Attachment I

State of California
AIR RESOURCES BOARD

Resolution 02-34

December 12, 2002

Agenda Item No.: 02-9-3

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the Board or ARB) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, sections 43018(a) and (b) of the Health and Safety Code direct the Board to endeavor to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state ambient air quality standards at the earliest practicable date, and to take whatever actions are necessary, cost-effective, and technologically feasible to achieve, by December 31, 2000, specified reductions in the emissions of reactive organic gases, oxides of nitrogen (NOx), particulates, carbon monoxide (CO), and toxic air contaminants from vehicular sources;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying out section 43018, the Board shall adopt standards and regulations which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including but not limited to specification of vehicular fuel composition;

WHEREAS, Health and Safety Code section 43013 authorizes the Board to adopt and implement motor vehicle fuel specifications for the control of air contaminants and sources of air pollution which the Board has found necessary, cost-effective, and technologically feasible to carry out the purposes of Division 26 of the Health and Safety Code;

WHEREAS, the ARB administers the Phase 2 California reformulated gasoline (CaRFG2) regulations, which became applicable March 1, 1996 and currently include the following elements:

> Standards for eight gasoline properties – summertime Reid Vapor Pressure (RVP), T50 (50 percent distillation temperature), T90 (90 percent distillation temperature), and aromatic hydrocarbon, benzene, sulfur, olefin, and oxygen contents;

Establishment of an absolute "cap" limit for each specification, applicable throughout the gasoline distribution system;

Establishment of additional, more stringent "refinery" limits applicable to gasoline when it is initially supplied from the production or import facility for all specifications but RVP, and provisions authorizing compliance through a form of averaging T50, T90, and sulfur, aromatic hydrocarbon, benzene and olefin contents;

An alternative compliance mechanism under which a producer or importer may use the CaRFG2 Predictive Model to identify alternative flat and averaging refinery limits, up to the cap limits, that will result in essentially no increase in emissions of exhaust hydrocarbons, NOx, and potency weighted toxics (benzene, 1,3-butadiene, acetaldehyde and formaldehyde); the CaRFG2 Predictive Model consists of mathematical equations, based on 18 vehicle emissions test programs, that predict the changes in exhaust hydrocarbons, NOx, and potency weighted toxics resulting from different gasoline formulations;

In the case of oxygen content, a requirement that CaRFG2 sold throughout the distribution system in Los Angeles, Orange, Riverside, San Bernardino, Ventura and Imperial Counties during specified winter months must contain at least 1.8 percent by weight (wt.%) oxygen, in order to reduce emissions of CO during the season of highest CO concentrations in areas where the CO ambient air quality standards have not yet been attained; during the rest of the year and in the remainder of the state, CaRFG2 being supplied from a production or import facility is subject to an oxygen content refinery limit of 1.8 to 2.2 wt.%, but the producer or importer may use the CaRFG2 Predictive Model to reduce oxygen content to as low as 0.0 wt.%, or raise it as high as 3.5 wt.%; and

A mechanism allowing a refiner to ship a non-oxygenated gasoline blend – called "California reformulated gasoline blendstock for oxygenate blending," or "CARBOB" – from the refinery without complying with the CaRFG standards if it is specially formulated to be combined with oxygenate "downstream" from the refinery and the resulting blend will meet all of the CaRFG standards; this allows entities adding oxygenate downstream from the refinery to take advantage of the contribution it can make to complying with the CaRFG standards, particularly by diluting the concentration of compounds like benzene;

WHEREAS, virtually all current California gasoline is subject to alternative refinery flat or averaging limits designated by the producer or importer using the CaRFG2 Predictive Model;

WHEREAS, pursuant to federal Clean Air Act section 211(k), the U.S. Environmental Protection Agency (U.S. EPA) administers federal reformulated gasoline (RFG) regulations that apply – along with the CaRFG2 regulations – to the 80 percent of California gasoline that is sold in the greater Los Angeles, San Diego and Sacramento

areas and the San Joaquin valley; these regulations require a year-round oxygen content of 2.0 wt.% or 2.1 wt.% on average;

