California Air Resources Board

# Proposed Amendments to the California Reformulated Gasoline Regulations

# Staff Report: Initial Statement of Reasons

*Date of Release: July 28, 2026*

*Scheduled for Consideration: September 24, 2026*

# Table of Contents

# Executive Summary

The California Air Resources Board (CARB) is responsible for adopting and enforcing motor vehicle fuel specifications, standards, and regulations to protect public health and the environment, to achieve toxic air contaminant emissions and greenhouse gas (GHG) emissions reductions, and to accomplish the attainment of the State and National Ambient Air Quality Standards (NAAQS) at the earliest practicable date. Under this authority, CARB administers and implements fuel regulations and standards, including the California Reformulated Gasoline Regulations[1] (CaRFG regulations), that establish specifications for California gasoline properties, including, but not limited to, allowable ethanol by percent volume, oxygen content, and Reid Vapor Pressure (RVP) requirements.[2] Gasoline standards are set and maintained to minimize tailpipe emissions for the benefit of public health and the environment. Meeting federal air quality requirements may also be important for avoiding potential sanctions and loss of federal highway funding. In this rulemaking, CARB is proposing to amend the CaRFG regulations and make other conforming changes (Proposed Amendments) to support the voluntary sale of E15 by transportation fuel suppliers.

On October 2, 2025, Governor Gavin Newsom signed Assembly Bill (AB) 30[3] as an urgency statute. Since coming into immediate effect on that date, AB 30 has allowed the sale in California of blends of gasoline containing ethanol in a range of 10.5% to 15% ethanol by volume (E15). Ethanol is a renewable fuel with lower carbon intensity (CI) than petroleum-derived gasoline. AB 30 added a new section, section 43013.7, to the Health and Safety Code. Section 43013.7 allows the sale of E15 until CARB either adopts a regulation establishing a specification for E15 gasoline or publicly posts an assessment that it is not possible for such a regulation to avoid or reduce an adverse impact on public health or the environment. As called for by Health and Safety Code section 43830.8, state agencies conducted a multimedia evaluation of E15 (E15 MME) on the impact to public health and the environment. The multimedia evaluation found the use of E15 does not pose a significant adverse impact on public health or the environment compared to gasoline with up to 10% ethanol (E10).

Supported by that E15 MME and in accordance with AB 30, the Proposed Amendments would add a specification for E15 gasoline to the CaRFG regulations to clarify the applicable standards under which fuel suppliers may continue to voluntarily offer E15 for sale. Neither AB 30 nor the Proposed Amendments mandate that all gasoline conforms to the E15 blend. Instead, both AB 30 and the Proposed Amendments allow E15 to be sold alongside E10, thus providing fuel supply market participants with an option to supply E15 should they voluntarily select to do so. Notably, E85, which is an alternative motor vehicle fuel, will also continue to be sold in the State. As California moves toward a clean economy to meet its climate and air

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[1] Cal. Code Regs., tit 13, §§ 2250-2273.5.

[2] RVP is a standard measure of gasoline and petroleum fuel volatility, defined as the vapor pressure exerted by a fuel sample at 100°F (37.8°C) using the ASTM D323 test method; RVP is expressed in pounds per square inch.

[3] Assem. Bill No. 30 (2025-2026 Reg. Sess.) Ch. 247, Stats. 2025, codified as Health & Safety Code, § 43013.7.

quality goals, AB 30 and the Proposed Amendments assist in ensuring a safe, affordable, and reliable supply of gasoline to meet consumer demand in California.

# I. Introduction and Background

## A. Overview of the Proposed Amendments

On October 2, 2025, Governor Newsom signed AB 30, adding section 43013.7 to the Health and Safety Code. Section 43013.7 was effective upon enactment and immediately allowed blends of gasoline containing 10.5% to 15% ethanol by volume to be sold in the State for use as a transportation fuel. The statute specifies that those blends may be sold until either the California Environmental Policy Council (CEPC) completes its review of the E15 MME and CARB adopts a regulation for gasoline blends containing 10.5% to15% ethanol by volume, or until CARB determines that no such regulation can meet applicable requirements. Prior to the enactment of AB 30, CARB gasoline regulations authorized the use of California Reformulated Gasoline, comprised of a maximum of 10.0% ethanol by volume and at least 90% by volume California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB); this gasoline blend is referred to as E10.

Before CARB may adopt a regulation establishing a specification for motor vehicle fuel, Health and Safety Code section 43830.8 requires that an MME be conducted and reviewed by the CEPC, along with the proposed gasoline specification regulations. The CEPC members include Directors, Chairpersons, or designees from Department of Pesticide Regulation (DPR), Department of Toxic Substances Control (DTSC), CARB, State Water Resources Control Board (SWRCB), Office of Environmental Health Hazard Assessment (OEHHA) and Department of Resources Recycling and Recovery (CalRecycle). The Secretary for Environmental Protection serves as a Chair of the CEPC. The purpose of an MME is to develop information to enable the CEPC to determine whether a new fuel specification would cause any significant adverse impacts to public health or the environment. Section 43830.8 of the Health and Safety Code directs that the CEPC completes its review of the multimedia evaluation within 90 calendar days following notice from CARB that it intends to adopt the regulation. The E15 MME has been completed, and a Staff Written Summary (CARB, 2025a) was provided to the CEPC in December of 2025 with a finding that the use of E15 fuel in California, as evaluated in the MME, does not pose any significant adverse impacts on public health or the environment compared to E10.

The objectives of the Proposed Amendments are to adopt a specification for CaRFG that would support fuel suppliers' ability to voluntarily offer CaRFG containing 10.1% to 15% ethanol by volume for sale, to include flexibility for the option to sell E15, and to remove obsolete regulatory text. To align with the current CaRFG regulations of the ethanol percent by volume limit of 10.0% (E10), the lower limit of ethanol percent by volume of E15 is being proposed at 10.1%. The CaRFG regulations currently include E10 fuel properties that include RVP, sulfur, benzene, total aromatics, olefins, oxygen contents, and T50 and T90 distillation temperatures. These CaRFG E10 fuel standards will be applicable for E15, except for the oxygen content. The additional ethanol volume in E15 would result in fuel exceeding the current oxygen content limit of E10, whereby the upper oxygen cap limit for the existing CaRFG E10 is 3.7 percent by weight. To resolve this conflict with AB 30, staff are proposing to add an upper oxygen cap limit at 6.0 percent by weight of oxygen content for E15 fuel. The Proposed Amendments also include amendments to specify that E15 may be produced by adding additional ethanol to CARBOB or CaRFG, or by blending E85[4] with E10 to produce E15. The Proposed Amendments do not mandate that all gasoline sold in California be E15. Instead, the Proposed Amendments specify how E15 may be offered in addition to the current E10 blend.

Additionally, as part of this rulemaking, staff is proposing to remove obsolete regulatory text and make associated conforming modifications where the dates of the compliance or regulatory deadlines have passed, and so no longer have legal or practical effect and are no longer necessary for continued implementation of the CaRFG regulations.[5] This clean-up is not anticipated to have any regulatory effect. As part of this clean-up, staff is also proposing to remove a never-used provision under section 2266, which set forth the process for certifying gasoline formulations that achieve emission reductions equivalent to CaRFG requirements based on motor vehicle emissions testing; this provision is proposed for deletion because it is less practical than alternative approaches and has never been used.

CaRFG regulations are included in the State Implementation Plan (SIP) approved by the United States Environmental Protection Agency (U.S. EPA) in 2010 and are federally enforceable under the Clean Air Act (CAA).[6] A SIP is a collection of regulations and documents used to implement, maintain, and enforce the NAAQS and fulfill other requirements of the federal CAA.[7] Upon adoption of the Proposed Amendments, CARB will submit the amended CaRFG regulations to the U.S. EPA as a revision to the SIP.

## B. Relevant Background Information

The California Air Resources Board has worked to improve air quality and public health with motor vehicle policies that reduce the release of the pollutants associated with the combustion of fossil fuels for nearly 60 years. In the 1980s and ‘90s, California cars became the cleanest in the world. CARB, which had already eliminated lead in gasoline, adopted standards for cleaner-burning gasoline, as well as initial standards for cleaner diesel fuel for trucks and buses. These actions have successfully improved the State’s air quality, while California’s population and economy have continued to grow. In addition to improving air quality, CARB is also charged with developing programs and actions to fight climate change. For 20 years, California has been working to reduce climate pollution. California’s Global Warming Solutions Act of 2006, Assembly Bill (AB) 32, charged CARB with reducing statewide GHG emissions to 1990 emission levels by 2020.[8] Senate Bill (SB) 32 expanded upon the targets in AB 32 by

[4] Cal. Code Regs., tit 13, § 2292.4.

[5] In alignment with the proposed removal of one such obsolete provision from the CaRFG regulations, staff is proposing a single amendment to title 13, California Code of Regulations, section 2282 (Aromatic Hydrocarbon Content of Diesel Fuel) as part of this rulemaking to remove a reference from that regulation to an obsolete term in the CaRFG regulations.

[6] 75 Fed. Reg. 26653 (May 12, 2010).

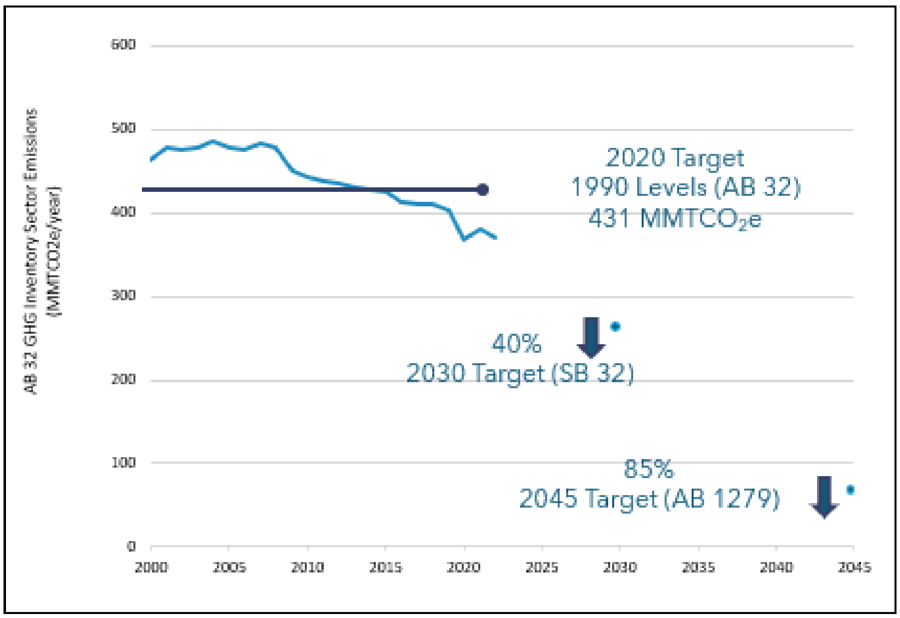
[7] See 42 U.S.C. § 7410.

[8] Assem. Bill No. 32 (2005–2006 Reg. Sess.), ch. 488, Stats. 2006, codified at Health & Safety Code, § 38500 et seq.

requiring a reduction in greenhouse gas emissions of 40% below 1990 levels by 2030.[9] AB 1279 aims to reduce anthropogenic emissions by at least 85% below 1990 levels no later than 2045.[10] However, more work remains. The transportation sector remains the largest source of criteria and greenhouse gas pollution.

