wt. %. Producers and importers may use the predictive model mechanism--or an analogous mechanism in which alternative gasoline formulations are certified based on a vehicle test program--to establish a maximum oxygen content limit as high as 2.7 wt. %. Since adding oxygen to gasoline reduces carbon monoxide (CO) emissions and ambient concentrations of CO are highest during the wintertime, the CaRFG regulations do not allow alternative formulations with oxygen contents below 1.8 wt. % during specified wintertime oxygenate control periods. In the rest of the year, gasoline formulations meeting the predictive model or vehicle testing criteria are allowed to have less or no oxygen.

The CaRFG regulations allow gasoline with less than the required minimum oxygen content to be shipped from a production or import facility, as long as the producer or importer takes appropriate measures to assure that the minimum levels of oxygen will be added before the

gasoline is shipped from the final distribution facility. This element was included because it is generally not feasible to oxygenate gasoline with ethanol at "upstream" points in the gasoline distribution system. Under the CaRFG regulations, gasoline permitted to be supplied from the production or import facility without oxygen must at that point meet all of the other CaRFG specifications.

Finally, the CaRFG regulations provide small refiners a two-year extension of the compliance date for four of the eight CaRFG specifications (sulfur content, olefin content, T50 and T90), subject to a number of conditions. One of the conditions is that the extension can only apply to gasoline supplied from the small refiner's refinery in a calendar quarter in which two-thirds or more of the gasoline supplied from the refinery was refined at the small refinery from crude oil. The regulations also impose an annual limit on the amount of small refiner gasoline that qualifies for the partial two-year extension.

Proposed Amendments Relating to Downstream Oxygenate Blending. The staff is proposing a set of amendments which would make it more practical to produce CaRFG with an oxygenate that is blended into the rest of the gasoline at a point downstream from the production or import facility. The proposed amendments generally follow the approach in the federal reformulated gasoline regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA). The federal regulations require that when oxygenates are added downstream of the refinery or import facility, they are to be added only to a specially formulated reformulated gasoline blendstock intended for such downstream oxygenate blending. U.S. EPA calls the specially formulated product "Reformulated gasoline Blendstock for Oxygen Blending," or "RBOB". The amendments proposed by staff refer to an analogous product called "California reformulated gasoline blendstock for oxygen blending," or "CARBOB."

For entities wishing to add oxygenate downstream from the production or import facility, the primary benefit of the CARBOB approach is that it would allow them to take advantage of the contribution oxygenates can make to meeting some of the CaRFG specifications for properties other than oxygen content. To the extent that an oxygenate has no or very low levels of sulfur, benzene, aromatic hydrocarbon and olefin, adding the oxygenate will reduce the concentration of these substances in the gasoline blend. At the same time, the proposed CARBOB amendments have been designed to help assure that the necessary amounts of oxygenate will in fact be added, that addition of the oxygenate will not cause the resulting blend to fail to meet any of the applicable CaRFG limits, and that ARB enforcement personnel will be able to monitor compliance effectively.

Under the proposed amendments, a producer or importer could designate final blends at the production or import facility as "CARBOB." The designation would have to identify each oxygenate type or types and amount or range of amounts that is to be added to the CARBOB downstream from the facility. These blends would generally be subject to all of the standards and compliance options applicable to final blends of reformulated gasoline being supplied from the production or import facility. However, in determining the properties of the CARBOB for

purposes of compliance with the CaRFG standards, and in calculating the volume of the final blend for averaging purposes, the properties and volume will be analyzed after adding the minimum amount of the oxygenate designated by the producer or importer. The producer or importer would be required to sample and analyze the CARBOB to determine its properties in accordance with this methodology. Additionally, the producer or importer would be prohibited from supplying the CARBOB from the production facility or import facility where the sulfur, benzene, olefin or aromatic hydrocarbon content of the CARBOB, when multiplied by (1 - the designated minimum volume the oxygenate will represent after it is added to the CARBOB), results in a sulfur, benzene, olefin or aromatic hydrocarbon content value exceeding the applicable limit for that property.

The amendments would require persons transferring CARBOB to provide a document identifying the oxygenate type or types and amount or range of amounts that must be added before the CARBOB is supplied from the final distribution facility. They would require that any person blending oxygenate into CARBOB must apply for certification by the ARB. CARBOB could only be transferred to a certified oxygenate blender who will add the appropriate oxygenate, or to an intermediate transferee who will take all reasonably necessary steps to assure that the CARBOB will be appropriately oxygenated. Persons would be prohibited from blending CARBOB with any other CARBOB, gasoline, or blendstock except: (i) the appropriate type and amount of oxygenate, or (ii) other CARBOB for which the same type and amount or range of amounts of oxygenate has been designated.