WHEREAS, in order to meet the federal and California requirements for the minimum oxygen content of gasoline, refiners have primarily used the oxygenate methyl tertiary butyl ether (MTBE); in 1998, over 90 percent of California gasoline was blended with MTBE;

WHEREAS, pursuant to "The MTBE Public Health and Environmental Protection Act of 1997" (Stats. 1997, ch. 816; SB 521, Mountjoy), the University of California prepared a report on the "Health and Environmental Assessment of MTBE" and presented it to the Governor on November 12, 1998;

WHEREAS, in response to this report and subsequent written comments and hearing testimony, on March 25, 1999, Governor Gray Davis issued Executive Order D-5-99, in which he found that, "on balance, there is significant risk to the environment from using MTBE in gasoline in California," primarily because of the environmental threat of MTBE contamination of groundwater and drinking water resulting from leaking underground fuel storage tanks;

WHEREAS, Executive Order D-5-99 included a direction to the California Energy Commission (CEC), in consultation with the ARB, to develop a timetable for the removal of MTBE from California gasoline not later than December 31, 2002, and included a direction to the ARB to adopt California Phase 3 Reformulated Gasoline (CaRFG3) regulations that will provide additional flexibility in lowering or removing oxygen and maintain current emissions and air quality benefits and allow compliance with the State Implementation Plan (SIP);

WHEREAS, Senate Bill 989 (Sher), signed by the Governor on October 10, 1999, (Stats. 1999, ch. 812) enacts new section 43013.1 of the Health and Safety Code, which requires the CEC to develop a timetable for the removal of MTBE from gasoline at the earliest possible date, and requires the ARB to ensure that the CaRFG3 regulations maintain or improve upon emissions and air quality benefits achieved by CaRFG2 as of January 1, 1999, and provide additional flexibility to reduce or remove oxygen from motor vehicle fuel;

WHEREAS, Senate Bill 529 (Bowen), also signed by the Governor on October 10, 1999, (Stats. 1999, ch. 812) prohibits the ARB from adopting any regulation that establishes a specification for motor vehicle fuels unless a multimedia assessment and review is conducted;

WHEREAS, on June 28, 1999, the CEC determined that, to ensure adequate supply and availability of gasoline for California consumers, the timetable for removal of MTBE from California's gasoline should not be advanced earlier than the deadline of December 31, 2002;

WHEREAS, at a hearing on December 9, 1999, the Board approved the CaRFG3 amendments to the CaRFG regulations, including the following major elements:

A prohibition of the use of MTBE in gasoline starting December 31, 2002, and limits on the residual levels of MTBE in gasoline of 0.3 percent by volume (vol.%) starting December 31, 2002, 0.15 vol.% starting December 31, 2003, and 0.05 vol.% starting December 31, 2004;

The adoption of CaRFG3 flat, averaging and cap limits for the eight properties regulated by the CaRFG2 program; these limits become applicable December 31, 2002, although there is a mechanism which allows refiners to produce gasoline subject to the CaRFG3 standards before that date;

A new CaRFG3 Predictive Model, which includes a new evaporative hydrocarbon emissions element that will allow an alternative RVP flat limit between 6.40 and 7.20 pounds per square inch (psi), when compared against a flat limit of 6.90 psi;

Elimination of quality audit requirements in the provisions pertaining to California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB); and

Small refiner CaRFG3 standards with less stringent flat limits for benzene and aromatics content, T50, and T90 for a qualifying small refiner who had produced CaRFG2 in 1998 and 1999; the refiner could only use the small refiner CaRFG3 standards, however, if it offsets the excess emissions with changes to its diesel fuel produced pursuant to a mechanism to be added to the ARB's regulation limiting the aromatic hydrocarbon content of California diesel fuel;

WHEREAS, the CaRFG3 amendments became operative on September 2, 2000;