Figure 1 below shows the declining emissions trend in the statewide greenhouse gas emissions inventory and the fact that the state has achieved the initial AB 32 1990 target level six years ahead of schedule in 2014. The work continues towards the 2030 GHG reduction target, which requires reducing statewide greenhouse gas emissions 40% below 1990 level by 2030 and also working towards the long-term targets to achieve an 85% reduction and achieve carbon neutrality by 2045. As detailed in the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB, 2022), to get to the 2030 and 2045 greenhouse gas reduction mandates, the state must cut existing greenhouse gas emissions across all sectors.

Figure 1: GHG Emission Reduction Goals



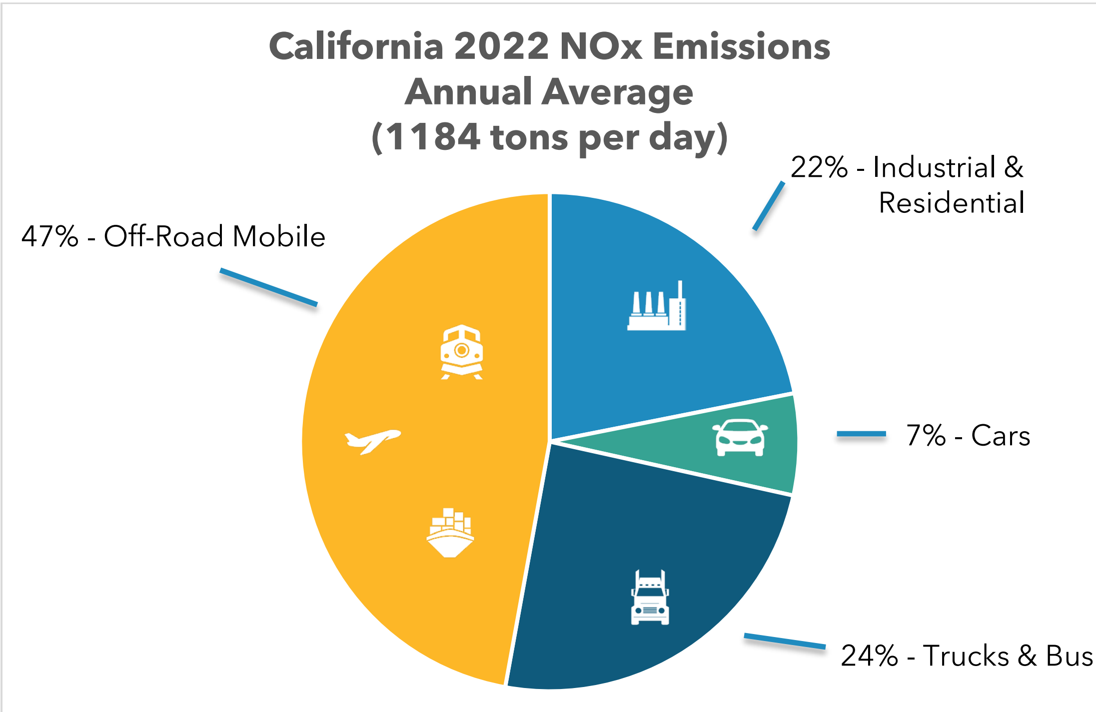

Transportation continues to be the largest source of greenhouse gas emissions and source of air pollution in California. As documented in CARB's 2022 Scoping Plan for Achieving Carbon Neutrality, 40% of the total greenhouse gas emissions came from fossil fuel use in the transportation sector (CARB, 2022). When including GHG emissions from fossil fuel refining, the transportation sector's contribution to GHG emissions is even higher. As shown in Figure 2, the transportation sector accounted for nearly 80% of statewide oxides of nitrogen (NOx) emissions in 2022. Additionally, 30% of fine particulate matter emissions come from the

[9] Sen. Bill No. 32 (2015–2016 Reg. Sess.), ch. 249, Stats. 2016, codified at Health & Safety Code, § 38566.

[10] Assem. Bill No. 1279 (2021–2022 Reg. Sess.), ch. 337, Stats. 2022, codified at Health & Safety Code, § 38562.2.

transportation sector (CARB, 2022). These criteria pollutant emissions are a leading cause of poor air quality and adverse health outcomes in California.

Figure 2: California 2022 NOx Emissions Annual Average*




*Data source: CEPAM2022v1.01B

To address both the climate and air pollution impacts from transportation, California has pursued a multi-decade's effort to make combustion vehicles cleaner and more fuel efficient, accelerate the deployment of zero-emission vehicles, and pursue cleaner fuels that reduce greenhouse gas emissions and air pollution. NOx emissions have dropped nearly 70 percent since the 1970s due to California's vehicle rules which have directly resulted in the development of major technological advances that reduce vehicle emissions.

While California's transportation sector is in the midst of a transition away from fossil fuels, gasoline remains California's dominant transportation fuel.

Additionally, the California Gas Price Gouging and Transparency Law (SB X1-2)[11] required the development of an assessment to address the key issue of ensuring a reliable supply of affordable and safe transportation fuels for combustion vehicles in California in the context of transitioning to a zero-emission future. The *Draft California Transportation Fuels Transition Plan May 1st, 2026* (CEC/CARB, 2026) was released in May 2026 and provides California with several possible paths forward to maintain a reliable and affordable fuel supply that also prioritizes California's health, community, and environmental needs. This Plan identified

[11] Sen. Bill No. X1-2 (2023–2024 1st Ex. Sess.), ch. 1, Stats. 2023, codified at Public Resources Code, §§ 25354.2, 25355.5, 25355.7, 25367, and ch. 4.6 (commencing with § 25370) of div. 15.

increased blending of E15 as a Fossil Demand Reduction Strategy. However, the actual expected penetration of E15 retail sales remains uncertain. As noted in the *Draft California Transportation Fuels Transition Plan May 1st, 2026,* there are mediating effects to E15 adoption that should be considered (CEC/CARB, 2026). Factors referenced in the Plan include potential retailer or consumer hesitance, potential costs due to necessary equipment upgrades or insurance requirements; and incompatibility of E15 for some engines (engines in motorcycles, lawnmowers, chainsaws, motorboats, snowmobiles, vehicles with heavy-duty gasoline engines, and pre-2001 light-duty vehicles).

To help bring more transparency to these factors, as well as the impacts of E15 deployment in California, CARB staff prepared the *Supplemental Analysis on Costs and Benefits of Expanded E15 Availability, as Authorized by AB 30* which is available in Appendix B.

## C. Relevant Existing Regulations

### 1. California Reformulated Gasoline Regulations

CaRFG regulations ensure California gasoline reduces smog-forming pollutants by controlling fuel properties with phased implementation to achieve and continue emission reductions from vehicles. CaRFG Phase 1 implemented in 1992, removed lead, lowered RVP, and added additives in gasoline. CaRFG Phase 2 implemented in 1996, further reduced RVP and sulfur, regulated aromatics, benzene, olefins, and distillation properties and requiring oxygenates year-round. The oxygenate in gasoline requirement went into effect under CaRFG Phase 2 in response to the federal Clean Air Act (CAA) of 1990. The federal winter oxygenates program, CAA section 211(m),[12] requires states to implement an oxygenated gasoline program in those areas designated nonattainment for the federal carbon monoxide (CO) NAAQS, which began in the winter of 1992. These requirements are in effect during the portion of the year in which a non-attainment area is subject to high ambient concentrations of CO, with a regulatory control period of no less than four months. The oxygenate is required in the South Coast Area and Imperial County, annually from November 1 through to the end of February to meet the minimum oxygen content of 1.8% by weight. The current CaRFG Phase 3, adopted in 2003, prohibits the use of methyl tert-butyl ether (MTBE) as an oxygenate after December 31, 2003. Phase-in of MTBE prohibitions was included in the regulation to achieve gradual reduction of MTBE content in the fuel through phased caps until July 1, 2007. CaRFG Phase 3 also requires an RVP range of 6.40 pounds per square inch (psi) to no greater than 7.20 psi.

To meet the oxygenate requirements for reformulated gasoline under the CAA, ethanol became a replacement for prohibited MTBE use as an oxygenate. In 1999, an MME was

[12] Clean Air Act, Section 211(m); 42 U.S.C. § 7545(m).

conducted regarding the use of ethanol in gasoline and, currently in the CaRFG regulations, the use of blends of up to 10.0% ethanol by volume in gasoline (E10) is permitted.

### Low Carbon Fuel Standard (LCFS) Program

California's LCFS Program[13] is a foundational program of California's fuels transition helping to increase the production and use of cleaner alternative fuels. The LCFS requires a reduction in the carbon intensity of California's transportation fuel pool by 30% by 2030 and by 90% by 2045. Since implementation in 2011, the LCFS has helped to replace more than 25 billion gallons of liquid petroleum fuel (CARB, 2024b). Ethanol is a renewable fuel with lower carbon intensity than petroleum-derived gasoline. When ethanol is blended with gasoline, ethanol displaces petroleum-based components of gasoline and reduces lifecycle greenhouse gas emissions of the finished gasoline blend. As of 2024, the overall lifecycle carbon intensity of California's transportation fuel pool has been reduced by more than 15% since 2011 (CARB, 2024c). The additional ethanol volume allowed in CaRFG regulations would support progress towards achieving greenhouse gas emissions reduction goals while reducing several air pollutants, which will be discussed later in Chapter VI, Environmental Analysis.

### Vapor Recovery Program

State law[14] requires CARB to certify components that accept or transfer gasoline at dispensing facilities. This includes, among other components and equipment, nozzles and hoses. Before CARB certifies such components State law requires prior approvals from four state agencies – the State Water Resources Control Board (SWRCB), California Office of Safety and Health Administration (OSHA), California Department of Food and Agriculture (CDFA), and Office of the State Fire Marshal, depending on the equipment. Currently, there are no components certified as E15 compatible. CARB has published the steps that manufacturers must take to expeditiously certify E15 compatible equipment.

## 2. Federal E15 Gasoline Regulations

In 2011, U.S. EPA approved E15 use for vehicle model year (MY) 2001 and newer cars, light-duty trucks and medium-duty passenger vehicles.[15] The federal approval was not applicable in California as California law established a lower ethanol limit. Vehicles and engines that are not compatible with E15 due to potential for damage to internal engine components, and that are prohibited from using E15 include conventional vehicles older than MY 2001, all motorcycles, vehicles with heavy-duty engines, such as school buses and delivery trucks, off-road vehicles, such as boats and snowmobiles, and all engines in off-road equipment such as leaf blowers and gasoline lawn mowers.[16] U.S. EPA also regulates the RVP limits outside of California, requiring gasoline sold at retail outlets during the summer high ozone season to meet the RVP

[13] The LCFS program is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits. Cal. Code Regs., tit. 17, §§ 95480-95503.

[14] Health & Saf. Code, §§ 41955, 41957, 25290.1.2.

[15] 76 Fed. Reg. 4662 (Jan. 26, 2011).

[16] 76 Fed. Reg. 44406 (July 25, 2011); 40 C.F.R. Part 80; 40 C.F.R. Part 1090

limits or issue waivers for summertime use.[17] Under 40 C.F.R. section 1090.215, gasoline RVP may not exceed 9.0 psi (with an allowance for an additional ethanol 1-psi waiver for E10 only) during the summertime with several areas needing to meet a more stringent 7.4 psi during summertime. For retailers and wholesale purchaser-consumers, summertime is generally June 1 to September 15, for all other entities it is May 1 through September 15. Eight Midwestern states (Illinois, Iowa, Minnesota, Missouri, Nebraska, Wisconsin, Ohio, South Dakota) are permitted for year-round E15 use.[18] States that are not permitted to sell E15 year-round must obtain an U.S. EPA summertime RVP waiver. The waiver is typically limited to 20-day increments and renewed across the season as needed. U.S. EPA has been issuing nationwide E15 summertime waivers beginning in 2022.[19]

### 3. Comparative California and Federal RVP Limits

The current CaRFG Regulations require an upper cap limit of 7.20 psi for CaRFG (E10) and the Proposed Amendments would also require that to be applicable to E15 within the State. This CaRFG RVP limit of 7.20 psi does not exceed the Federal RVP limit of 9.0 psi.

