REQUEST FOR EARLY EFFECTIVE DATE

AMENDMENTS TO REGULATIONS FOR GASOLINE AND DIESEL FUEL TEST METHODS

Pursuant to Government Code Section 11343.4(c), the Air Resources Board (ARB or the Board) requests that it's most recent amendments to the Phase 3 California Reformulated Gasoline Regulations (CaRFG3) and the Diesel Fuel Regulations become effective upon filing with the Secretary of State. Good cause for this request exists, as more particularly discussed below. This rulemaking consists of amendments to California Code of Regulations, title 13, sections 2262.9, 2263, and 2282.

A. Amendments to the CaRFG3 regulations include: (1) specifying direct testing of denatured ethanol for future analyses, (2) designating ASTM D7754-11 for the future analysis of methyl tertiary butyl ether (MTBE) and other prohibited oxygenates in California gasoline, (3) designating ASTM D6550-10 for the future analysis of olefins in California gasoline, (4) designating ASTM D4815-09 for the future analysis of permitted oxygenates in California gasoline, and (5) removing ASTM D2622-94 for the future analysis of sulfur in California gasoline.

(1) Amendment to section 2262.9 [1] to specify direct testing of denatured ethanol for future analyses

At the time of the development of CaRFG3 regulations, no ASTM test methods for adequately measuring benzene, aromatic hydrocarbons, and olefins in denatured ethanol existed. As a result, section 2262.9 currently provides that compliance is to be determined by measuring the denaturant before it is added to the pure ethanol; the result is then multiplied by a dilution factor to indirectly determine the concentration of the analyte in denatured ethanol. However, since the vast majority of denatured ethanol used in California is produced outside the state, ARB and downstream stakeholders do not typically have access to the denaturants used in the production of denatured ethanol sold in California. As a result, neither ARB nor gasoline blenders can check the denatured ethanol for compliance with these specifications.

Now that test methods capable of adequately measuring these chemical species in denatured ethanol are available, the Board amended the section to allow direct testing of denatured ethanol as an alternative to analyzing the denaturant using ASTM method D7576-10 for the measurement of benzene and total aromatic hydrocarbons in denatured ethanol, and ASTM method D7347-07e1 for the measurement of olefins in denatured ethanol. In the event of any discrepancy between results obtained by analyzing the denatured ethanol using the new test methods and analyzing the denaturant alone as has been the case in previous practice, the results obtained by analyzing the denatured ethanol would take precedence.

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[1] Unless otherwise specified, all section references are to California Code of Regulations, title 13.

No test methods, other than those cited above, are known to adequately perform these analyses. An early effective date is necessary because the amendments specifying the new test methods will protect public health, welfare, and the environment by ensuring that denatured ethanol used in California gasoline complies with the benzene, aromatic hydrocarbon, and olefin specifications. ARB anticipates that the benefit to the people of the State of California from the early effective date will outweigh any negative effect on affected businesses, since the affected industry requested the effective date specified in the amendments, i.e., two months following approval by the Office of Administrative Law (OAL).

(2) Amendment to section 2263(b) to designate ASTM D7754-11 for the future analysis of MTBE and other prohibited oxygenates in California gasoline

Section 2263(b) currently calls for measuring prohibited oxygenates in California gasoline by ASTM D4815-04. The limit of quantification of this test method is 0.2 vol% for each individual oxygenate. However, ARB's fuel regulations have phased down the MTBE limit in four steps from a limit of 0.60 vol% starting on December 31, 2003 (0.30 vol% starting on July 1, 2004, then 0.15 vol% starting on December 31, 2005) and finally 0.05 vol% starting on July 1, 2007. Additionally, the regulations contain a limit of 0.06 wt% for the total oxygen contribution from all other prohibited oxygenates. ASTM D4815-04 cannot meet this requirement unless all of the oxygen is coming from a single prohibited compound. As a result, neither ARB nor other stakeholders can presently adequately determine whether a sample of gasoline meets the current regulatory requirements.

The Board amended the section to incorporate ASTM D7754-11, which has a limit of quantification of 0.005 vol% for each individual oxygenate. This will allow ARB and other stakeholders to verify compliance with section 2262, by more precisely measuring MTBE and oxygenates, other than ethanol, in California gasoline.

No other test methods capable of performing this analysis, which have been published by a recognized testing standards developer, presently exist. ARB has a strong interest in facilitating compliance with the prohibited oxygenates element of the CaRFG regulations, because, as we discovered with MTBE, certain compounds in gasoline may result in significant groundwater contamination due to leaking underground fuel tanks. An early effective date is necessary because the amendments specifying the new test methods will protect public health, welfare, and the environment by ensuring that California gasoline complies with the specifications for MTBE and other prohibited oxygenates. ARB anticipates that the benefit to the people of the State of California from the early effective date will outweigh any negative effect on affected businesses, since the affected industry requested the effective date specified in the amendments, i.e., two months following approval by OAL.