WHEREAS, on June 12, 2001, U.S. EPA denied ARB's request for a waiver of the federal RFG year-round 2.0 wt.% minimum oxygen mandate, on the ground that the mandate prevents or interferes with attainment of the national ambient ozone standard in California because the mandate will preclude the production of nonoxygenated CaRFG3 which, on average, would result in lower NOx emissions than oxygenated CaRFG3; Governor Davis and the ARB have filed a petition challenging this action in the U.S. Court of Appeals for the Ninth Circuit;

WHEREAS, on March 14, 2002, Governor Gray Davis issued Executive Order D-52-02, in which he found that it is not possible to eliminate use of MTBE on January 1, 2003 without significantly risking disruption of the availability of gasoline in California;

WHEREAS, Executive Order D-52-02 included a direction to the ARB to take the necessary actions, by July 31, 2002, to postpone for one year the prohibitions of the use of MTBE and other specified oxygenates in California gasoline, and the related requirements for California Phase 3 reformulated gasoline;

WHEREAS, at a hearing on July 25, 2002, the Board approved amendments to the CaRFG3 regulations including the following elements:

Postponement of the prohibitions regarding MTBE and other oxygenates other than ethanol in California gasoline supplied by refiners and importers from December 31, 2002 to December 31, 2003, with the downstream phase-in requirements also postponed by one year;

Postponement by one year the dates in the current schedule for reducing residual levels of MTBE in CaRFG3 after the addition of MTBE is banned; and

Postponement of the imposition of the CaRFG3 standards for gasoline properties for one year, from December 31, 2002 to December 31, 2003;

WHEREAS, at the December 9, 1999 hearing the Board directed the Executive Officer to further evaluate the practicality of the allowable MTBE residual limits for CaRFG3, including conducting one or more workshops if appropriate, and to report back to the Board by July 2002 with a recommendation on whether the limit should be revised;

WHEREAS, following a series of workshops, the staff has proposed amendments to the CaRFG3 regulations including the following elements:

Revision of the regulatory text of the prohibitions of gasoline produced with the use of MTBE or other oxygenates other than ethanol;

Revisions to the schedule for reducing allowable residual levels of MTBE in CaRFG3 after the addition of MTBE is banned;

Establishment of allowable residual levels for oxygenates other than MTBE and ethanol;

Adding a requirement for documentation of the presence or absence of ethanol in CaRFG3 delivered to retail outlets; and

Amendments that would make minor changes to the CaRFG3 regulations, including sunsetting the requirement for documentation of the presence of MTBE in the gasoline delivered to retail outlets after December 30, 2003, and replacing the recently added provision regarding oxygenates in early opt-in CaRFG3 with a requirement that early opt-in CaRFG3 meet limits of 0.60 vol.% for MTBE and 0.10 wt.% oxygen collectively from the specified oxygenates other than MTBE or ethanol when it is supplied from the production or import facility;

WHEREAS, the California Environmental Quality Act and Board regulations require that an action not be adopted as proposed where it will have significant adverse environmental impacts if feasible alternatives or mitigation measures are available which would substantially reduce or avoid such impacts;

WHEREAS, the Board has considered the impact of the proposed amendments on the economy of the State;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, the Board finds that:

The amendments adopted herein that change the regulatory prohibitions regarding gasoline produced with the use of MTBE, or with the use of oxygenates other than MTBE or ethanol, will provide clear enforcement criteria that will make the prohibitions easier to administer and also remove the ambiguities that could have unnecessarily excluded imported blendstocks that contain very small amounts of MTBE and other prohibited oxygenates that are incidentally acquired through the production process or during transport;

Data collected by the staff indicate that the current regulatory timetable regarding residual levels of MTBE may not allow sufficient time to reduce residual MTBE to the specified levels – even in an MTBE-free distribution system;