### 4. Misfuelling Mitigation Plan Requirements

U.S. EPA approved E15 use for vehicle MY 2001 and newer cars, light-duty trucks and medium-duty passenger vehicles. To prevent misfuelling of E15 into vehicles, engines and equipment that are not approved to use E15, U.S. EPA requires E15 fuel producers to receive approval of and implement a Misfuelling Mitigation Plan (MMP) prior to introduction of the fuel into commerce. The MMP must include provisions that will implement all reasonable precautions for ensuring that the fuel is only introduced into commerce for use in MY2001 and newer motor vehicles. Reasonable precautions in an MMP must include, but are not limited to, the following conditions:

1. Labels must be placed on E15 retail dispensers indicating that E15 use is only for MY 2001 and newer motor vehicles;
2. Product Transfer Documents must accompany all transfers of fuels for E15 use;
3. Parties involved in the manufacture of E15 must participate in a survey of compliance at fuel retail dispensing facilities; and
4. Any other reasonable measures U.S. EPA determines are appropriate.

The U.S. EPA MMP requirements are applicable to those involved with the production, importation, distribution, marketing, or retailing of E15 gasoline.[20]

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[17] 42 U.S.C. § 7545
[18] 89 Fed. Reg. 14760 (February 29, 2024)
[19] U.S. EPA. Fuel Waivers. https://www.epa.gov/gasoline-standards/fuel-waivers
[20] 76 Fed. Reg. 44406 (July 25, 2011); 40 C.F.R. Part 80; 40 C.F.R. Part 1090.

### 5. Gasoline Designation and Exemptions for California Gasoline

Effective January 1, 2021, U.S. EPA supplanted 40 C.F.R. Part 80 with 40 C.F.R. Part 1090. Subsection 1090.215 *Gasoline RVP Standards* states:

> Gasoline designated as California gasoline or used in areas subject to the California reformulated gasoline regulations must comply with those regulations under Title 13, California Code of Regulations (C.C.R.), sections 2250-2273.5.

Subsection 1090.625 outlines exemptions for California gasoline. The Proposed Amendments will amend C.C.R. sections 2250-2273.5 so that California gasoline will continue to meet the designation of California Gasoline in 40 C.F.R. section 1090.215.

# II. The Problem that the Proposal is Intended to Address

On October 2, 2025, Governor Newsom signed AB 30, adding section 43013.7 to the Health and Safety Code. Section 43013.7 immediately allowed blends of gasoline containing 10.5% to 15% ethanol by volume to be sold in the State for use as a transportation fuel. Prior to the enactment of AB 30, CARB gasoline regulations authorized the use of California Reformulated Gasoline, comprised of a maximum of 10.0% ethanol by volume and at least 90% by volume CARBOB; this gasoline blend is referred to as E10. The objectives of the Proposed Amendments are to adopt a specification for blends of CaRFG containing more than 10.0% ethanol by volume up to 15% ethanol by volume, to include flexibility for the option to sell E15, and to remove obsolete regulatory text.

# III. The Specific Purpose and Rationale of Each Adoption, Amendment, or Repeal

## A. Minor Changes Applicable to Multiple Sections

The proposed changes in this section update text that does not alter current requirements under the regulation. In general, all of these changes help to reduce unnecessary regulatory text and improve the readability and clarity of the regulation.

### 1. Repeal of entire sections

**Purpose**

Staff is proposing to repeal several obsolete sections in their entirety. Obsolete sections include requirements for gasoline that was produced, supplied, or sold prior to 1996, requirements under California Reformulated Gasoline Phase 2, as well as phase-in implementation dates and early compliance dates for California Reformulated Gasoline Phase 3.

The purpose of repealing obsolete sections is to remove outdated regulatory provisions that no longer have legal or practical effect and are no longer necessary for continued implementation of the CaRFG regulations. Multiple sections within the CaRFG regulations were designed to govern the original introduction and transition to reformulated gasoline in the early to mid-1990s. All pre-1996 gasoline requirements, California Reformulated Gasoline Phase 2 requirements, phase-in deadlines, compliance schedules, as well as transitional timelines and standards have long since lapsed. As a result, these provisions no longer regulate any current fuel production and do not currently impose obligations on regulated entities.

**Rationale**

***a. Obsolete Pre-1996 Requirements***

These sections were the original gasoline specifications in California. They became obsolete with the introduction of California Reformulated Gasoline Phase 2 standards that became effective in 1996. Regulated entities no longer produce gasoline under these specifications, requirements, and provisions. This change would affect current sections 2250, 2251.5 and 2252 of the Proposed Regulation Order.

***b. Superseded California Reformulated Gasoline Phase 2 Requirements***

California Reformulated Gasoline Phase 2 provisions became obsolete and were superseded with the introduction of California Reformulated Gasoline Phase 3 standards that became effective in 2000. Regulated entities no longer produce gasoline under these specifications, requirements, and provisions. This change would affect the previously numbered section 2261(a) of the Proposed Regulation Order.

***c. Completion of Phase-In Requirements and Early Compliance Dates***

California Reformulated Gasoline Phase 3 contained several phase-in requirements, such as interim MTBE limits, minimum oxygen content cap limits, compliance plans submittals, Alternative Emissions Reductions Plans, Ethanol Emission Reduction Plan, and various early compliance dates and transition periods, which all occurred in either 1996, 2003, 2004, or 2009. Regulatory text tied to these historical dates and transition periods no longer apply and regulated entities no longer produce gasoline under these specifications, requirements and provisions. This change would affect the previously numbered sections 2261(b)(2)-(7), 2262.4(b)(2)(A)2, 2262.4(b)(2)(A)3, 2262.5(d), 2262.6(b), and 2262.6(c)(2), 2262.6(c)(5), 2262.6(c)(6), 2265(a)(2)(A)2-6 and 2265.5 as well as current sections 2262.5(a)(2)(B), 2262.5(e)(2), 2269, and 2273 of the Proposed Regulation Order.

## 2. Repeal of portions of subdivisions that are obsolete

**Purpose**

Staff is proposing to remove several obsolete portions of sections within the CaRFG regulations. Obsolete portions include reference to provisions, terms and definitions that no longer apply to, or are used by, regulated entities. Obsolete provisions include California Reformulated Gasoline Phase 2 limits and historical phase in requirements. Obsolete terms and definitions include “CaRFG Phase 2,” “qualifying small refiner,” “third party AERP,” and “third party EERP.” More information about changes to qualifying small refiner can be found in Chapter III, section H.

The purpose of removing obsolete portions is to eliminate outdated provisions, terms and definitions that no longer have legal or practical effect. All previous Phase 2 requirements and phase-in provisions have long since lapsed. As a result, these portions no longer regulate any current fuel production and do not impose obligations on regulated entities.

**Rationale**

*a. Superseded Phase 2 (CaRFG2) Requirements*

California Reformulated Gasoline Phase 3 requirements superseded all California Reformulated Gasoline Phase 2 requirements, making prior Phase 2 provisions, terms and definitions unnecessary. This change would affect the previously numbered sections 2260(a)(6.6), 2272(b)(2) and 2265(a)(2)(A)2, current sections 2260, 2262, 2262.3, 2262.4, 2262.5(a)(2)(B) and 2266.5(a)(6)(A) as well as the titles of sections 2262, 2262.3, and 2262.4 of the Proposed Regulation Order.

*b. Completion of Phase-In Requirements and Early Compliance Dates*

Phase-in provisions have been completed. With the completion of prior phase-in requirements and early compliance dates, those associated portions no longer apply to, or are used by, regulated entities. The proposed changes remove these phase-in portions to ensure the regulation reflects current requirements. This change would affect the previously numbered sections 2260(a)(8.5), 2260(a)(37), 2260(a)(38), 2260(a)(39), 2261(b)(1), 2262.4(b)(2)(A)1, 2262.5(a)(2)(B), 2265(a)(2)(A)7 as well as current sections 2257(a)(1)[i], 2260, 2262, 2262.4(a)(2)(A), 2262.6(a)(2), 2263(b)(1), 2265.1(b)(3), 2266.5(a)(2)(D)3.a, 2266.5(a)(6)(A), 2266.5(b)(1), 2266.5(b)(1)(E), 2270(a)(5) and 2271(e)(1)(B) of the Proposed Regulation Order.

### 3. Removal of references to repealed sections or subdivisions

**Purpose**

Staff is proposing to delete all references to repealed or changed sections throughout the CaRFG regulations outlined in Chapter III, sections A.1., A.2., A.4., and A.6.

**Rationale**

All references to repealed sections are being removed as they would be referencing sections that no longer exist. Failure to do so would cause significant regulatory confusion. This change would affect the previously numbered sections 2260(a)(15), 2260(a)(19.7), 2261(c), 2261(d), 2262, 2262.6(c)(4), 2262.6(c)(5), 2262.6(c)(6), 2265(a)(3) and 2265(c)(4), as well as current sections 2262, 2262.3(b), 2262.3(c), 2262.5(d)(1), 2263.7, 2264.2(a)(1), 2264.2(a)(3), 2264.2(b)(3), 2264.2(b)(5), 2264.2(d)(2), 2265(a)(3), 2265(c)(4), 2266.5(a)(1), 2266.5(a)(2)(A)2, 2266.5(a)(2)(A)3, 2266.5(a)(2)(C), 2266.5(a)(3), 2266.5(a)(6)(A), 2266.5(b)(1), 2266.5(h)(2)(B), 2270(a)(5), 2271(a), 2271(e)(1)(A) and 2272(e)(1)(E) of the Proposed Regulation Order.

### 4. Updates to Administrative and Regulated Entity Information

**Purpose**

Staff is proposing to update administrative and entity information portions of the CaRFG regulations. These updates include changing “ARB” to “CARB,” revising the CARB contact information used for submitting notifications of corrective action and registration materials from the Compliance Division to the Executive Officer, updating the company name from American Society of Testing and Materials (ASTM) to ASTM International, changing the acronym “PM” to “predictive model,” and updating the company name from Kern Oil and Refining to Kern Energy.

**Rationale**

***a. CARB Acronym Change and Reference Consistency***

Several years ago, CARB changed its standard acronym from the “ARB” to the “CARB.” Staff is proposing to amend the language to update references to the older acronym. This change would affect current sections 2265.1(a)(2)(A)5, 2265.1(a)(3)(A)2, 2265.1(a)(2)(A)5, and 2266.5(b) of the Proposed Regulation Order. Unnecessary references to CARB divisions are also being removed. These changes would affect the previously numbered section 2266.5(g) [proposed 2266.5(f) as shown under Chapter III.A.7 below] (1)(A) as well as current sections 2257(a)(3) and 2257(c)(1)(A)(iii) of the Proposed Regulation Order.

***b. Updated ASTM Organization Name***

American Society of Testing and Materials changed its name to ASTM International in 2001 and no longer treats “ASTM” as an acronym. Staff is updating the name within the regulation to reflect this change. This update is necessary to update the organization’s name within the regulation and prevent ambiguity in future references to ASTM standards. This change would affect the previously numbered section 2260(a)(3) and current section 2253.4(c) of the Proposed Regulation Order.

