

Marc Ventura

Sr Advisor, Fuels Strategy



PROVIDING ENERGY. IMPROVING LIVES.

September 14, 2026

Attention: California Air Resources Board

Submitted electronically

Comments on the Proposed Amendments for California Gasoline Regulation for E15

Phillips 66 Company (Phillips 66) appreciates the opportunity to comment on the proposed amendments to the California Reformulated Gasoline Regulations (CaRFG) for enabling the certification and sale of E15 (up to 15% ethanol blends) that were posted for public comment on July 28, 2026. Phillips 66 is a producer and importer of renewable and conventional fuels. Phillips 66 supplies California gasoline, E85 for flex-fuel vehicles, and renewable diesel and markets fuels under the 76® brand in California. Phillips 66 supports amending the CaRFG regulation to enable the sale of E15 as this will help increase the resiliency of California gasoline supply, reduce greenhouse gas emissions and provide consumers with more choices.

We appreciate that the California Air Resources Board (CARB), in addition to addressing the certification of gasoline blended with 15% volume ethanol (E15), is taking the opportunity during this rulemaking to update the CaRFG regulation to remove obsolete regulatory text. In addition to the proposed changes, CARB should also incorporate:

- An option to blend 15% ethanol or E85 directly with CARBOB to produce E15, in addition the option to blend incremental ethanol or E85 to E10 (gasoline blended with 10% volume ethanol).
- An updated Predictive Model to calculate emissions for gasoline blends up to 15% ethanol.
- An alternative fuel formulation, such as a US EPA reformulated gasoline formulation.
- Updated test methods to current ASTM revisions.

The comments below are in response to the language proposed in Appendix A-1 of the Proposed Regulation Order (PDF file).

Definitions

E10 & E15

In section 2260, on pages 24 and 25, CARB should redefine E10 as a blend with up to 10% volume of denatured ethanol, rather than up to 10.0%. This will make E10 consistent with other states and the U.S. EPA, enable more flexibility for maximizing ethanol blending in E10 up to 10.4% and enable lower costs. CARB should define E15 as a blend from 10.5% to 15% volume of denatured ethanol, not from 10.1 to 15%, as blends up to 10.4% ethanol should be considered E10.

Emissions associated with permeation

CARB should consider removing the reference to “producers” in the definition of “emissions associated with permeation” (on page 25) to better align the definition with the sole remaining use of the term in Section 2262.3(b). Additionally, CARB should update the equations provided in the definition of “emissions associated with permeation” on page 25 with a coefficient applicable up to 15% ethanol blending.

Imported Gasoline

The proposed definition of “Imported gasoline” (quoted in full below) is not clear and may cause confusion among the regulated community. CARB should amend the proposed definition to clarify the language and provide an example of applicability.

Current CARB Proposal: *“Imported gasoline” means gasoline which is transported into California and does not meet the definition for California gasoline that is produced in California, and that the producer knows or reasonably should know will be offered for sale or supply at an out-of-state terminal or bulk plant at which it will be identified as gasoline produced in California and suitable for sale as motor vehicle fuel in California.*

CARB should streamline and clarify this definition to reflect that imported gasoline includes gasoline that has been certified outside the state as suitable for sale in California as motor vehicle fuel and then transported into the state. Suggested language could include the following:

“Imported gasoline” means:

- *CARBOB certified outside California and imported by ship, barge, rail car or pipeline into California.*
- *E10 or E15 certified outside California and imported by truck into California.*

Predictive Model

The Predictive Model, which calculates gasoline emissions based on the gasoline properties, has not been updated in more than 15 years and is no longer representative of the fuel emissions from the current class of vehicles. Therefore, CARB should update the Predictive Model to reflect the current fleet and class of vehicles and emission control technologies operating in California today. The Predictive Model should also be expanded to calculate emissions with gasoline containing up to 15% volume ethanol, rather than just up to 10% ethanol.

Alternative Formulation

CARB should establish an alternative compliance pathway that allows U.S. EPA Reformulated Gasoline (RFG) to be supplied in California. Allowing federally compliant RFG to satisfy California fuel requirements would increase supply flexibility, enhance market fungibility, and improve fuel availability during periods of refinery outages or other supply disruptions. Expanding the pool of gasoline that can be supplied in California would promote competition, strengthen fuel resiliency, and help reduce costs to consumers while maintaining applicable environmental protections.

Standards

CARB should update the language in section 2261, page 33, to specify the December 31, 2011, cap limits, rather than December 31, 2003, cap limits, as CARB is removing old references from the 2004 and 2006 temporary CaRFG phase 3 standards on the table from page 68, as these older standards are now obsolete.

Ethanol and Oxygen Range

CARB should consider updating the table in section 2262 on page 68 to include a single range for ethanol that spans from 0% to 15% volume, rather than providing separate limits for E10 and E15. However, if CARB maintains different specifications for E10 and E15, cap limits should be reflected for all properties listed on the table, not just oxygen. For the oxygen content, CARB should amend the table values to incorporate the variability of the CARBOB density and the ethanol volume% of up to 10.4% for E10, as reflected in the following figures:

- 3.3 to 4 weight% oxygen for E10.
- 3.7 to 6 weight% oxygen for E15.

The table footnotes should also be amended to specify that the limit for E10 is 10% volume (inclusive of up to 10.4%) rather than 10.0%.

Test Methods

The test methods listed in section 2263 (b) on table 1, pages 82-83, should be updated with the most current revision year of the ASTM standards, as the tests referenced in the regulation refer to obsolete revisions of the methods spanning from 1958 to 2011.

Certification of CARBOB and Blending of E15

The language in section 2265 (a)(2)(A)3, page 90, reproduced below, is not relevant for CARBOB blended directly with 15% ethanol. CARBOB will typically be blended with 10% or 15% ethanol, rather than E10 blended with additional ethanol. CARB should state that CARBOB may be blended with up to 15% ethanol.

Gasoline with 10.1 to 15 Percent Ethanol by Volume. A producer or importer may blend additional ethanol into E10 compliant with subsection 2265(a)(2)(A)2 immediately above to produce E15.

CARB should update section 2266.5 (a)(2)(C), page 114, to reflect standards for CARBOB blended with up to 15% ethanol.

The table in section 2266.5 (a)(6)(A), page 119, should be updated for E15. The CARBOB properties, including aromatics, benzene, olefins, sulfur, T50, T90 and RVP, should have a different limit (generally higher) for CARBOB blended with 15% ethanol.

Section 2266.5 (a)(6)(B), page 120, should be updated for downstream CARBOB compliance blended with 15% ethanol.

Section 2266.5 (g)(2)(C), page 131, should also include language to allow for CARBOB blending with E85 to produce E10.

Phillips 66 welcomes the opportunity to clarify any of the comments or recommendations presented above or provide additional feedback and supporting information as CARB advances this rulemaking. Thank you for your consideration.

Marc Ventura

Phillips 66 Company
Sr Advisor, Fuels Strategy
marc.v.ventura@p66.com
510-245-4405