

UPDATED INFORMATIVE DIGEST

REGULATION ON THE COMMERCIALIZATION OF ALTERNATIVE DIESEL FUELS

Sections Affected: This action amends sections 2290, 2291, and 2293, title 13, California Code of Regulations (CCR); renumbers sections 2293 to 2294 and renumbers section 2293.5 to 2295, title 13, CCR; and adds sections 2293, 2293.1, 2293.2, 2293.3, 2293.4, 2293.5, 2293.6, 2293.7, 2293.8, 2293.9, and Appendix 1, title 13, CCR.

This action also regroups existing sections 2290, 2291, 2292.1, 2292.2, 2292.3, 2292.4, 2292.5, 2292.6, and 2292.7 under new subarticle 1 (Specifications for Current Alternative Motor Vehicle Fuels). Renumbered sections 2294 and 2295 are grouped under a new subarticle 3 (Ancillary Provisions). New sections 2293, 2293.1, 2293.2, 2293.3, 2293.4, 2293.5, 2293.6, 2293.7, 2293.8, 2293.9 and Appendix 1 are grouped under a new subarticle 2 (Commercialization of Alternative Diesel Fuels).

Background:

The Low Carbon Fuel Standard (LCFS) (Cal. Code Regs., tit. 17, §95480 et seq.) and the federal Renewable Fuels Standard (RFS) (Clean Air Act §211(o), 42 U.S.C. §7545(o)) both incentivize the expansion of the California transportation fuel pool to include more renewable and low carbon replacements for conventional motor vehicle gasoline and diesel. Existing California and federal laws authorize the California Air Resources Board (ARB or Board) to regulate fuels, including for the purpose of controlling motor vehicle emissions. (Health & Saf. Code §43013, Clean Air Act §211(c)(o) and (t) [42 U.S.C. §7545(c)(o) and (t)].) Furthermore, title 13, CCR sections 2281 through 2285, impose fuel quality standards on conventional motor vehicle diesel fuel to limit both sulfur and aromatic hydrocarbon content.

Existing law allows use of alternative diesel fuels such as biodiesel in California, and the LCFS, RFS, and other policies and programs will encourage further innovations in fuels. Some of these innovative fuels are already sold commercially and controlled through industry consensus standards that are implemented by the California Department of Food and Agriculture. Such fuels-related industry consensus standards seek mainly to address vehicle performance and fuel production quality issues. On the other hand, air quality impacts from alternative diesel fuels are generally addressed by ARB or the U.S. Environmental Protection Agency, although both agencies also rely heavily on fuels-related industry consensus standards that addressed air quality or other environmental impacts.

The current California diesel fuel regulations focus almost entirely on petroleum hydrocarbon-based fuels for compression ignition engines. Because of the focus on petroleum fuels, the existing diesel regulations are ill-suited to providing a market pathway for innovative non-hydrocarbon-based alternative diesel fuels (e.g., biodiesel, dimethyl ether) and for ensuring that the anticipated air quality benefits from ARB's

existing specifications for California diesel (“CARB diesel”) are preserved as new alternative diesel fuels enter the market.

Description of the Regulatory Action:

The ADF regulation establishes a comprehensive, multi-stage process governing the commercialization of new ADFs in California. This process would start with a screening analysis that would allow limited sales of a regulated diesel substitute while it undergoes an initial evaluation; an intermediate stage with expanded sales governed by enhanced monitoring, testing, and a multimedia evaluation; and a final stage with full-scale commercial sales and provisions designed to maintain environmental and public health protections as needed.

The main benefit to the State is to provide and maintain safeguards that protect public health and the environment while such new fuels are being tested and used. The regulation also benefits the State by providing a framework and clear rules that, in turn, will encourage the more rapid introduction of innovative fuels with demonstrated public health advantages. Many of the innovative fuels under development have lower emissions of greenhouse gases (GHG) and criteria and toxic air pollutants, and a number of such fuels can also be produced from renewable or waste sources. The Alternative Diesel Fuel regulation also has the benefit of ensuring NOx emissions from biodiesel do not increase, and over time will decrease.