***c. Updated Regulated Entity Company Name***

Kern Oil & Refining Company changed its name to Kern Energy in 2022. Staff is updating the company name within the CaRFG regulations to reflect this change. This update is necessary to maintain accuracy within the regulation and ensure correct identification of the regulated entity. This change would affect previously numbered section 2260(a)(29) of the Proposed Regulation Order.

***d.* Changed “PM” Acronym to “Predictive Model”**

This change prevents confusion between the acronym “PM,” which is commonly used to refer to particulate matter in air quality contexts, and the Predictive Model as used in the CaRFG regulations. Using the full term “Predictive Model” improves clarity and maintains consistency throughout the CaRFG regulations. This change would affect the previously numbered section 2260(a) as well as current sections 2260, 2262.3, 2262.4, 2262.5, 2264(d), 2264.2, 2265, 2265.1, 2266.5, 2270, 2271(e)(1)(B) of the Proposed Regulation Order.

***e.* Changed “California Production Facility” to “Production Facility”**

This change removes “California” from the beginning of the term “production facility,” which is already defined as a facility in California. This change eliminates redundancy and avoids confusion with the term “California production facility,” a term defined in section 2250 for use within that section and is proposed for repeal. This change would affect the previously numbered sections 2260(a)(26.5), 2260(a)(27), 2262.6(c), as well as current section 2262.6(a) of the Proposed Regulation Order.

### 5. Removal of Numbering for Definitions

**Purpose**

Staff is proposing to remove the numbering from all the definitions in the CaRFG regulations.

**Rationale**

This change aligns the CaRFG regulations with CARB's updated formatting structure and ensures consistency across CARB regulations. This change would affect the previously numbered section 2260(a), as well as current sections 2253.4(b) and 2257(b) of the Proposed Regulation Order.

### 6. Aligning Reference Formatting

**Purpose**

Staff is proposing to align reference formatting by consistently using abbreviated citations for internal references to sections or subsections within the same section (e.g., section (b)(1)(B)) and full citations for cross-references to sections or subsections outside the section (e.g., 2263.4(b)(1)(B)). Staff is also proposing to change "paragraphs" to "sections" when referring to subsections within the same section (e.g., "sections (a), (b), and (c)" instead of "paragraph (a), (b), and (c) of this section") to maintain consistency throughout the CaRFG regulations.

**Rationale**

This change ensures that references to sections and subsections are formatted consistently throughout the CaRFG regulations. This change would affect the previously numbered sections 2260(a)(15), 2266.5(i)(2), 2262.6(c)(4), and 2265(a)(3), as well as current sections 2259(a)(1), 2259(b)(2), 2259(f)(8), 2259(g), 2262.4(b)(2)(A)2., 2262.4(b)(2)(A)3., 2262.5(d)(2), 2262.9(b)(1)(D), 2264(d), 2264.2(a), 2264.2(b), 2264.2(c), 2264.2(d), 2265(a)(3), 2265(b)(1), 2265(b)(2), 2265.1(d), 2266.5(a)(2)(A)2., 2266.5(a)(2)(A)3., 2266.5(a)(3), 2266.5(b)(1)(C)2., 2266.5(f)(1)(A)2., 2266.5(f)(1)(B), 2266.5(f)(1)(E)3.b., 2266.5(f)(1)(E)3.c., 2266.5(f)(1)(E)5., 2266.5(f)(2)(C) and 2271(b)(2) of the Proposed Regulation Order.

### 7. Renumbering Sections

**Purpose**

Staff is proposing to renumber subsections in the CaRFG regulations where sections discussed in ISOR Chapter III, section A.1 above have been repealed or are proposed for repeal to ensure that the remaining numbers follow a logical and continuous sequence.

**Rationale**

This change eliminates unnecessary gaps in subsection numbering resulting from previous and proposed repeals to improve the clarity and readability of the CaRFG regulations.

Renumbering prevents confusion referencing specific sections and maintains consistency throughout the Proposed Regulation Order.

The table below provides the list of affected sections that will be renumbered in the Proposed Regulation Order.

| List of Renumbered Sections | | |
|---|---|---|
| 2253.4(a)(3) | → | 2253.4(a)(1) |
| 2253.4(a)(4) | → | 2253.4(a)(2) |
| 2253.4(a)(5) | → | 2253.4(a)(3) |
| 2260(a) | → | 2260 |
| 2261(b) | → | 2261(a) |
| 2261(b)(1)(A) | → | 2261(a)(1) |
| 2261(b)(1)(B) | → | 2261(a)(2) |
| 2261(c) | → | 2261(b) |
| 2261(d) | → | 2261(c) |
| 2261(e) | → | 2261(d) |
| 2261(f) | → | 2261(e) |
| 2262.5(e) | → | 2262.5(d) |
| 2262.6(c) | → | 2262.6(b) |
| 2262.6(c)(1) | → | 2262.6(b)(1) |
| 2262.6(c)(3) | → | 2262.6(b)(2) |
| 2262.6(c)(4) | → | 2262.6(b)(3) |
| 2265(a)(2)(A)7 | → | 2265(a)(2)(A)2 |
| 2266.5(d) | → | 2266.5(c) |
| 2266.5(e) | → | 2266.5(d) |
| 2266.5(f) | → | 2266.5(e) |
| 2266.5(g) | → | 2266.5(f) |
| 2266.5(h) | → | 2266.5(g) |
| 2266.5(i) | → | 2266.5(h) |

## 8. Update of References to Renumbered Sections

### Purpose

Staff is proposing to update references to renumbered sections in the CaRFG regulations where sections listed in Chapter III, sections A.7. have been renumbered.

**Rationale**

All references for the renumbered sections are being updated so they would be referring to the correct sections of the regulation. Failure to do so would cause significant regulatory confusion. This change would affect the previously numbered sections 2260(a)(19.7), 2261(d), 2262.6(c)(3), 2262.6(c)(4), 2262.6(c)(5), 2266.5(f)(1)(A)2, 2266.5(f)(1)(E)3.b, 2266.5(f)(1)(E)3.c, 2266.5(f)(1)(E)5, 2266.5(f)(1)(I), 2266.5(f)(2)(A), 2266.5(f)(2)(B), 2266.5(f)(2)(C), 2266.5(f)(2)(D), 2266.5(g)(1)(D), 2266.5(h)(2)(A), 2266.5(h)(2)(B), 2266.5(i)(1), and 2266.5(i)(2), as well as current sections 2253.4(d), 2262, 2263(b)(1), 2266.5(a)(6)(A), and 2266.5(i)(1) of the Proposed Regulation Order.

## B. Section 2260. Definitions.

**Purpose**

This section sets forth definitions for the terms used in the California Reformulated Gasoline Regulations. Staff is proposing to amend the CaRFG regulations to modify the existing definition for “CARBOB limits” and a more detailed synopsis for that follows below. Staff is also proposing to add “Terminal”, “E10,” “E15,” “E85,” “Cap limit,” and “Flat limit” definitions.

**Rationale**

The Proposed Amendments are needed to either modify definitions or remove unnecessary definitions due to the changes to be implemented from the repeal of obsolete sections as outlined in Chapter III, sections A.1. and A.2. The Proposed Amendments of adding E10 and E15 definitions provide that CaRFG includes both “E10” and “E15”. The Proposed Amendment of adding “E85” to section 2260 is to ensure that only E85 meeting the specifications in section 2292.4 is allowed to be blended with E10 to produce E15. The Proposed Amendments to the CaRFG regulations establish specifications for E15 gasoline blends containing 10.1% to 15% ethanol by volume. Although AB 30 specifically identified blends of gasoline containing 10.5% to 15% ethanol by volume, the lower 10.1% limit of ethanol percent by volume for E15 is being proposed for consistency with current CaRFG regulation applicability. A “Terminal” definition is also added to describe a facility that stores, blends, and distributes gasoline. “Cap limit” and “Flat limit” are added to provide definition for what the applicable limits are via different production pathways.

“**CARBOB limits**”

**Purpose**

The Proposed Amendments modify the definition of “CARBOB limits” to remove the language stating “and maximum and minimum oxygen content,” to correct the section number of the CARBOB standards table from section 2262 to 2266.5, and to remove the language stating “and for any other property identified in a certification order issued by the Executive Officer pursuant to the “California Procedures for Evaluating Alternative Specifications for Gasoline Using Vehicle Emissions Testing,” incorporated by reference in section 2266(a), if applicable.”

**Rationale**

This amendment is needed to remove oxygen content properties since CARBOB does not contain ethanol and therefore does not have applicable oxygen content requirements. The correction to the section citation, from section 2262 to 2266.5, ensures that the definition correctly references the CARBOB standards table rather than the CaRFG standards table. The removal of reference to alternative specifications based on vehicle emissions testing is needed because section 2266 is proposed for repeal as outlined in Chapter III, section 1.c. Collectively, these modifications ensure the definition is accurate, aligns with current regulatory intent, and removes references to sections that will be repealed.

## C. Section 2262. The California Reformulated Gasoline Phase 2 and Phase 3 standards.

**Purpose**

This section adds new oxygen content (% by weight) cap and flat limits of 3.8% - 6.0% and 2.3% - 3.5% by weight, respectively, to set appropriate standards for E15. Footnotes are added for E10 and E15 ethanol and oxygen content requirements. The Proposed Amendments update the California Reformulated Gasoline fuel standards table in section 2262, and the name of the section, currently "*The California Reformulated Gasoline Phase 2 and Phase 3 Standards*" to reflect the removal of unnecessary MTBE standards as well as references to California Reformulated Gasoline Phase 2. The Proposed Amendments also remove from the authority note for the section citations to Health and Safety Code section 43013.7 as both "authority" and "reference."

**Rationale**

This section add new oxygen content cap and flat limits for E15 as the current fuel standards cover oxygen content limits for E10 only. A minimum E15 cap limit is proposed at 3.8% to continue from the proposed E10 maximum oxygen content limit of 3.7%. An upper E15 cap limit is proposed at 6.0% to account for the additional oxygen from ethanol up to 15% by volume. A minimum E15 flat limit is proposed at 2.3% to continue from the maximum E10 flat limit of 2.2%. The upper E15 flat oxygen content limit is proposed at 3.5%. Footnotes are added for E10 and E15 requiring that oxygen weight % are within each respective E10 and E15 range.

References to California Reformulated Gasoline Phase 2 requirements are proposed to be removed as unnecessary because California Reformulated Gasoline Phase 3 requirements superseded all California Reformulated Gasoline Phase 2 requirements. The MTBE standard is also removed as MTBE has been phased out and is prohibited as provided in section 2262.6 *Prohibition of MTBE and Oxygenates Other Than Ethanol in California Gasoline Starting December 31, 2003*. Footnotes 3, 4, 5, and 7 have been removed as unnecessary, matching the other removals from the table.

On March 27, 2026, pursuant to California Code of Regulations, title 1, section 100, the Office of Administrative Law added authority note citations to Health and Safety Code section 43013.7 as part of CARB's request to align the provision with the inconsistent and superseding statutory change allowing the immediate sale of E15 in California. Those citations will no longer be necessary upon adoption of the proposed fuel specifications for E15 included in this section with these Proposed Amendments.

## D. Section 2262.5. Compliance with the Standards for Oxygen Content.

**Purpose**

This section removes from the authority note for the section citations to Health and Safety Code section 43013.7 as both “authority” and “reference.”

**Rationale**

On March 27, 2026, pursuant to California Code of Regulations, title 1, section 100, the Office of Administrative Law added authority note citations to Health and Safety Code section 43013.7 as part of CARB’s request to align the provision with the inconsistent and superseding statutory change allowing the immediate sale of E15 in California. Those citations will no longer be necessary upon adoption of the proposed fuel specifications for E15 included with these Proposed Amendments.

