State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text and Availability of Additional Documents

PROPOSED REGULATION ON THE COMMERCIALIZATION OF ALTERNATIVE DIESEL FUELS

Public Hearing Date: February 19, 2015
Public Availability Date: May 22, 2015
Deadline for Public Comment: June 8, 2015

At its February 19, 2015 public hearing, the Air Resources Board (ARB or Board) considered staff's proposed amendments to California Code of Regulations (CCR), title 13, sections 2290, 2291, and 2293; proposed addition of new sections 2293, 2293.1, 2293.2, 2293,3, 2293.4, 2293.5, 2293.6, 2293.7, 2293.8, 2293.9, and Appendix 1; renumbering of existing sections 2293 and 2293.5; and proposed designation of new subarticles 1, 2, and 3, in Title 13, Division 3, chapter 5, article 3 of the CCR to create a framework for alternative diesel fuels to enter the commercial market in California, while mitigating any potential environmental or public health impacts. The proposed regulation also included in-use requirements for biodiesel as the first alternative diesel fuel.

The Board directed the Executive Officer to determine if additional conforming 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. The Board further directed the Executive Officer to consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days. The Executive Officer was directed to evaluate all comments received during the public comment periods, including comments raising significant environmental issues, and prepare written responses to such comments as required by ARB's certified regulations at California Code of Regulations, title 17, sections 60000-60007 and Government Code section 11346.9(a). The Executive Officer was further directed to present to the Board, at a subsequently scheduled public hearing, staff's written responses to environmental comments and the final environmental analysis for consideration for approval, along with the finalized Commercialization of Alternative Diesel Fuels regulation for consideration for adoption.

The resolution and all other regulatory documents for this rulemaking are available online at the following ARB website:

http://www.arb.ca.gov/regact/2015/adf2015/adf2015.htm

The text of the modified regulatory language is shown in Attachment A. The originally proposed regulatory language is shown in underline to indicate additions to, and ~~strikethrough~~ to indicate deletions from, existing regulations. New deletions and additions to the proposed language that are made public with this notice are shown in ~~double strikethrough~~ and double underline format, respectively.

In the Final Statement of Reasons, staff will respond to comments received on the record during the comment periods. The Administrative Procedure Act requires that staff respond to comments received regarding all changes that are noticed. Therefore, staff will only address comments received during this 15-day comment period that are responsive to this notice, documents added to the record, or the changes detailed in Attachment A.

Summary of Proposed Modifications

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 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 has been 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 have been 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 has been 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 has been 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 has been modified to establish a more objective standard for risk, and language has been 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 has been modified to clarify that the Executive Officer has the ability to terminate <u>or</u> 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 has been 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 below 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 has been 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 are 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 depends 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 EO. Volume reporting requirements of neat ADF was added.

   c. In section 2293.8(b)(3)(C), volume reporting requirements of ADF/CARB diesel was 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, distributers, 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 distributers 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 deleted and *low saturation feedstock* was inserted.
6. In Appendix 1(a)(2)(E) Table A.9, ASTM methods D7170-14 and D7668-14a were added.

G. Non-Substantial Modifications

The following modifications constitute non-substantive changes to the regulatory text to correct typographical or grammatical errors, change in numbering or formatting, or revision to the language to add clarity and do not materially alter the requirements or conditions of the proposed rulemaking action. Not all such changes may be listed below. For a complete account of all modifications in the proposed regulation, please refer to Attachment A.

Phase-In Requirements (section 2293.5)

1. In section 2293.5(a)(1)(A), language was changed to correct a reference.
2. In sections 2293.5(a)(1)(C) and (D), language was added to clarify the information required for Stage 1 application submittal.
3. In section 2293.5(a)(1)(F), language was added to clarify that fuel distribution pumps would need to be labeled in accordance with California law.
4. In section 2293.5(a)(1)(K), language was modified to fit to the structure of the rest of the application information.
5. In section 2293.5(a)(1)(O), language was added to reflect that applicants might not know vehicle identification numbers when submitting the initial application.
6. In section 2293.5(a)(1)(Q), language was modified to correct formatting and fit to the structure of the rest of the application information.
7. In section 2293.5(a)(1)(R), modifications were made for clarity.

8. In section 2293.5(a)(1)(S), formatting changes were made.
9. In sections 2293.5(a)(2), (3) and 2293.5(b)(2), (3), the term *provisionally* was deleted as an unnecessary modifier.
10. In section 2293.5(a)(3)(D), text was changed to correct a reference and for clarity, and formatting changes were made.
11. In section 2293.5(a)(5), the word 'Emissions' was deleted in the title to more accurately reflect the scope of the multimedia evaluation.
12. In section 2293.5(b), *Phase 1* was changed to *Stage 1* to be consistent with the rest of the regulation.
13. In section 2293.5(b)(1)(C), language was added to clarify the information required.
14. In section 2293.5(b)(1)(F) and (H), formatting changes were made.
15. In section 2293.5(b)(3)(D), text was changed to correct a reference and for improved clarity and formatting.
16. In section 2293.5(b)(6), formatting changes were made.
17. In section 2293.5(c), formatting and modifications were made to improve clarity, and references were corrected.