Producers and importers of CARBOB would have to conduct a quality audit program similar to the program identified in the U.S.EPA regulations to make sure that the correct type and amount of oxygenate is being added downstream. In addition, an oxygenate blender would have to sample and test the gasoline resulting from the oxygenate blending, in a manner similar to that required in the federal program.

Other Proposed Amendments. The staff is also proposing the following additional amendments, designed to fine-tune the CaRFG program and to provide greater flexibility. Most of these proposed amendments result from comments made by the refining industry.

- Revise the averaging provisions to allow a refiner supplying a high-DAL batch of gasoline between March 1 and May 30, 1996 to offset it with low-DAL batches supplied through August 28, 1996. This will assure that refiners will have a 180-day offset period for batches shipped during the start-up of the program.
- Allow a refiner supplying gasoline as an alternative formulation under the predictive model provisions to change a flat limit for a property to the equivalent averaging limit, regardless of the state of offsets for any of the formulation's other averaging limits. This is already allowed for refiners supplying gasoline subject to a combination of the regular flat and averaging limits identified in the regulations.

- Amend the definition of "production facility," under which the Executive Officer may currently stipulate, at the request of a refiner, that the refiner's production facility includes a physically separate bulk storage facility that is owned and operated by the producer and is not used to store or distribute gasoline that is not supplied from the production facility. The amendment would make the provision apply to a separate bulk storage facility that is leased instead of owned by the producer, and is operated at the direction of the producer instead of directly by the producer's own employees.
- Amend the provision limiting the two-year extension for small refiners to gasoline supplied from the small refiner's refinery in a calendar quarter in which two-thirds or more of the gasoline supplied from the refinery was refined at the refinery from crude oil, so that: (i) March 1996 is counted with the second quarter of 1996; (ii) the two-thirds determination does not count the volume of oxygenates in the small refiner's gasoline; and (iii) the two-thirds determination does not count gasoline supplied from the small refiner's refinery but not produced by the small refiner.
- Allow a small refiner to enter into a protocol with the Executive Officer under which batches of gasoline reported by the small refiner as not exempt from any of the CaRFG specifications will not count against the annual volume of the small refiner's gasoline that is exempt from the four CaRFG specifications until March 1998.
- Change the designated wintertime period in which CaRFG sold or supplied in San Luis Obispo County must have a minimum oxygen content of 1.8 wt. % so that it is consistent with the period applicable under the current wintertime oxygenates regulation.
- Make a technical amendment to assure that producers and importers who have to meet the CaRFG RVP standard for gasoline supplied from their production and import facilities in March 1996 will also have to meet that standard for gasoline supplied from their production and import facilities during April 1996 before the cap limits become applicable on April 15.
- Expressly prohibit persons from combining California gasoline that has been supplied from a production or import facility with any nonoxygenate blendstock, other than a deposit control additive, unless the person can affirmatively demonstrate that (i) the blendstock meets all of the California gasoline standards without regard to the properties of the gasoline to which the blendstock is added, and (ii) the person meets with regard to the blendstock all requirements applicable to producers of California gasoline.

Comparable Federal Regulations. The 1990 amendments to the federal Clean Air Act (FCAA) require U.S. EPA to adopt regulations regarding reformulated gasoline. (FCAA §211(k).) U.S. EPA has adopted these regulations as 40 C.F.R. §§80.40 to 80.82. In California, they have

applied in Los Angeles, Orange, Ventura and San Diego counties; and in parts of Riverside and San Bernardino counties; since January 1, 1995.

The FCAA provides that the federal regulations must require no NOx increase, a minimum 2.0 percent by weight oxygen content (with certain exceptions), a maximum 1.0 percent by volume benzene content, and limits on heavy metals. The federal regulations must also specify performance standards for hydrocarbons in the high ozone period and toxic compounds year-round in two phases--the first starting in 1995 and the second starting in 2000. The U.S. EPA regulations identify "per-gallon" and optional averaged standards that may be met under a "simple model" through 1997. The regulations also identify a "complex model" which is optional until January 1, 1998, and is mandatory thereafter.