<u>Subdivision 2262.5(b)</u>

**Purpose**

This subdivision includes a revised ethanol content percent by volume to align with the proposed addition of E15 fuel specifications to section 2262 and remove the superseded regulatory text “Except as authorized by Health and Safety Code section 43013.7.”

**Rationale**

The proposed amendment to specify an ethanol content limit of 15 percent by volume rather than the previous limitation of 10 percent by volume is necessary to align with the proposed addition of E15 fuel specifications in section 2262. On March 27, 2026, pursuant to California Code of Regulations, title 1, section 100, the Office of Administrative Law added the reference to Health and Safety Code section 43013.7 at CARB’s request to align the provision with the inconsistent and superseding statutory change allowing the immediate sale of E15 in California. That reference will no longer be necessary upon adoption of the proposed fuel specifications for E15 included with these Proposed Amendments.

<u>Subdivision 2262.5(d)</u>

**Purpose**

The subdivision removes restrictions on adding oxygenates to California gasoline after it has been supplied from the production or import facility.

**Rationale**

This provision is no longer necessary. Subdivision 2262.5(d) was needed when MTBE was an approved oxygenate and during overlapping transition from MTBE to ethanol. As the production of MTBE-free gasoline was mandated by December 31, 2003, MTBE has been completely phased out. Removing this section allows a person to add additional ethanol to E10 to make E15. Furthermore, subdivision 2262.5(b) limits ethanol percent by volume to 15% which would prohibit a person from exceeding the ethanol percent by volume after it has been supplied from the production or import facility.

## E. Section 2265. Gasoline Subject to PM Alternative Specifications Based on the California Predictive Model.

Subparagraph 2265(a)(2)(A)2.

**Purpose**

This subparagraph adds text to specify that the existing provision is applicable for gasoline with up to 10.0% ethanol by volume and removes an obsolete 2012 date reference.

**Rationale**

The addition of text specifying that gasoline with up to 10.0% ethanol by volume can continue to meet predictive model alternative specifications is a necessary clarification for alignment with the addition of an E15 fuel specification. The removed 2012 date reference is no longer necessary for the prospective applicability and associated practical implementation of this provision.

Subparagraph 2265(a)(2)(A)3.

**Purpose**

The Proposed Amendments add new subparagraph 2265(a)(2)(A)3. for gasoline with 10.1% to 15% ethanol by volume.

**Rationale**

This amendment provides new regulatory text that allows that a final blend of California gasoline that complies with the 10.0% ethanol by volume California gasoline standards, including the immediately preceding paragraph 2265(a)(2)(A)2., may blend in additional ethanol to increase ethanol volume up to 15% to produce a range of 10.1% to 15% ethanol by volume California gasoline.

## F. Section 2266. Certified Gasoline Formulations Resulting in Equivalent Emission Reductions Based on Motor Vehicle Emissions Testing.

**Purpose**

This section sets forth a process for certifying gasoline formulations that achieve emission reductions equivalent to CaRFG requirements based on motor vehicle emissions testing. Staff is proposing to repeal this unused section in its entirety and to remove the associated definitions and references throughout the CaRFG regulations to “TC alternative specifications, “TC limits,” “TC alternative specifications,” “TC alternative specification for oxygen,” “alternative gasoline formulation” and “test-certified alternative gasoline formulation” which were defined directly for use in relation to this section and become obsolete upon this section’s repeal.

**Rationale**

This amendment is needed because section 2266 no longer serves a regulatory purpose. No regulated entities rely on or operate under this certification. Repealing this unused section removes unnecessary provisions from the regulation without affecting any current regulated entity or altering existing compliance obligations. No regulated entity would be likely to use this certification in the future, because any producer or importer electing to be subject to a test-certified alternative gasoline formulation pursuant to section 2266 would need to evaluate the alternative formulation using vehicle emissions testing, which could be very expensive. Any producer or importer using this option would be restricted to a specified set of limits with every batch produced or imported. Such limitations could be practically difficult because blendstocks can vary in chemical properties. Beyond compliance with those limitations in subsection 2265.5(b)(i), this option requires additional potential burden involved with accounting for offsetting emissions associated with permeation. Compliance using the predictive model is a relatively straightforward option, allowing flexibility with each batch, and without the need for an expensive vehicle emissions testing. In addition to the proposed repeal of this section and the removal of associated definitions in previously numbered sections 2260(a)(1), 2260(a)(35) and 2260(a)(36), the removal of references to associated definitions is reflected in proposed amendments to current sections 2262.3(b), 2262.5(c), 2262.5(d)(1), 2264.2(a)(1), 2264.2(b)(3), 2264.2(d)(2), 2265(a)(3), 2265.1(d), 2266.5(a)(2)(B), 2266.5(b)(1), 2266.5(b)(1)(E) and 2266.5(d)(1)(B).

## G. Section 2266.5. Requirements Pertaining to California Reformulated Gasoline Blendstock for Oxygen Blending (CARBOB) and Downstream Blending.

Subparagraph 2266.5(g)(1)(A) now becomes 2266.5(f)(1)(A)

**Purpose**

The Proposed Amendments specify the current practice of electronic registration for oxygenate blenders and remove the option for sending in the oxygenate blender registration via the United States Postal Service.

**Rationale**

This amendment is necessary to specify a relatively practical and efficient method for submission of these registrations. Oxygenate blenders have used the online registration for years and no longer send in registration through the mail service.

Subparagraph 2266.5(g)(1)(D) now becomes 2266.5(f)(1)(D)

**Purpose**

The Proposed Amendments incorporate here the added online registration option described for renumbered subsection (g)(1)(A) (now (f)(1)(A)) described immediately above.

**Rationale**

This amendment is necessary to align with the proposed amendment to (g)(1)(A) (now (f)(1)(A)).

Subparagraph 2266.5(h)(2)(C) now becomes 2266.5(g)(2)(C)

**Purpose**

The Proposed Amendments add a new exception to the general prohibition of downstream blending of California gasoline with nonoxygenate blendstocks under subsection 2266.5(g)(1)) to allow E-85 blending with E10 to produce E15.

**Rationale**

These amendments allow E85 to be blended with E10 to produce a final blend of E15. This provision would promote flexibility for producers of E15 by allowing the use of E85 as a blendstock for E15 in addition to CARBOB, E10, and ethanol. The current subdivision prohibits downstream blending once the California gasoline has left the production or import facility (terminal) to prevent nonoxygenated blendstocks or non-California gasoline from entering into the State's fuel supply. There are several listed exceptions to this provision, and the Proposed Amendments add another exception. This exception will allow onsite blending at the retail outlet which is the predominant method of producing E15 outside of California (U.S. EPA 2026b).

## H. Section 2272. CaRFG Phase 3 Standards for Qualifying Small Refiners.

**Purpose**

This section specifies alternative CaRFG Phase 3 standards for qualifying small refiners, allowing the use of slightly relaxed flat limits in place of the Phase 3 standards in section 2262. Staff is proposing to amend the CaRFG regulations to change who the subdivision applies to from "qualifying" small refiners" to "small refiners." The current definition for "qualifying small refiner" in the previously numbered section 2260(a)(28.5) will be repealed. More information about changes to qualifying small refiner can be found in Chapter III, section A2. Section 2272 will now apply to entities that fall under the definition for "small refiners" found in the previously numbered section 2260(a)(32). All references to the word "qualifying small refiner" will be changed to "small refiner," which will affect current sections 2262 and 2272.

**Rationale**

This amendment is needed because the regulatory definition applies to small refiners whose California refinery was used in both 1998 and 1999 to produce and supply CaRFG Phase 2 gasoline. To remove obsolete terminology, a change to the affected entities in section 2272 is required. Currently, only a single entity (Kern Energy) qualifies as either a "qualifying small refiner" or a "small refiner." Due to the limiting nature of both definitions, no new entity can ever be created that would meet the regulatory definition of either a "qualifying small refiner" or as a "small refiner." Changing the applicable group that section 2272 applies to from "qualifying small refiner" to "small refiner" will reconcile the CaRFG regulations with the existing regulatory landscape and eliminate outdated terminology with no impact on the single regulated entity nor would it allow any new entities to operate under the Phase 3 standards set forth in section 2272.

### I. Section 2282. Aromatic Hydrocarbon Content of Diesel Fuel

Subparagraph 2282(e)(5)(A)

**Purpose**

This section is part of California's Standards for Diesel Fuel regulations, which like the CaRFG regulations are implemented by CARB under title 13, California Code of Regulations, Division 3, Chapter 5: Standards for Motor Vehicle Fuels. Subsection 2282(e)(5)(A) specifies annual elections for small refiners to offset excess emissions from gasoline subject to CaRFG Phase 3 standards. Staff is proposing to remove the term "qualifying small refiner" from subsection 2282(e)(5)(A) along with an accompanying reference to the CaRFG regulatory definition of that term in section 2260.

**Rationale**

This amendment is necessary to align terminology across CARB regulations consistent with the proposed removal of the obsolete term "qualifying small refiner" from the definitions in section 2260 and the matching Proposed Amendment to section 2272 of the CaRFG regulations described in Chapter III, section H above.

## IV. Benefits Anticipated from the Regulatory Action, Including the Benefits or Goals Provided in the Authorizing Statute

By adding E15 fuel specifications and associated provisions to the CaRFG regulations, the Proposed Amendments would have the benefit of clarifying regulatory requirements applicable to fuel producers and importers voluntarily selling E15 in California.

## V. Air Quality

There are no calculated air quality emissions reductions associated with the Proposed Amendments as AB 30 has already authorized the sales of blends of gasoline containing 10.5% to 15% ethanol by volume.

## VI. Environmental Analysis

### A. Introduction

CARB is the Lead Agency under the California Environmental Quality Act (CEQA) for the Proposed Amendments. This Chapter provides the basis for CARB's determination that the Proposed Amendments are exempt from the requirements of CEQA.

CARB has determined that the Proposed Amendments are exempt from CEQA under the "common sense" exemption (CEQA Guidelines section 15061(b)(3)). CARB has also determined that the Proposed Amendments are categorically exempt from CEQA under the “Class 1” exemption (Cal. Code Regs., tit. 14, § 15301) for modifications to existing facilities, “Class 2” exemption (Cal. Code Regs., tit. 14, § 15302) for replacement or reconstruction of existing structures and facilities, and “Class 8” exemption (Cal. Code Regs., tit. 14, § 15308) for actions taken by regulatory agencies for the protection of the environment. A brief explanation of this determination is provided in section B below.

CARB’s regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State’s ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of CEQA (Cal. Code Regs., tit. 14, § 15251(d)). Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. CARB, as a lead agency, prepares a substitute environmental document (referred to as an “Environmental Analysis” or “EA”) as part of the Staff Report prepared for a proposed action to comply with CEQA (Cal. Code Regs., tit. 17, §§ 60000-60008). If the Proposed Amendments are finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency for public inspection.

