State of California
AIR RESOURCES BOARD

Resolution 04-39

November 18, 2004

Agenda Item No.: 04-10-4

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, section 43018(a) of the Health and Safety Code directs 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;

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 3 California reformulated gasoline (CaRFG3) regulations, which prohibit the use of methyl tertiary butyl ether (MTBE) and oxygenates other than ethanol in California gasoline starting December 31, 2003 and currently include the following elements:

> Standards for eight gasoline properties, including denatured ethanol – 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 CaRFG3 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);

A CaRFG3 Predictive Model Procedures document that sets forth mathematical equations, based on 27 vehicle emissions test programs, that predict the changes in exhaust hydrocarbons, NOx, and potency weighted toxics resulting from different gasoline formulations; in addition, the model includes a new evaporative hydrocarbons element that allows 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;

In the case of oxygen content, a requirement that CaRFG3 sold throughout the distribution system in Los Angeles, Orange, Riverside, San Bernardino, 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, CaRFG3 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 CaRFG3 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 CaRFG3 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 CaRFG3 regulations – to 80 percent of California gasoline pool and must be sold in the severe and extreme federal ozone non-attainment areas; these regulations require a year-round oxygen content of 2.0 wt.% or 2.1 wt.% on average;

WHEREAS, the ARB staff has proposed 2004 amendments to the CaRFG3 regulations, which include the following elements:

Revisions to the restrictions on blending CARBOB with other products downstream of the production or import facility, including the authorization of protocols with the ARB's Executive Officer permitting the blending of small amounts of transmix or California gasoline into CARBOB in limited circumstances;

Changing the documentation requirements for denatured ethanol being supplied from one party to another;

Elimination of the sampling, testing, and record keeping requirements for importers of CARBOB where the averaging compliance option is not used;

Clarification of requirements for gasoline produced in Northern California and transported by marine vessel to Southern California;

A correction to the "California Procedures for Evaluating Alternative Specifications for Phase 3 Reformulated Gasoline Using the Predictive Model" (the CaRFG3 Predictive Model Procedures) to provide that gasoline with an oxygen content within the range of 3.3 to 3.7 wt.% will be evaluated at a single oxygen content of 3.5 wt.%;

Other miscellaneous changes that would provide clarifications, corrections, or improvements in compliance flexibility or enforcement ability;

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 proposed revisions to the restrictions on blending CARBOB with other products downstream of the production or import facility are necessary and appropriate to avoid the costly diversion of transmix or other products when blending small amounts of the products into downstream CARBOB, and will not appreciably change the emissions characteristics of the gasoline ultimately marketed at gasoline outlets;

The proposed changes to the documentation requirements for imported denatured ethanol being supplied from one party to another are appropriate to make those requirements more practical for importers of denatured ethanol coming from a number of different producers;

The sampling and testing requirements for importers of CARBOB where the averaging compliance option is not used are not necessary for the effective enforcement of the CaRFG3 regulations; the requirement that producers of CARBOB sample and test each batch was eliminated in 2000 without adversely affecting enforcement;

The proposed amendments eliminate the unintended implication from the use of the word “imported” that additional testing requirements may apply to gasoline produced in the Bay Area and received at a Southern California marine terminal;

The proposed correction to the CaRFG3 Predictive Model Procedures implements the expressed intent of the staff and Board as reflected in the Staff Report in the original CaRFG3 rulemaking that gasoline with an oxygen content within the range 3.3-3.7 wt.% is to be treated in the same way as gasoline with oxygen contents in the ranges of 1.8-2.2 wt.% and 2.5-2.9 wt.%, in order to promote the fungibility of downstream CARBOB and gasoline; and

The proposed amendments also include additional minor clarifications and corrections to the regulatory language that will improve the way the regulations are administered;

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

The proposed amendments will not significantly affect the formulation of California gasoline, and accordingly will not have significant adverse air quality or other environmental impacts;

The prohibitions of MTBE use and other oxygenates other than ethanol remain unchanged, so there will be no significant negative impacts on water quality; and

WHEREAS, the Board further finds that:

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

The amendments adopted herein are designed to provide clarity, enhance flexibility, and ensure the practical and effective implementation of the CaRFG3 regulations; and

Since the amendments are not designed to reduce emissions, there is no need for a cost-benefit analysis; but as the amendments provide additional flexibility to refiners, importers, and suppliers, they are expected to make the overall CaRFG3 regulations more cost-effective.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the amendments to sections 2260, 2262, 2262.4, 2262.5, 2262.6, 2262.9, 2263, 2265 (and the incorporated “CaRFG3 Predictive Model Procedures), and 2266.5 of title 13, California Code of Regulations, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to submit the amendments to U.S. EPA as a revision to the California State Implementation Plan.

I hereby certify that the above is a true and correct copy of Resolution 04-39, as adopted by the Air Resources Board.

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Lori Andreoni, Clerk of the Board

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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 1, 2004.