ARB released a staff report entitled “Proposed Regulation on the Commercialization of Alternative Diesel Fuels” on December 30, 2014 and accepted public comments on the proposal beginning January 2, 2015. At a February 19, 2015 public hearing, the Board adopted Resolution 15-5, which, among other things, directed the Executive Officer to determine whether additional modifications to the regulation were appropriate and to make any proposed modified regulatory language available for public comment, with any additional supporting documents and information, for a period of at least 15 days in accordance with Government Code section 11346.8.

Staff made modified regulatory text and additional documents for the rulemaking file available starting May 22, 2015 for a supplemental comment period ending June 8, 2015, by issuance of a Notice of Public Availability of Modified Text (15-day Notice or Notice) and supporting documents. Five written letters were received. On September 24 and 25, 2015, staff brought the modified ADF proposal back to the Board for consideration, along with responses to comments on the regulation, responses to environmental comments, and the final Environmental Analysis. The Board conducted another public hearing, accepted further public comment and testimony on the proposed regulation and the Environmental Analysis, and received staff’s written responses to the additional comments and testimony.

On September 25, 2015, the Board approved Resolution 15-51 to approve responses to environmental comments and to certify the Environmental Analysis. The Board also approved Resolution 15-41 to adopt the ADF regulation as modified and to adopt Findings and Statement of Overriding Considerations. As part of Resolution 15-41, the

Board directed staff to make any nonsubstantial or solely grammatical changes in the regulation as may be warranted and submit the adopted ADF regulation and related documents to the Office of Administrative Law. All comments received have been responded to in the Final Statement of Reasons and in written responses to comments on the Environmental Analysis.

Summary of Modifications to the Original Proposal

Various modifications to the original proposal were made to address comments received during the 45-day public comment period, and to clarify the regulatory language. A description and rationale for the modifications of substance to the regulation as released on December 30, 2014 are set forth below.

A. Modifications to Definitions (section 2293.2)

1. "Biodiesel Blend" was modified for consistency with definitions in the Low Carbon Fuel Standard.
2. "Diesel Substitute" was deleted because the term is no longer used in the regulation.
3. "Fuel Blender" definition was added to the regulation.
4. "Multimedia Evaluation Guidance Document" was deleted, including the incorporation by reference of chapters 5, 6, and 7 of the document, to reflect modifications in section 2293.5(b)(5).
5. "Non-ester Renewable Diesel" was deleted from the regulation and replaced with a definition for "Renewable Hydrocarbon Diesel."
6. "Renewable Hydrocarbon Diesel" was added to the regulation replacing "Non-ester Renewable Diesel."
7. "Alternative diesel fuel" was modified with formatting changes.
8. "CARB Diesel" definition was modified to reflect the deletion from the regulation of the definition for "Non-ester Renewable Diesel" and the addition of "Renewable Hydrocarbon Diesel."
9. "Hydrocarbon" was modified to make it a more accurate definition.
10. "Multimedia Evaluation" was modified to reference *California* Health and Safety Code.
11. "Offsetting Factors" was modified to reflect the deletion of the "Diesel Substitute" definition.
12. "Person" was modified to reference *California* Health and Safety Code.
13. "Producer" was modified to correct a reference.
14. "Reference CARB Diesel" was modified for consistency with other definitions.
15. "Toxic Air Contaminant" was modified to reference *California* Health and Safety Code.
16. "Trade Secret" was modified to reference *California* Government Code.
17. Definitions were renumbered consistent with the changes to this section.

B. Modifications to Phase-In Requirements (section 2293.5)

1. Throughout section 2293.5, language was added to clarify that all references to a number of "days" will be "business days."
2. In sections 2293.5(a)(1)(B) and 2293.5(b)(1)(B), engine certification levels and

vehicle types were added to the list of information required to be submitted in Stage 1 and Stage 2 applications.