## B. Analysis

As mentioned above, beginning in October 2025, AB 30 authorized blends of gasoline containing 10.5 percent to 15 percent ethanol by volume to be sold in the State for use as a transportation fuel. AB 30 specified that such fuels “may be sold in the state for use as a transportation fuel” until either (1) the California Environmental Policy Council (CEPC) completes its review of the E15 MME and CARB adopts a regulation for gasoline blends containing 10.5% to 15% ethanol by volume, or (2) until CARB determines that no such regulation can meet applicable requirements. Because E15 fuel sales were authorized by AB 30 in October 2025, the ability to sell E15 in California is not attributable to the Proposed Amendments. The Proposed Amendments would not affect whether or the degree to which E15 is sold in the state. The Proposed Amendments would also not affect changes in fuel production associated with E15 sales in California. Therefore, E15 sales are already authorized as part of the “existing conditions” baseline following the enactment of AB 30. The Proposed Amendments will not change this authorization; under the Proposed Amendments, E15 would continue to be authorized for sale in California. The Proposed Amendments include fuel specifications for E15 that staff propose to add to the California Reformulated Gasoline Regulations. Neither AB 30 nor the Proposed Amendments mandate the sale of E15. Gasoline retailers may voluntarily choose to offer E15 for sale. Nor would the Proposed Amendments change the fuel blend in any way that has the potential for any environmental impacts.

Should retailers choose to sell E15, which is already authorized for sale under existing law, infrastructure upgrades may be required. Importantly, these actions are not driven by the Proposed Amendments, as state law already allows the sale of E15. Therefore, the potential minor modifications to facilities discussed here are not properly attributable to the Proposed Amendments. However, even if they were attributable to the Proposed Amendments, several CEQA exemptions would apply, as discussed below.

To provide transparency on potential impacts of E15 deployment in California as authorized by AB 30 (existing law), CARB staff prepared a supplemental analysis of expanded E15 availability, which is available in Appendix B. Retail outlets must ensure the hoses, pumps, dispensing and other equipment are compatible with E15, or they must replace existing onsite equipment with properly certified, compatible components. Retail sellers may independently determine whether to offer E15 as an additional product along with E10, and if so whether to replace existing E10-compatible infrastructure. Each individual seller's determination and current equipment will determine the additions or retrofits that might be needed in order to provide E15 and could result in the voluntary addition of new equipment and storage tanks to accommodate E15 sales. Gasoline is supplied to retail outlets by fuel distribution terminals. If gasoline retailers choose to offer E15, then fuel distribution terminals may need to install additional loading racks as necessary to dispense E15 if existing E10 loading racks cannot be used.

As directed by Health and Safety Code section 43830.8, state agencies conducted a multimedia evaluation of E15. The MME was delivered to the CEPC in December 2025. The Multimedia Working Group (MMWG), a state interagency staff team established to oversee the multimedia evaluation process, provided recommendations to the CEPC. The MMWG determined based on the E15 multimedia evaluation, and the information provided in the Final Tier I, Tier II and Tier III reports, that the use of E15, as evaluated in the multimedia evaluation, does not pose a significant adverse impact on public health or the environment compared to E10 (CARB, 2025a).

CARB's Staff Summary from the E15 MME also contains the following conclusions, which support CARB's determinations that the Proposed Amendments have no potential to cause any significant adverse environmental impacts:

Conclusions on Air Emissions Impact

As noted in this chapter, E15 use is already allowed under existing statutes, and the Proposed Amendments are not expected to cause increased E15 production or use. However, CARB still evaluated the potential for impacts from E15 generally. Based on the relative comparison between E10 and E15, CARB staff conclude that E15, as evaluated in the multimedia evaluation, does not pose any potentially significant adverse air quality impact.

- E15 reduces particulate matter, total hydrocarbons, and carbon monoxide from vehicle exhaust emissions compared to E10.
- No statistically significant difference in NOx vehicle exhaust emissions or carbon dioxide vehicle exhaust emissions compared to E10.
- While similar to E10 fuel, E15 increases acetaldehyde and ethanol vehicle exhaust emissions compared to E10. However, any potentially increased ethanol concentrations are expected to have no impact on health, due to ethanol's low anticipated health risk relative to other fuel-related chemicals of concern, and the low amount expected to be inhaled given the likely outdoor exposure. See further analysis below.

• No statistically significant impact on evaporative emissions compared to E10.

Conclusions on Water Impact

State Water Resources Control Board (SWRCB) staff conclude that given the current information and the similarities between E15 and E10, there are minimal additional risks to the beneficial uses of California waters posed by E15 as compared to current fuel blend of E10.[21] The SWRCB supports the multimedia evaluation of E15 which meets the ASTM fuel specifications and the finding of no significant adverse impacts on public health or the environment.

Conclusions on Public Health Impact

The Office of Environmental Health Hazard Assessment (OEHHA) finds that as stated in the MME, there are risks to human health and the environment inherent in the use of gasoline-ethanol blends that are related primarily to the complex mixture of volatile hydrocarbons that make up the gasoline blendstock. The public health impacts resulting from E15 are not expected to differ from those of E10.[22] As with E10, there is the potential for release of E15 into the environment, resulting in potential exposures to humans through inhalation, oral ingestion, and dermal contact. However, release and exposure scenarios for E15 are similar to those of E10 and are not expected to present an increased risk to human health. Based on the information presented in the E15 MME, the substitution of E15 for E10 shows a general decrease in levels of ozone-forming compounds, particulate matter, some VOCs, and other contaminants of concern to human health. However, E15 use may increase tailpipe emissions of a few VOCs, such as ethanol and acetaldehyde. Acetaldehyde vehicle exhaust emissions from E15 increased from 0.284 milligrams per mile to 0.373 milligrams per mile as compared to E10 (CARB, 2025c). The increase in acetaldehyde concentrations due to increased ethanol use did not result in increased cancer risk as ethanol was phased in after 1999 (CARB, 2025b). Furthermore, increased ethanol use in gasoline reduces benzene, aromatics, and 1,3-butadiene emissions that are associated with the combustion of petroleum-based gasoline (CARB, 2025b).

Toxicological studies of gasoline blended with various levels of ethanol in laboratory animals do not indicate potential for different health hazards regarding maternal, behavioral, immunological, physiological, or cognitive outcomes. Studies using cultured human cells suggest that E15 will not be more potent than E10 in terms of its cytotoxic, pro-inflammatory, oxidative stress, mutagenic, or DNA-damage effects. Overall, OEHHA did not find evidence of significant adverse impacts on human health from the use of E15 compared to E10. The Tier

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[21] See State Water Resources Control Board Staff Comments E15 Multimedia Evaluation at page 2, included in CARB. (2025c, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix B. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_B_MMWG_Agency_Evaluations_12-11-2025.pdf*.

[22] See Office of Environmental Health Hazard Assessment: The Potential for Toxicity of E15 versus E10 Exhausts at page 6, included in in CARB. (2025c, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix B. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_B_MMWG_Agency_Evaluations_12-11-2025.pdf*.

Reports support the approval of E15, based on significant environmental benefits, reduced greenhouse gas emissions, and no expected significant new public health risks compared to E10.

Conclusions on Soil and Hazardous Waste Impact

Based on available data, DTSC staff conclude that E15, if improperly released, may lead to an elongated subsurface benzene plume. However, this subsurface plume would overall also biodegrade more quickly due to the higher ethanol content compared to E10.[23] Benzene, toluene, ethylbenzene, and xylene (BTEX) contaminants from petroleum may also biodegrade less quickly in the event of an E15 release into the environment. However, BTEX compounds are reduced as ethanol concentration increases in gasoline displacing the petroleum derived portion. Improper release of E15 may also result in increased generation and release of methane. The potential risk of methane release would only be relevant to very large accidental releases and under anaerobic conditions (CARB, 2025d).

## C. "Common Sense" Exemption

CARB has determined that the Proposed Amendments are exempt from CEQA under the "common sense" exemption (CEQA Guidelines section 15061(b)(3)). This exemption applies to the Proposed Amendments because it can be seen with certainty that there is no possibility that the Proposed Amendments may result in any significant adverse impact on the environment. The Proposed Amendments involve adding fuel specifications and associated provisions to the CaRFG regulations for a fuel (E15) already authorized for sale in California. The Proposed Amendments would clarify regulatory requirements applicable to fuel producers and importers voluntarily selling E15 in California.

As discussed above, any environmental effects from the sale of E15 in California, and any facility modifications needed to accommodate it, are not attributable to the Proposed Amendments. This is because existing law already allows the sale of E15 in California, and nothing about the Proposed Amendments would affect that or any facility modifications that retailers or distributors may undertake in connection with the sale of E15. Since taking immediate effect upon singing in October 2025, AB 30 has allowed the sale in California of blends of gasoline containing ethanol in a range of 10.5% to 15% ethanol by volume. The Proposed Amendments do not change that, as discussed above. Therefore, it can be seen with certainty that there is no possibility that the Proposed Amendments may result in any significant adverse impact on the environment, since they would not alter the environment beyond the existing environmental conditions. Furthermore, as explained in the "Analysis" section above, even if E15 sales (which are already authorized under existing law) were improperly attributed to the Proposed Amendments, based on available information, there is no potential for significant environmental impacts from E15 sales and use in California.

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[23] See DTSC's Recommendation on E15 Multimedia Evaluation, included in in CARB. (2025c, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix B. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_B_MMWG_Agency_Evaluations_12-11-2025.pdf*.

## D. Categorical Exemptions

As discussed above, the Proposed Amendments are exempt from CEQA under the "common sense" exemption. However, even if that exemption did not apply, the Proposed Amendments would also be exempt from CEQA under several categorical exemptions. Under CEQA, certain classes or categories of projects are exempt from environmental review unless an exception applies. (Cal. Code Regs., tit. 14, § 15300.2.)

A categorical exemption may not be used where there is a reasonable possibility that the activity will result in a significant effect due to unusual circumstances, contribute to a cumulatively significant impact, affect a scenic highway, be located on a hazardous waste site, or cause substantial adverse changes to historical resources. CARB has considered the applicability of these exceptions to the use of exemptions and finds that substantial evidence in the record supports a determination that none apply to the project. As explained below, each exemption is supported by substantial evidence and would reasonably apply to the project, such that no further environmental review is required.

### 1. Class 1 Categorical Exemption – Existing Facilities

As discussed above, the retail sale of E15 is already allowed pursuant to AB 30, and the Proposed Amendments would not drive any distribution or retail facility or equipment modifications as such modifications would already take place under the "existing conditions" baseline. However, even if such modifications were attributable to the Proposed Amendments, the amendments would be exempt from CEQA under the Class 1 categorical exemption, applying to "the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use." (Cal. Code Regs., tit. 14, § 15301.) The Proposed Amendments would not result in any significant adverse impacts on the physical environment or alter the use of existing public or private structures or facilities. Under the baseline conditions, some retail facilities may choose to undertake some equipment and facility modifications connected with the handling and sale of E15. Such modifications would be expected to take place within the current footprint of built facilities (retail outlet or fuel distribution terminal) or future areas that would have been developed regardless of the Proposed Amendments. The Proposed Amendments are not expected to result in any new ground disturbances beyond previously-disturbed, built areas. Therefore, the Proposed Amendments are exempt as a minor alteration of existing facilities. (Cal. Code Regs., tit. 14, § 15301.)

Here, the lead agency has considered the exceptions to categorical exemptions under California Code of Regulations, tit. 14, section 15300.2, and finds that substantial evidence in the record supports a determination that none apply. The Proposed Amendments do not involve unusual circumstances, significant cumulative impacts, or other conditions that would preclude use of the Class 1 exemption. Therefore, there is substantial evidence in the record to support a finding that the Class 1 categorical exemption (Cal. Code Regs., tit. 14, § 15301) applies because any E15-related changes (which are happening as part of the existing conditions baseline, as discussed above) consist of minor alterations to existing facilities with no potential for significant environmental effects. Accordingly, it would be reasonable for the lead agency to conclude that the Proposed Amendments are exempt under this provision, and that no further environmental review is required.