While the federal substantive requirements will apply in the covered areas of southern California, the ARB has worked with U.S. EPA and gasoline producers to avoid unnecessary duplication of the enforcement requirements. In 40 C.F.R. §80.81, U.S. EPA has exempted California producers from many of the federal enforcement requirements from March 1, 1996 to January 1, 2000, as long as certain criteria are met. As noted above, the proposed "CARBOB" provisions are generally patterned after the federal "RBOB" provisions, many of which are contained in 40 C.F.R. §80.69. Producers of CaRFG and CARBOB will be exempt from the 40 C.F.R. §80.69 requirements. 40 CFR §80.78(a)(5) prohibits persons from combining federal RFG with any nonoxygenated blendstock unless the person meets all requirements applicable to refiners and the blendstock being added meets all federal RFG standards without regard to the RFG to which the blendstock is added. This requirement is not eliminated by the California exemption.

AVAILABILITY OF DOCUMENTS AND CONTACT PERSON

The Board staff has prepared a Staff Report which includes the initial statement of reasons for the proposed action and a summary of the environmental impacts of the proposal, if any. Copies of the Staff Report and the full text of the proposed regulatory language may be obtained from the Public Information Office, Air Resources Board, 2020 L Street, Sacramento, California 95814, (916) 322-2990. The Board staff has compiled a record which includes all information upon which the proposal is based. This material is available for inspection upon request to the contact person identified immediately below. The ARB has determined that it is not feasible to draft the regulation in plain English due to the technical nature of the regulation; however, the Staff Report presents a summary of the regulation in plain English and is available as set forth above.

The ARB has determined that it is not feasible to draft the amendments in plain English due to their technical nature; however, a plain English summary of the amendments is available from the contact person named below.

Further inquiries regarding this matter should be directed to John Courtis, Manager of the Fuels Section in the Stationary Source Division, at (916) 322-6019.

COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred in reasonable compliance with the proposed regulatory action are presented below.

The Executive Officer has determined that the proposed regulatory action will not create costs or savings, as defined in Government Code section 11346.5(a)(6), to any state agency or in federal funding to the state, costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to Part 7 (commencing with section 17501, Division 4, Title 2 of the Government Code, or other nondiscretionary savings to local agencies.

In preparing the regulatory proposal, the staff has considered the potential economic impacts on California business enterprises and individuals. Overall, we expect the amendments to have beneficial economic impacts as compared to the existing CaRFG requirements. Most of the amendments will provide some degree of increased flexibility in meeting the CaRFG standards. Although the proposed amendments pertaining to downstream oxygenate blending impose various new testing, quality audit and recordkeeping requirements which will result in various compliance costs, the amendments will also allow producers to take advantage of the contribution that adding oxygenates can provide in meeting the CaRFG specifications for some properties other than oxygen content. Overall, the amendments will improve the economics of adding oxygenates in California downstream from the production facility. Thus the proposed amendments are not expected to have a significant adverse economic impact on large or small businesses, including the ability of California businesses to compete with businesses in other states, or on directly affected private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action should have minor or positive impacts on the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within California, or the expansion of businesses currently doing business within California. An assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report.

The Executive Officer has also determined, pursuant to Government Code section 11343.2, that the proposed regulatory action will affect small business.

Before taking action on the proposed regulatory action, the Board must determine that no alternative considered by the agency would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

SUBMITTAL OF COMMENTS

The public may present comments relating to this matter orally or in writing. To be considered by the Board, written submissions must be addressed to and received by the Board Secretary, Air Resources Board, Post Office Box 2815, Sacramento, California 95812, no later than 12:00 noon, December 13, 1995, or received by the Board Secretary at the hearing.

The Board requests but does not require that 20 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

STATUTORY AUTHORITY AND HEARING PROCEDURES

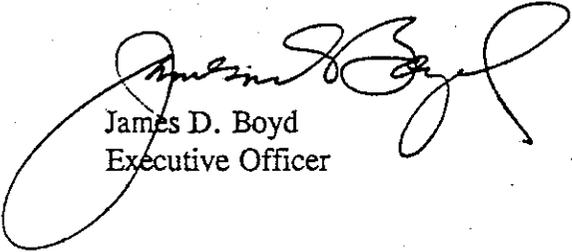
This regulatory action is proposed under that authority granted in sections 39600, 39601, 43013, 43018, and 43101, Health and Safety Code, and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

This regulatory action is proposed to implement, interpret, and make specific sections 39000, 39001, 39002, 39003, 39010, 39500, 39515, 39516, 41511, 43000, 43016, 43018, 43021, and 43101, Health and Safety Code, and Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Title 2, Division 3, Part 1, Chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action; in such event the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted. The public may request a copy of the modified regulatory text from the Board's Public Information Office, 2020 L Street, Sacramento, California 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD



James D. Boyd
Executive Officer

Date: October 17, 1995