3. In section 2293.5(a)(1)(J), information about environmental effects was added to the list of information required to be submitted with the application.
4. In section 2293.5(a)(3)(A) and 2293.5(b)(3)(A), language was added to include impacts to public health or the environment as comments to be considered by the Executive Officer.
5. In section 2293.5(a)(3)(A), the 15 business days allowed for public comments was changed to 30 business days to make Stage 1 and 2 process consistent.
6. In section 2293.5(a)(3)(C) and 2293.5(b)(3)(C), language was modified to establish a more objective standard for risk, and language was added to include significant adverse environmental impacts as a reason for disproving a proposed pilot program.
7. In section 2293.5(a)(4)(B) and section 2293.5(b)(4)(B), language was modified to clarify that the Executive Officer has the ability to terminate or modify an EO for any of, not a combination of, the described reasons.
8. In section 2293.5(b)(2)(C), language was added to specify a deadline for Stage 2 application information submittal consistent with the requirements of Stage 1.
9. In section 2293.5(b)(5)(A), incorporation by reference of the Multimedia Evaluation Guidance Document was removed. New language was added to clarify that the multimedia evaluation must comply with California Health and Safety Code section 43830.8. Subsections 1, 2, 3, and 4 were added to include the necessary elements of a multimedia evaluation. This modification establishes the required components of a multimedia evaluation for the purposes of this regulation without the need to incorporate by reference the Multimedia Evaluation Guidance.
10. In section 2293.5(b)(5)(B), language was added to clarify the role of the Executive Officer and multimedia workgroup in determining baselines for purposes of the multimedia evaluations. Language was added to specify the impacts that must be addressed by the multimedia evaluation. Additional modifications were made for further clarification.
11. Original section 2293.5(b)(5)(D) was deleted as the requirement to comply with Health and Safety Code section 43830.8 was added to section 2293.5(b)(5)(A); previously un-numbered text was numbered as section 2293.5(b)(5)(D), language was corrected to reflect the intent that the Executive Officer shall make determinations on detrimental impacts to ambient air quality, and modifications were made to improve clarity.
12. Section 2293.5(b)(6)(A)(5) was added to clarify that ADF applicants may be required to provide information that ARB needs to evaluate environmental impacts from commercial sales of the fuel .
13. In section 2293.5(b)(6)(B), language was modified to correct references and clarify intent. Additionally, language was deleted to clarify the intent that a Stage 2 producer does not automatically move to Stage 3A production.
14. The title of section 2293.5(c) has been modified to reflect that this section addresses both Stages 3A and 3B.
15. In section 2293.5(d), language was added to clarify that an Executive Order will be

issued for a Stage 3B fuel and that the Executive Officer may add conditions to the EO to avoid detrimental environmental impacts. The reporting requirements for Stage 3B were moved to section 2293.8, references were corrected, and language was inserted to clarify that the reporting and recordkeeping requirements described in section 2293.8 are required of Stage 3B fuels.