### 2. Class 2 Categorical Exemption – Replacement or Reconstruction

As discussed above, the retail sale of E15 is already allowed pursuant to AB 30, and the Proposed Amendments would not drive any distribution or retail facility or equipment modifications as such modifications would already take place under the “existing conditions” baseline. However, even if such modifications were attributable to the Proposed Amendments, the amendments would be exempt from CEQA under the Class 2 categorical exemption, applying to “replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.” (Cal. Code Regs., tit. 14, § 15302.) The Proposed Amendments would not result in any significant adverse impacts on the physical environment or alter the use of existing public or private structures or facilities. If gasoline retailers choose to sell E15 it is anticipated that any changes driven by their decision would only affect facilities within the current footprint of built facilities (retail outlets, fuel distribution terminals) or future areas that would have been developed regardless of the Proposed Amendments. The Proposed Amendments would not result in any new offsite ground disturbances. Therefore, the Proposed Amendments are exempt to the extent that they result in replacement or reconstruction of existing structures (Cal. Code Regs., tit. 14, § 15302) – potential actions which, again, are attributable to the existing conditions baseline rather than the Proposed Amendments.

Here, the lead agency has considered the exceptions to categorical exemptions under California Code of Regulations, tit. 14, section 15300.2, and finds that substantial evidence in the record supports a determination that none apply. The Proposed Amendments do not involve unusual circumstances, significant cumulative impacts, or other conditions that would preclude use of the Class 2 exemption. Therefore, there is substantial evidence in the record to support a finding that the Class 2 categorical exemption (Cal. Code Regs., tit. 14, § 15302) applies because any equipment or facility changes would consist of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, with no potential for significant environmental effects. Accordingly, the Proposed Amendments are exempt under this provision and no further environmental review is required.

### 3. Class 3 Categorical Exemption – New Construction or Conversion of Small Structures

As discussed above, the retail sale of E15 is already allowed pursuant to AB 30, and the Proposed Amendments would not drive any distribution or retail facility or equipment modifications as such modifications would already take place under the “existing conditions” baseline. However, even if such modifications were attributable to the Proposed Amendments, the amendments would be exempt from CEQA under the Class 3 categorical exemption, applying to “construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another.” (Cal. Code Regs., tit. 14, § 15303.) The Proposed Amendments would not result in any significant adverse impacts on the physical environment or alter the use of existing public or private structures or facilities. If gasoline retailers choose to sell E15 it is anticipated that any changes driven by their decision would only affect facilities within the current footprint of built facilities (retail outlets, fuel distribution terminals) or future areas that would have been developed regardless of the Proposed Amendments. The Proposed Amendments would not result in any new offsite ground disturbances. Therefore, the Proposed Amendments are exempt to the extent that they result in new construction or conversion of small structures (Cal. Code Regs., tit. 14, § 15303) – potential actions which, again, are attributable to the existing conditions baseline rather than the Proposed Amendments.

Here, the lead agency has considered the exceptions to categorical exemptions under California Code of Regulations, tit. 14, section 15300.2, and finds that substantial evidence in the record supports a determination that none apply. The Proposed Amendments do not involve unusual circumstances, significant cumulative impacts, or other conditions that would preclude use of the Class 3 exemption. Therefore, there is substantial evidence in the record to support a finding that the Class 3 categorical exemption (Cal. Code Regs., tit. 14, § 15303) applies because any equipment or facility changes would consist of new construction or conversion of small structures and equipment with no potential for significant environmental effects. Accordingly, the Proposed Amendments are exempt under this provision and no further environmental review is required.

### 4. Class 8 Categorical Exemption—Actions by Regulatory Agencies for the Protection of the Environmental

CARB has determined that the Proposed Amendments are categorically exempt from CEQA under the “Class 8” exemption (Cal. Code Regs., tit. 14, § 15308) because it is an action taken by a regulatory agency for the protection of the environment. The *Draft California Transportation Fuels Transition Plan May 1st, 2026* (CEC/CARB, 2026) provides California with several possible paths forward to maintain a reliable and affordable fuel supply that also prioritizes California’s health, community, and environmental needs. This Plan identified increased blending of E15 as a Fossil Demand Reduction Strategy. CARB adopts fuel specifications to achieve emission reductions that support attainment of the state ambient air quality standards at the earliest practicable date. The Proposed Amendments would not result in any significant adverse impacts on the physical environment or alter the use of existing public or private structures or facilities. The Proposed Amendments will only apply to facilities subject to the current Regulation who voluntarily choose to offer E15 as a product. As noted above, any physical changes to facilities or equipment would be driven by existing law (AB 30) rather than the Proposed Amendments and would occur within the current footprint of built facilities or future areas that would have been developed regardless of the Proposed Amendments. The Proposed Amendments provide regulatory guidance for fuel producers, distributors and retailers regarding how E15 may be offered in addition to the current E10 blend. The Proposed Amendments would not result in any new offsite ground disturbances, nor would they result in disturbance of any onsite previously-undisturbed soils.

## E. Determination

For the foregoing reasons, there is substantial evidence in the record to support a finding by CARB, as the lead agency under CEQA, that the Proposed Amendments are exempt from CEQA. The Proposed Amendments are exempt under the “common sense” exemption, as well as under several categorical exemptions identified in the CEQA Guidelines, including section 15301 (Class 1 – Existing Facilities), section 15302 (Class 2 – Replacement or Reconstruction), section 15303 (Class 3 – New Construction or Conversion of Small Structures), and section 15308 (Class 8 – Environmental Protection). The administrative record generally reflects that the Proposed Amendments comply with each exemption independently and separately, and this ISOR provides a sufficient basis for CEQA compliance. Substantial evidence demonstrates that the Proposed Amendments would not result in any potentially significant impacts compared to the existing conditions baseline under CEQA following the enactment of AB 30. Accordingly, the Proposed Amendments are exempt from CEQA.

# VII. Environmental Justice

State law defines environmental justice as the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Gov. Code, § 65040.12, subd. (e)(1)). Environmental justice includes, but is not limited to, all of the following: (A) The availability of a healthy environment for all people. (B) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities. (C) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process. (D) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions (Gov. Code, § 65040.12, subd. (e)(2)). The Board approved its Environmental Justice Policies and Actions (Policies) on December 13, 2001, to establish a framework for incorporating environmental justice into CARB's programs consistent with the directives of State law. These policies apply to all communities in California, but are intended to address the disproportionate environmental exposure burden borne by low-income communities and communities of color. Environmental justice is one of CARB’s core values and fundamental to achieving its mission.

California’s gasoline CaRFG regulations set fuel standards to protect the public from vehicle emissions by setting limits on sulfur, benzene, aromatics, oxygenate, vapor pressure and other compounds. The Proposed Amendments support retail sellers’ voluntary efforts to provide E15 fuel. The Proposed Amendments establish E15 fuel specifications in addition to the current specifications for E10.

Based on the UC Riverside exhaust emissions testing (UC Riverside, 2022), completed as part of the E15 MME, comparing emissions of E15 to E10, E15 shows an 18% reduction in exhaust emissions of particulate matter, a 17% reduction in exhaust emissions of carbon monoxide, a

5% reduction in exhaust emissions total hydrocarbons, and a slight reduction in exhaust emissions of nitrogen oxides, but not statistically significant. As such, reducing emissions resulting from fuel combustion brings benefits to the State including areas of the State where communities have been disproportionately impacted by poor air quality due to transportation impacts. Voluntary sales of E15 will provide additional air quality benefits to those realized from the CaRFG regulations currently in place. In addition to localized and criteria air pollutant benefits, the increased use of ethanol in gasoline replaces a portion of the fossil-based gasoline, which reduces GHG emissions as the carbon intensity of fuels is reduced.

Subsequent to CARB's October 14, 2025, Scoping Workshop, comment letters were received from community-based organizations and other entities supporting the authorization of E15 while cautioning against mandating that E15 replace E10.[24]

# VIII. Economic Impact Assessment

On October 2, 2025, Governor Newsom signed AB 30, which authorized the immediate sale of E15 in California. Notably, AB 30 does not mandate the sales of E15, but rather allows retail sellers the voluntary option to sell E15. Should retail outlets choose to sell E15, equipment upgrades and related costs would be required, however these are voluntary costs not required or a result of the Proposed Amendments. In the interest of public information and transparency, Appendix B provides a general analysis of potential cost estimates related to varying levels of E15 penetration in retail sales as authorized by AB 30.

## A. The creation or elimination of jobs within the State of California.

There is no anticipated impact on job creation or elimination due to the Proposed Amendments as AB 30 has already authorized the sale of E15.

## B. The creation of new business or the elimination of existing businesses within the State of California.

There is no anticipated impact on business creation or elimination due to the Proposed Amendments as AB 30 has already authorized the sale of E15.

## C. The expansion of businesses currently doing business within the State of California.

There is no anticipated impact on expansion of businesses due to the Proposed Amendments as AB 30 has already authorized the sale of E15.

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[24] See comments submitted on CARB's *Scoping Workshop on E15 Use in California*, available at *https://ww2.arb.ca.gov/approved-comments?entity_id=45886* and *https://ww2.arb.ca.gov/events/scoping-workshop-e15-use-california*.

### D. Significant Statewide Adverse Economic Impact Directly Affecting Business, Including Ability to Compete

There is no anticipated significant statewide adverse economic impact directly affecting business, including the ability to compete, due to the Proposed Amendments as AB 30 has already authorized the sale of E15.

### E. The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment

There are no anticipated benefits of the regulation to the health and welfare of California residents, worker safety, and the State's environment due to the Proposed Amendments as AB 30 has already authorized the sale of E15.

## IX. Evaluation of Regulatory Alternatives

Government Code section 11346.2, subdivision (b)(4) requires CARB to consider and evaluate reasonable alternatives to the proposed regulatory action and provide reasons for rejecting those alternatives. This section discusses alternatives evaluated and provides reasons why these alternatives were not included in the proposal. As explained below, no alternative proposed was found to be less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing law. The Board has not identified any reasonable alternatives that would lessen any adverse impact on small business.

### A. Alternative 1: Take no action

Take no action. As AB 30 authorized the sales of E15 and does not direct or set a deadline for CARB to act, CARB could take no further action on proposing E15 fuel specifications and E15 could continue to be sold. The Proposed Amendments add fuel specifications for E15 to the CaRFG regulations. Alternative 1 was rejected because without adopting regulatory E15 specifications, fuel producers and importers would lack necessary regulatory clarification on which standards and associated requirements apply to the sale of E15 in the State.

### B. Alternative 2: Mandate E15 and Prohibit E10

Alternative 2 would mandate, to the extent consistent with feasibility limitations, only E15, and eventually potentially prohibit E10 in the State. E10 currently comprises 100% of gasoline sales in the State for transportation fuel. This alternative could, to the extent consistent with feasibility limitations, eventually require all 10,469[25] gasoline retail outlets (CEC, 2026) and 59 terminals (CEC, 2019) to provide E15 and assumes a five-year time frame for full implementation beginning in 2027, as compared to the Proposed Amendments which preserve flexibility for retail outlets and terminals to voluntarily sell E15. Under Alternative 2, to the extent consistent with feasibility limitations, all retail outlets would have to undertake upgrades

[25] CARB staff calculation based on CEC 2024 annual estimates adjusted for response rates.

to ensure compatibility with E15. This alternative would likely result in costs to upgrade other infrastructure elements including terminals that provide fuel to retail stations, as additional ethanol would need to be brought into the terminal and stored onsite to blend into the gasoline. Alternative 2 was rejected partly due to feasibility challenges. E15 is federally prohibited from being used in gasoline powered lawn equipment, motorcycles, recreational watercraft, heavy duty trucks, and 2000 and older MY passenger vehicles. There are approximately 21,387,000[26] such vehicles, vessels, and equipment in California. Accommodating these prohibitions as part of this alternative would require ensuring that E10 would be adequately available so that the listed engines in the aforementioned vehicles and equipment could be used or operated as needed in California. Designing and implementing a general E15 optimization policy in a way that would effectively ensure this needed E10 availability for specific fuel uses would present significant feasibility challenges. In addition, as shown by staff's estimates of potential costs, encouraging E15-only sales consistent with feasibility limitations could result in high costs for retail outlets and terminals.