(3) Amendment to section 2263(b) to designate ASTM D6550-10 for the future analysis of olefins in California gasoline

The Board amended section 2263(b) to designate the use of ASTM D6550-10 for future analyses of olefins in California gasoline. An appendix within ASTM D6550-10 contains California-specific information that is absent in the version currently specified in the regulation, ASTM D6550-00. Although this information is currently published in footnotes in the existing regulation, having the information available directly in the test method is clearer and more convenient for users of the method, and will ensure more effective compliance. The amendment involves no cost to stakeholders and thus no cost will be incurred because of an early effective date. Therefore, an early effective date is necessary for clarity, convenience, and to facilitate compliance with the regulations.

(4) Amendment to section 2263(b) to designate ASTM D4815-09 for the future analysis of permitted oxygenates in California gasoline

The Board amended section 2263(b) to require the use of ASTM D4815-09 for future analyses of permitted oxygenates in California gasoline. ASTM D4815-09 corrects minor errors in the -04 version. While these errors do not directly affect the method's results, they could cause confusion for analysts learning the method. As with the previous amendment, stakeholders will incur no costs by the amendment or an early effective date. Therefore, an early effective date is necessary for clarity and to correct errors in the previous method.

(5) Amendment to section 2263(b) to designate ASTM D5580-02(2007) for the future analysis of benzene and total aromatic hydrocarbons in California gasoline

The Board amended section 2263(b) to require the use of ASTM D5580-02(2007) for future analyses of benzene and total aromatic hydrocarbons in California gasoline. ASTM D5580-02(2007) contains a different, and more appropriate, precision statement than what is present in the footnotes to the test methods table in section 2263(b). For any given gasoline sample, the precision calculated using the newer test method may be tighter or looser than the precision calculated using the equations in section 2263(b). However, the differences are small, and for all of California gasoline blends as a whole, no significant difference in precision (and therefore enforceability) is expected. Stakeholders have not raised any objections to the change (other than a request that the effective date be two months following OAL approval). Having the precision statements available in the published test method is more convenient for users than having a separate statement as a footnote in the regulations, and no cost to stakeholders will result from the change or an early effective date. Therefore, an early effective date is necessary for clarity and convenience.

(6) Amendment to section 2263(b) to remove ASTM D2622-94 for the future analysis of sulfur in California gasoline

The Board amended section 2263(b) to delete ASTM D2622-94 for future analyses of sulfur in California gasoline. Section 2263(b) currently specifies both ASTM D2622-94 and ASTM D5453-93 for the measurement of sulfur in California gasoline. However, ASTM D2622-94 has a limit of quantification of 10 ppm sulfur, which is higher than the levels currently observed in most California gasoline blends. On the other hand, ASTM D5453-93 is more sensitive, and therefore, more appropriate for lower levels of sulfur in gasoline. Recent discussions with the Western States Petroleum Association (WSPA) indicated that no California refiner is using ASTM D2622-94 in the production of fuel for use in California. Therefore, no costs to stakeholders are expected from this change. An early effective date is necessary to more accurately measure the lower levels of sulfur typically observed in today's gasoline.

B. Amendments to the Diesel Fuel Regulations include: designating ASTM D5186-03(2009) for the future analysis of aromatic hydrocarbons and polycyclic aromatic hydrocarbons in California diesel fuel.

The Board amended the diesel fuel regulation to require the use of ASTM D5186-03(2009) for future analyses of aromatic hydrocarbons and polycyclic aromatic hydrocarbons in California diesel fuel. The quality control (QC) section of ASTM D5186-96 requires that laboratories which analyze a wide variety of diesel fuels run several different QC samples each day. Studies conducted by ASTM Committee D02 determined that this requirement is excessive, so ASTM D5186-03(2009) requires only a single QC sample each day. This amendment will save time and money for laboratories which will be able to immediately reduce their QC analyses, and will have no cost impact for other stakeholders. Therefore, an early effective date is necessary to assist laboratories, who test California gasoline, in saving time, money, and materials associated with the additional QC analyses.

ARB staff will promptly notify affected stakeholder representatives and organizations affected by this rulemaking via electronic mail as soon as the effective date and the amendments are filed with the Secretary of State.

Date: 12/16/2013

Diane Kiyota
Senior Attorney