C. Modifications to In-Use Requirements for Specific ADFs Subject to Stage 3A (section 2293.6)

1. Introductory text was modified to mirror the introductory text of section 2293.7.
2. Throughout section 2293.6, language was added to clarify that all references to a number of “days” will be “business days”.
3. In section 2293.6(a)(3), ASTM methods D7170-14 (2014) and D7668-14a (2014) were added as test methods (section 2293.6(a)(3)(C) and (D)) and incorporated by reference into the regulation. Table A.2 was modified to reflect these additions.
4. Section 2293.6(a)(4)(B) was added to detail ARB’s procedure for removing and notifying the public on the sunset of the in-use provisions for biodiesel.
5. Sections 2293.6(a)(5)(A) and (B) were deleted to avoid redundancy.
6. Section 2293.6(a)(5)(C) was renumbered to (A) and was titled *Fleet Exemption* and text was added to clarify the requirements of the demonstration that a fleet must make to be eligible for this exemption. A requirement to submit all documentation to support the exemption claim was added. Subsections 1, 2, and 3 were modified to reflect these changes.
7. Section 2293.6(a)(5)(B) is new text. This new text clarifies that certain retail fueling stations are eligible for an exemption from the in-use requirements of section 2293.6(a)(2). The exemption is for retail fueling stations that can provide sufficient information to the Executive Officer that the customer base for the fuel sales of B6-B20 is at least 90 percent light and medium duty vehicles (GVWR ≤14,500lbs) or heavy-duty new technology diesel engines (NTDE).
8. Section 2293.6(a)(5)(C) was added to provide an exemption for producers or importers who are disproportionately impacted by restrictions on B6 to B20 sales. The exemption allows sales of B6 to B20 to be exempted from the in-use requirements as long as the fuel is supplied to fleets that do not operate heavy duty non-NTDE vehicles in the South Coast or San Joaquin Air Basins except during a declared state of emergency. Applications for this exemption must be submitted by January 1, 2017 and are limited to those producers or importers that sold a minimum of 750,000 gallons of B100 fuel in 2014, of which at least 40 percent was ultimately sold as B6 to B20 blends. This exemption could result in additional air quality impacts, which are described in the 15-day notice dated May 22, 2015 under the heading “Additional Analysis to be Added to the Record.”
9. In section 2293.6(a)(5)(D), subsection 2 was modified to reflect changes in the naming convention for the exemptions. Subsection 3 was modified to require applications to include the information required under 2293.6(a)(5)(A), (B), and (C). Subsection 4 was deleted as this text has been incorporated into section 2293.6(a)(5)(B).
10. In section 2293.6(a)(5)(F), formatting changes were made, references were

corrected, and modifications were made for clarity. Text was added to clarify that the Executive Officer may request additional information deemed necessary to determine the impact on air quality and to clarify that the EO may contain terms and provisions to ensure the exempted activities continue to meet the requirements of section 2293.6(a)(5). Additional enforcement language was added.

11. Section 2293.6(a)(5)(G) was added to specify that the exemption granted under section 2293.6(a)(5)(C) is limited to the producer's or importer's 2014 fuel volume.

D. Specifications for Alternative Diesel Fuels (section 2293.7)

1. Language was modified in the introductory text to clarify that the requirements of this section are only applicable to the specified ADFs.
2. In Table A.3, ASTM methods D7170-14 and D7668-14a were added to reflect modifications to section 2293.6(a)(3).

E. Reporting and Recordkeeping (section 2293.8)

Overall, section 2293.8 was restructured and modified to provide clarity on when and what information is required to be submitted in the quarterly reports and retained for recordkeeping purposes. The reporting requirements for Stage 3A were expanded to match the format and content of the recordkeeping requirements for Stage 3A.

1. In section 2293.8(a), sampling requirements were deleted and general reporting requirements were inserted. The general reporting requirements define the quarterly reporting periods, reporting deadlines and the general information that must be submitted with each report including year, reporting period, company name, address, contact name, phone, and email.
2. In section 2293.8(b)(1)(A), language was modified to require data to be compiled monthly instead of quarterly and by facility.
3. In section 2293.8(b)(1)(B), language was inserted to clarify that a person operating under Stage 1 or Stage 2 must report information specified under the terms of the Executive Order. The original language was deleted as testing and sampling requirements may depend on fuels, and is better addressed in EO.
4. In section 2293.8(b)(2), language in the introductory text was deleted as the requirements were reflected in the general reporting requirements in section 2293.8(a). Additionally, the reporting requirements in subsections (A)-(D) were restructured and replaced with the reporting requirements for producers, importers, and blenders described below, including Stage 3A biodiesel blends of B6 to B20:
 - a. In section 2293.8(b)(2)(A), reporting requirements were added for ADF Stage 3A producers. Stage 3 reporting requirements are applicable to biodiesel blends of B6 to B20. These requirements are in addition to the general requirements in section 2293.8(a) and include monthly production volumes by feedstock and facility, sales information, and information regarding blended ADF, if applicable.
 - b. In section 2293.8(b)(2)(B), reporting requirements were added for ADF Stage 3A importers. These requirements are in addition to the general requirements