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

1. In section 2293.6(a), language was added to the title to clarify that the provisions provided in this subsection only apply to biodiesel blends at or below a B20 blend.
2. In section 2293.6(a)(1), language was added to clarify that the provisions apply to biodiesel blends, formatting changes were made, and references were corrected.
3. The title of section 2293.6(a)(4) was modified to be consistent with the title of section 2293.6. The introductory text was modified to correct a reference and to improve clarity.
4. In section 2293.6(a)(4)(A), language was deleted as it was repetitive of section 2293.6(a)(4) introductory text.
5. Section 2293.6(a)(5)(E) formatting changes were made.

Reporting and Recordkeeping (section 2293.8)

1. The title for section 2293.8(b) was modified to describe stage specific reporting requirements.

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

1. A formatting change was made to the introductory text
2. Appendix 1(a)(2)(A), formatting changes were made and a reference was corrected in 2295(a)(2)(A)2.
3. Appendix 1(a)(2)(B)1, a reference was corrected.
4. Appendix 1(a)(2)(B)2, references were corrected and language was added to clarify that the additive must meet the blendstock properties specified in section 2295(a)(2)(D).
5. Appendix 1(a)(2)(H), a reference was corrected and *Table A.5* replaced *the table* to clarify what table was being referenced.

These modifications, separate modifications to the proposed Low Carbon Fuel Standard (LCFS) regulation, and new information that has become available since December 2014 do not change implementation of the two regulations or the environmental setting in any way that affects the conclusions of the draft environmental analysis that was prepared for the proposed ADF and LCFS regulations. The modifications consist primarily of clarifications and limited substantive changes that will not substantially alter the compliance response to the proposed regulations. ARB staff anticipates changes to the environmental analysis to clarify and amplify the draft analysis, but does not anticipate revising the conclusions in its draft environmental analysis or recirculating the analysis for further public comment before the Board considers approving the analysis.

H. Additional Analysis to be Added to the Record

Staff performed additional air quality analysis in response to three separate items: 1) the producer/importer exemption added as new text to section 2293.6(a)(5)(C); 2) updated 2014 volumes in the LCFS illustrative compliance scenario; and 3) a re-analysis of certain assumptions in the ADF staff report. Staff has determined that the combined effects of these changes do not change the significance determinations in the draft Environmental Analysis that was prepared for the proposed ADF and proposed LCFS regulations, and previously circulated for public comment.

1) The producer/importer exemption is described above, and all provisions are included in Attachment A. This exemption would potentially result in NOx increases from biodiesel above those associated with the December 2014 ADF proposal, and its effects are included in the table below, which is an update to the NOx analysis that appeared in Appendix B of the December 2014 ADF Staff Report.

2) Staff updated the 2014 volumes of biodiesel and renewable diesel for the LCFS illustrative compliance scenario to replace projected volumes for 2014 with actual volumes as reported through the LCFS program. These 2014 volumes inform the NOx calculations in the ADF proposal. The 2014 volumes for biodiesel, renewable diesel, and total diesel demand have been updated in the table below. The actual reported volume of biodiesel in 2014 was 65 million gallons, lower than the estimated 2014 volume of 72 million gallons. Renewable diesel use in 2014 was reported at 114 million

gallons, compared to the earlier estimate of 120 million gallons for the year. Total diesel demand in 2014 was 3,787 million gallons, higher than the estimated 2014 volume of 3,732 million gallons.

3) In response to comments raised during the 45 day comment period, staff re-analyzed its earlier estimate that 40 percent of the state's renewable diesel (RD) enters refineries and is used as a blendstock to produce diesel fuel. If RD is used in refineries, it may only be offsetting the emissions of a dirtier diesel blendstock and may not be available to offset the NOx emissions of biodiesel downstream. Therefore, to be conservative in estimating potential NOx emissions (i.e., to ensure potential NOx impacts from biodiesel were not underestimated), ARB has reduced the total RD volume expected to provide NOx emissions reductions by the amount that is estimated to be used at refineries as a blendstock.

Note that although data is available for how much RD is purchased by refinery operators, no data is available to show how much RD is used by the refineries as diesel blendstock. For the staff report, staff assumed that refineries purchasing RD with an LCFS compliance obligation are using a significant portion of that RD as a blendstock for diesel production. Furthermore, the most conservative approach, when estimating emissions benefits from RD use, would be to assume that *all* refinery purchases of RD with compliance obligation would be used as diesel blendstock. For these reasons, staff used RD purchased by refineries with obligation as a surrogate for the amount of RD used in refineries as diesel blendstock and included that value in the ADF staff report analysis.