Benefits:

Potential benefits to California of mandating E15, to the extent consistent with feasibility limitations, could include decreases in the lifecycle carbon intensity of transportation fuels, increased displacement of petroleum-based fuel components, and increased transportation fuel supply. The 2022 Scoping Plan identifies increased deployment of low carbon fuels to bring forth emissions reductions as critical strategies to reduce emissions from the transportation sector. Reducing combustion emissions from the transportation sector is projected to reduce GHG emissions, $NO_x$ emissions, and particulate matter emissions (CARB, 2022). Due to the relative increase in the proportion of ethanol in gasoline, ethanol producers could financially benefit.

Details of Benefits:

Under the LCFS program, fuels that have a lower carbon intensity (CI) than the annual benchmark generate LCFS credits. Providers of transportation fuels must demonstrate that the mix of fuels they supply for use in California meets the LCFS carbon intensity standards, or benchmarks. LCFS credits can be monetized through independent market transactions. The potential value or benefit of additional LCFS credits generated through additional E15 sales cannot be predicted; however, a general basis for understanding additional value that could be created is described in Appendix B of this document. The calculations are generally based on the additional ethanol in E15 displacing a portion of CARBOB with lower CI ethanol within each gallon of gasoline, reducing the CI of E15 as compared to E10.

The Renewable Fuel Standard (RFS) is a federal program that requires transportation fuel sold in the United States to contain a minimum volume of renewable fuels. Under the RFS program, each gallon of ethanol generates one D6 Renewable Identification Number (RIN). Because E15 may contain 5% more ethanol than E10 by volume, each

[26] CARB, Scoping Workshop on E15 Uses in California, October 14, 2025.

gallon of E15 could generate 0.05 more RINs than a gallon of E10. Therefore, there could be an RFS benefit of switching from E10 to E15. Staff's methodology for estimating potential RIN benefits is provided in Appendix B.

Table 1 shows a range of potential annual benefits based on the historical LCFS credit prices from 2013 through May of 2026 of the lowest and midpoint value (CARB, 2026) and the lowest and midpoint RIN credit prices from 2020 through May of 2026 (U.S. EPA, 2026) in conjunction with the 13.3 billion gallons of gasoline (E10) that were sold in the State in 2025 (CDTFA, 2026) over the first three years of a five-year full implementation time frame, and assumes the rate of implementation to be 15%–Year 1, additional 15%–Year 2, and additional 20% in Year 3. This implementation scenario is a very general estimate offered to approximate costs. It is inherently uncertain because it involves conducting estimates and speculative projections around what may happen in the future. It also does not purport to forecast the value of future LCFS or RIN credit prices. Due to forecast uncertainty, CARB cannot predict actual LCFS or RIN credit values and is using a base set of assumptions for this analysis. CARB makes no assumption on whether any credit generation benefit would be passed along to the consumer.

Table 1. Potential LCFS and RFS Annual Benefits to Ethanol Producers*

| Program | Credit Price | 2027 | 2028 | 2029 | 3 Year Total |
|---|---|---|---|---|---|
| LCFS | $22 | $12,000,000 | $12,000,000 | $16,000,000 | $40,000,000 |
| LCFS | $115 | $62,000,000 | $62,000,000 | $82,000,000 | $206,000,000 |
| RFS | $0.05 | $5,000,000 | $5,000,000 | $6,700,000 | $16,700,000 |
| RFS | $1.08 | $108,000,000 | $108,000,000 | $144,000,000 | $360,000,000 |

*Values are illustrative estimates and have been rounded.

Table 2 indicates the estimated number of retail outlets in California based on CEC data at the end of year 2024.[27] Terminals are actual and not estimated (CEC 2019).

Table 2. Number of Businesses

| Category | Number of Businesses |
|---|---|
| Retail Outlets | 10,469 |
| Terminals | 59 |

Costs:

Based on CARB staff's methodology described in Appendix B, this alternative could potentially lead to costs to the 10,469 retail outlets and 59 terminals of over $600 million to upgrade infrastructure for E15 sales over the first three years of a five-year full implementation time frame, and assumes the rate of upgrade implementation to be roughly 15%–Year 1, additional 15%–Year 2, and additional 20% in Year 3 (Table 3). This implementation scenario is a very general estimate offered to approximate costs

[27] CARB staff calculation based on CEC 2024 annual estimates adjusted for response rates.

and assumes 50% of stations upgrade in the first three years under a medium conversion scenario (USDA, 2022) inflation adjusted to $110,000 in 2025$ (CDIR, 2026) where some existing equipment is already E15 compliant. As described in Appendix B, staff relied on national information to estimate potential retail outlet equipment costs but recognize that costs outside of California may not be directly comparable as California requires specific certification and has State-specific laws applying to retail outlets. Staff estimate the cost of terminal upgrades could be $2,200,000 based on $1,512,000 per terminal in 2012$ (Stillwater, 2012) inflation adjusted to 2025$ (CDIR, 2026). Terminal costs here assume the same implementation rates over a 3-year time frame; however, terminal upgrades may follow a different schedule to provide E15 availability across the State geographically.

Table 3. Details of Potential Costs*

| Potential Cost Estimate | 2027<br>≈15% Upgraded | 2028<br>≈ +15% Upgraded | 2029<br>≈ +20% Upgraded | 3-Year Total |
|---|---|---|---|---|
| Per Outlet Cost | 1570 Outlets | 1570 Outlets | 2090 Outlets | 5230 |
| $110,000 | $172,700,000 | $172,700,000 | $229,900,000 | $575,300,000 |
| Per Terminal Cost | 9 Terminals | 9 Terminals | 12 Terminals | 30 |
| $2,200,000 | $19,800,000 | $19,800,000 | $26,400,000 | $66,000,000 |

*Values are illustrative estimates and have been rounded.

## C. Small Business Alternative

The Board has not identified any reasonable alternatives that would lessen any adverse impact on small businesses.

## D. Performance Standards in Place of Prescriptive Standards

Government Code section 11346.2(b)(4)(A) requires that when CARB proposes a regulation that would mandate the use of specific technologies or equipment, or prescribe specific actions or procedures, it must consider performance standards as an alternative. In addition, Government Code section 11346.2(b)(1) requires that when a proposed regulation would mandate the use of specific technologies or equipment, CARB includes in the ISOR a statement of the reasons why the agency believes these mandates or prescriptive standards are required. If the proposed regulation contains prescriptive standards, both must be included here. Because the Proposed Amendments do not mandate the use of specific technologies or equipment, nor contain prescriptive standards, these Government Code requirements are not applicable.

## E. Health and Safety Code section 57005 Major Regulation Alternatives

The proposed regulation will not result in a total economic impact on State businesses of more than $10 million in one or more years of implementation. Therefore, this proposal is not a major regulation as defined by Health and Safety Code section 57005.

## X. Justification for Adoption of Regulations Different from Federal Regulations Contained in the Code of Federal Regulations

Federal regulations allow the sales of E15 across all states. AB 30 allowed the immediate sale of E15 in California. However, 40 C.F.R. part 1090.215 requires that gasoline designated as California gasoline or used in areas subject to the California reformulated gasoline regulations must comply with those regulations under Title 13, California Code of Regulations, sections 2250-2273.5. The Proposed Amendments will add the specifications of E15 within the California Code of Regulations sections 2250-2273.5 which will align with the federal regulations. Therefore, there will not be the adoption of regulations different from federal regulations.

## XI. Public Process for Development of the Proposed Action (Pre-Regulatory Information)

Consistent with Government Code section 11346, subdivision (b), and section 11346.45, subdivision (a), and with the Board's long-standing practice, CARB staff held a public workshop and had other meetings with interested parties during the development of the proposed regulation. These informal pre-rulemaking discussions provided staff with useful information that was considered during development of the regulation that is now being proposed for formal public comment.

## XII. Documents Relied Upon


CARB. (2026). Monthly LCFS Credit Price and Transaction Volume. Figure 4. Accessed May 4, 2026. *https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard*

CARB. (2025a, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. *https://ww2.arb.ca.gov/sites/default/files/2025-12/E15_MMWG_Staff_Written_Summary_Final_12-11-2025.pdf*

CARB. (2025b, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix A. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_A_MME_Tier_III_Report_with_Tier_I_and_Tier_II_12-11-2025.pdf*

CARB. (2025c, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix B. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_B_MMWG_Agency_Evaluations_12-11-2025.pdf*

CARB. (2025d, December). California Multimedia Evaluation of Gasoline Containing up to 15 Percent Ethanol (E15): Staff Written Summary. Appendix C. *https://ww2.arb.ca.gov/sites/default/files/2025-12/Appendix_C_Peer_Review_Comments_and_MMWG_Response_12-11-2025.pdf*

CARB. (2022, December). 2022 Scoping Plan for Achieving Carbon Neutrality. *https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf*

California Department of Industrial Relations (CDIR). (2026, February). California Consumer Price Index chart (1955–2025). (Accessed March 9, 2026) *https://www.dir.ca.gov/oprl/CPI/EntireCCPI.PDF*

California Department of Tax and Fee Administration (CDTFA). (2026). Motor vehicle fuel 10-year report results. (Accessed February 25, 2026) *https://cdtfa.ca.gov/taxes-and-fees/MVF-10-Year-Report.xlsx*

California Energy Commission (CEC). (2026). California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. (Accessed February 20, 2026) *https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting*

CEC. (2019). Oil refineries and terminals. (Accessed March 6, 2026) *https://hub.arcgis.com/datasets/CalEMA::ca-energy-commission-oil-refineries-and-terminals/explore?filters=eyJUeXBlXyI6WyJUZXJtaW5hbCJdfQ%3D%3D&location=35.353719%2C-118.683114%2C6*

CEC/CARB. (2026). May 2026. Draft California Transportation Fuels Transition Plan (No direct web link. PDF available)

Stillwater Associates LLC. (2012, October 17). The Cost of Introducing an Intermediate Blend Ethanol Fuel for 2017 -and-Later Vehicles. *https://downloads.regulations.gov/EPA-HQ-OAR-2011-0135-4681/attachment_5.pdf*

University of California, Riverside. (2022, June). Comparison of Exhaust Emissions between E10 CaRFG and Splash-blended E15.*https://ww2.arb.ca.gov/sites/default/files/2022-07/E15_Final_Report_7-14-22_0.pdf*

U.S. EPA. (2026a). RIN Trades and Price Information. (Accessed May 4, 2026) *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information*

U.S. EPA. (2026b). March. 2026. Regulatory Impact Analysis. Renewable Fuel Standard (RFS) Program: Standards for 2026 and 2027, Partial Waiver of 2025 Cellulosic Biofuel Volume Requirement, and Other Changes. *https://www.epa.gov/system/files/documents/2026-03/420r26011.pdf*

# XIII. Appendices

Appendix A-1: Proposed Regulation Order

Appendix A-2: Proposed Regulation Order (Accessible Format)

Appendix B: Supplemental Analysis on Costs and Benefits of Expanded E15 Availability, as Authorized by AB 30