- in section 2293.8(a) and include monthly imported volumes by feedstock or source, sales information, information regarding blended ADF, if applicable, and monthly volumes and method of NOx control for biodiesel subject to the in-use requirements.
- c. In section 2293.8(b)(2)(C), reporting requirements were added for ADF Stage 3A blenders. These requirements are in addition to the general requirements in section 2293.8(a) and include monthly volumes by feedstock purchased or obtained, fuel volumes blended, sales information, and monthly volumes and method of NOx control for biodiesel subject to the in-use requirements.
5. In section 2293.8(b)(3), introductory text was modified to clarify that producers, importers, and blenders must submit quarterly reports for ADFs in Stage 3B. Language was added to clarify that submission of data to the Low Carbon Fuel Standard's Reporting Tool is allowable; however, ARB must be notified in advance. Much of this text was moved from section 2293.5(d). Additionally, the following modifications were made:
 - a. In section 2293.8(b)(3)(A), formatting changes were made. Language was added to specify that blendstock must be reported and additional language has been modified to require data to be compiled quarterly.
 - b. In section 2293.8(b)(3)(B), sampling requirements were deleted as testing and sampling requirements may vary, depends on fuels, and is better addressed in the specific executive order approving the fuel. Volume reporting requirements of neat ADF were added.
 - c. In section 2293.8(b)(3)(C), volume reporting requirements of ADF/CARB diesel were added.
 6. Section 2293.8(c) was restructured to better reflect recordkeeping requirements specific for fuels in Stage 1, 2, 3B and 3A.
 7. In section 2293.8(c)(1), general recordkeeping requirements for all stage fuels were added including: requirements that records be made available within 15 business days of a request for access by ARB or its designee and that all quarterly reports and substantiating documentation must be maintained in accordance with the stage specific recordkeeping requirements. Original language was deleted to reflect the restructuring of this section.
 8. In section 2293.8(c)(2), specific recordkeeping requirements for Stages 1, 2, and 3B were added. The requirements state that records must be maintained for a minimum of two years and include: quarterly reports, substantiating documentation, product transfer documentation, transaction invoices, and any additional information required as a condition of the ADF Executive Order. The original language pertaining to importer recordkeeping requirements in section 2293.8(c)(2) was modified and moved into section (c)(3)(B).
 9. Section 2293.8(c)(3) was modified and restructured. The section was originally applicable to recordkeeping of biodiesel only. Staff modified the language to make it applicable for all Stage 3A ADFs and created subsections for requirements specific to biodiesel. The following Stage 3A recordkeeping requirements were added for producers, importers, blenders, distributors, and retailers:
 - a. In section 2293.8(c)(3)(A), recordkeeping requirements for producers were