Staff's original analysis used confidential data from the Low Carbon Fuel Standard Reporting Tool (LRT) to determine that 40 percent of RD was being purchased with obligation by refiners in 2013, which was the latest year with available data at the time the staff report was released. Based on this data staff assumed that 40 percent of RD in California was used in refineries as diesel blendstock, assumed no emissions benefit from this fuel, and assumed that this trend would continue as refineries continued to purchase more RD with obligation.

ARB received comments in response to the original proposed regulation questioning the 40 percent estimate and the method by which staff determined this value. This prompted staff to perform the same analysis with 2014 LRT data, which had recently become available. Staff's analysis of 2014 LRT data shows that only 5 percent of RD was purchased by refiners with obligation. Note that neither the total RD purchased nor the total RD purchased by obligated parties with refineries similarly decreased – only the amount of RD purchased with obligation by refineries. Staff believes refineries are still using RD as a diesel blendstock, but no longer purchasing the fuel with obligation. This large difference in obligated purchase suggests that purchase with obligation likely reflects other market conditions and is not as accurate an indicator of how much RD is used as a blendstock, as staff originally believed. Staff has also been monitoring recent trends in RD use and has observed an increase in the current and anticipated future use of RD as unblended R100 by end users, either through fleet purchase or through retail sales.

Given the large variability in obligated purchases of RD by refineries and a general trend toward more use of unblended renewable diesel in-use, staff concluded the 40 percent estimate for future years was too high. Implicit in the 40 percent estimate was an assumption that the amount of renewable diesel being used in refineries would be increasing over time as the overall RD use in California increased. However, that assumption no longer seems to be supported by the data. Staff determined it is more realistic to assume that a certain volume of RD is used in refineries as diesel blendstock and that volume remains constant over time. However, staff is not confident using the reported 2014 RD volume purchased with obligation for this purpose. In order to retain the conservative approach of the original analysis, which is more protective of air quality, staff is retaining the estimated volume of RD entering refineries in 2014 that was used in the December 2014 staff report (48 million gallons). We believe the volumes are conservative but the percent going into the future is no longer accurate. The volumetric assumption is extended to all other years in replacement of the percentage assumption. The results of this change are shown in the table below.

Table 1. Updated ADF NOx Analysis

	Projections based on LCFS illustrative compliance scenario									
(Million gallons)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Biodiesel	65	97	129	160	180	180	180	185	185	185
B20 (No NOx post 2018)					28	28	28	33	33	33
B20 Producer exemption					2	2	2	2	2	2
BD Potentially causing NOx	65	97	129	160	152	152	152	152	152	152
RD Volume	114	180	250	300	320	360	400	500	550	600
Liquid Diesel Demand	3787	3788	3845	3903	3961	4021	4081	4142	4204	4267

	NOx emissions Calculations									
%NTDE (EmFAC 2011) (VMT)	40.09%	50.86%	59.87%	66.35%	71.26%	75.00%	79.78%	85.03%	88.74%	98.44%
BD used in legacy vehicles	38.9	47.7	51.8	53.8	43.7	38.0	30.7	22.8	17.1	2.4
%NOx increase (B100)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
RD used in legacy	68	88	100	101	92	90	81	75	62	9
RD used in refineries	48	48	48	48	48	48	48	48	48	48
Legacy RD used in refineries	29	24	19	16	14	12	10	7	5	1
Legacy RD not used in refineries	40	65	81	85	78	78	71	68	57	9
Legacy BD offset by Legacy RD	14	24	29	31	28	28	26	25	21	3
%NOx increase from BD	0.13%	0.13%	0.12%	0.12%	0.08%	0.05%	0.02%	-0.01%	-0.02%	0.00%
Emissions Inventory (Diesel TPD)	916	863	818	772	726	680	634	588	542	496
NOx increase from BD (TPD) (original proposal)	1.35	1.29	1.27	1.26	0.90	0.65	0.43	0.20	0.10	0.01
NOx increase from BD (TPD) (additional analysis)	1.19	1.10	0.95	0.91	0.56	0.33	0.15	-0.05	-0.09	-0.02
Net NOx increase (from 2014)	0.00	-0.09	-0.24	-0.28	-0.63	-0.86	-1.04	-1.24	-1.28	-1.21

I. Additional Documents (Including Incorporated Documents) Added to the Record

In the interest of completeness, staff has also added to the rulemaking record and invites comments on the following additional documents:

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.

These documents are available for inspection by contacting Trini Balcazar, Regulations Coordinator, at (916) 445-9564.

Agency Contacts

Inquiries concerning the substance of the proposed regulation may be directed to Mr. Alexander "Lex" Mitchell at (916) 327-1513 or Ms. Susie Chung at (916) 327-0647.

Public Comments

Written comments will only be accepted on the modifications identified in this notice and may be submitted by postal mail or electronic mail submittal as follows:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Executive Officer, comments must be directed to ARB in one of the two forms described above and received by ARB by 5:00 p.m., on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations will be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact

the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alterno u otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

CALIFORNIA AIR RESOURCES BOARD

Richard W. Corey
Executive Officer

Date: 5/22/15

Attachment A

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see ARB's website at www.arb.ca.gov.