The amendments adopted herein that revise and extend the current schedule for reducing residual levels of MTBE are accordingly necessary to provide for a more practical transition to MTBE-free gasoline and to allow residual levels of MTBE to decline without unduly interfering with the supply and availability of gasoline in California;

The revised schedule adopted herein is also necessary to allow sufficient time for staff to evaluate the practicality of the phased-in limits on residual MTBE levels in CaRFG3 and, if necessary, propose changes to the Board to avoid disruptions in the supply and availability of California gasoline;

The current CaRFG3 regulations do not establish maximum permitted residual levels of oxygenates other than MTBE and ethanol;

The amendments adopted herein that add a timetable for reducing allowable residual levels of oxygenates other than MTBE or ethanol is necessary to enable ARB inspectors to effectively enforce the prohibitions regarding these oxygenates, allowing differentiation between commonly occurring trace contaminants and deliberately added oxygenates;

The remaining amendments adopted herein are necessary and appropriate to provide needed flexibility and help ensure effective enforcement of the oxygenate provisions of the CaRFG3 regulations;

Since the approved amendments to the allowable residual levels for MTBE and specified other oxygenates do not affect the CaRFG3 or CaRFG3 standards for California gasoline, they do not constitute new or amended specifications for motor vehicle fuel;

WHEREAS, pursuant to the requirements of the California Environmental Quality Act, and the Board's regulations, the Board further finds that:

The approved amendments will not significantly affect the formulation of California gasoline; therefore, they will not have a significant adverse air quality or other environmental impact; and

The prohibitions against adding MTBE and other oxygenates other than ethanol remain unchanged; therefore, there will be no significant negative impacts on water quality;

WHEREAS, the Board further finds that:

The regulations approved herein will have a minor, if any, impact on the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses with California, or the expansion of businesses currently doing business within California

The amendments approved herein are designed to provide clarity, enhance flexibility, and ensure the practical and effective implementation of the CaRFG3 regulations; no adverse economic impacts are expected from the regulatory action approved herein; and

Since the approved amendments are not designed to reduce emissions, there is no cost-effectiveness value that can be assigned to the amendments *per se*; however, since the amendments provide additional flexibility to refiners and importers, they are expected to make the overall CaRFG3 regulations more cost-effective.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the adoption of or amendments to sections 2260(a)(26.5), 2261(b)(3), 2262.6, 2263.,2273, and 2273.5 of title 13, California Code of Regulations, as set forth in Attachment A hereto, with the modifications described in Attachment B hereto and a further modification to section 2273.5 to provide that the documentation may be left at a reasonably secure location at the outlet.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to incorporate the modifications described in Attachment B (as further modified) into the amendments contained in Attachment A, with such other conforming modifications as may be appropriate, and then to adopt the modified amendments, after making the modified regulatory language available for supplemental public comment for a period of at least

15 days as required by Government Code section 11346.8, provided that the Executive Officer shall consider all written comments regarding the modifications as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if he determines that this is warranted.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to continue to evaluate the practicality of the allowable residual limits for the prohibited oxygenates and report back to Board on whether the schedule for reducing these residual levels should be revised.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to submit the amendments as finally adopted to the U.S. EPA as a revision to the California SIP.

I hereby certify that the above is a true and correct copy of Resolution 02-34, as adopted by the Air Resources Board.

for Stacey Dorais, Clerk of the Board

Resolution 02-34

December 12, 2002

Identification of Attachments to the Resolution

Attachment A: The Proposed Regulation Order attached as Appendix A to the Staff Report: Initial Statement of Reasons, release date October 25, 2002.

Attachment B is attached hereto.

ATTACHMENT B

1. Amend section 2263, title 13, California Code of Regulations, to add at the end of the table in section 2263(b)(1):

2262.6(c)	oxygen from oxygenates identified in section 2262.6(c)(4)	ASTM D 4815-99

2. Add at the end of proposed section 2273.5, title 13, California Code of Regulations:

If neither the outlet operator nor a responsible employee is at the outlet at the time of delivery, the documentation may be left at the outlet.