- modified. The modified requirements state that records must be maintained for a minimum of five years and include: quarterly reports, substantiating documentation, product transfer documentation, and transaction invoices. Additionally, biodiesel producers must maintain records on the volume of biodiesel or biodiesel blends sold under exemption from the in-use requirements, test records that fuels meets specifications defined in section 2293.7, and monthly volumes of B100 produced or supplied to California, including method of NOx control, for biodiesel subject to the in-use requirements.
- b. In section 2293.8(c)(3)(B), recordkeeping requirements for importers were modified. The modified requirements state that records must be maintained for a minimum of five years and include: quarterly reports, substantiating documentation, product transfer documentation, and transaction invoices. Additionally, biodiesel importers must maintain records on the volume of biodiesel or biodiesel blends sold under exemption from the in-use requirements and monthly volumes of B 100 or biodiesel blends imported into California, including method of NOx control, for biodiesel subject to the in-use requirements.
 - c. In section 2293.8(c)(3)(C), recordkeeping requirements for blenders were modified. The modified requirements state that records must be maintained for a minimum of five years and include: quarterly reports, substantiating documentation, product transfer documentation, and transaction invoices. Additionally, biodiesel producers must maintain records on the volume of each biodiesel blend level, recorded as either low or high saturation, and volume of B5 level (including blends between B1 and B5). For biodiesel subject to the in-use requirements, blenders must maintain monthly volume, blend level, method of NOx control, transaction date, and purchaser information for biodiesel sold with and without NOx control. Invoices must also indicate NOx control for each transaction of B100 or biodiesel blend.
 - d. In section 2293.8(c)(3)(D), recordkeeping requirements for distributors were modified. The modified requirements state that records must be maintained for a minimum of five years and include product transfer documentation and statements on invoices indicating NOx control for each transaction of B100 or biodiesel blend that is subject to the in-use requirements.
 - e. In section 2293.8(c)(3)(E), recordkeeping requirements for retailers were modified. The modified requirements state that records must be maintained for a minimum of five years and include product transfer documentation, copy of any exemptions made pursuant to section 2293.5(a)(5), and statements on invoices indicating NOx control for each transaction of B100 or biodiesel blend that is subject to the in-use requirements.
10. Section 2293.8(c)(4) was deleted and the provisions originally in that section were incorporated into section 2293.8(c)(3).

F. Appendix 1 of Subarticle 2. In-use Requirements for Pollutant Emissions Control

- 1. The name of Appendix 1 was modified to clarify that this text is an appendix to Subarticle 2.

2. In Appendix 1(a)(2)(B)1, language was added to clarify that certification of ADF formulations may account for production processes as well as the use of different feedstocks or other innovative processes.
3. In Appendix 1(a)(2)(C) Table A.7, ASTM methods D7170-14 and D7668-14a were added.
4. In Appendix 1(a)(2)(D) Table A.8, ASTM methods D7170-14 and D7668-14a were added.
5. In Appendix 1(a)(2)(D), *virgin soybean oil* was replaced with *low saturation feedstock* as the transesterification process feedstock for certification fuel.
6. In Appendix 1(a)(2)(E) Table A.9, ASTM methods D7170-14 and D7668-14a were added.

The changes identified above were necessary to improve the clarity in the ADF regulation as adopted and to ensure the regulation would accomplish the purposes of the regulation, which include safeguards to protect public health and the environment while new fuels are being tested and used, clear rules and framework to encourage more rapid introduction of innovative fuels with demonstrated public health advantages, and biodiesel provisions to ensure NOx emissions from biodiesel do not increase and over time will decrease.

Additional Documents Added to the Record

ARB also added to the rulemaking record the following additional documents, and invited comment on those documents during the 15-day comment period commencing May 22, 2015:

1. California Environmental Protection Agency. Multimedia Working Group. *Staff Report: Multimedia Evaluation of Biodiesel*. May 2015. http://www.arb.ca.gov/fuels/diesel/altdiesel/20150521BD_StaffReport.pdf
2. California Environmental Protection Agency. Multimedia Working Group. *Staff Report: Multimedia Evaluation of Renewable Diesel*. May 2015. http://www.arb.ca.gov/fuels/diesel/altdiesel/20150521RD_StaffReport.pdf
3. ASTM D7170-14 (2014), "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Fixed Range Injection Period, Constant Volume Combustion Chamber Method." Staff is proposing to add this ASTM to the regulation by incorporation by reference.
4. ASTM D7668-14a (2014), "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method." Staff is proposing to add this ASTM to the regulation by incorporation by reference.

Changes to Underlying Laws:

There have been no changes in applicable laws from the laws described in the Notice of Proposed Action.