

Frequently Asked Questions on the Alternative Diesel Fuel Regulation California Code of Regulations, title 13, sections 2293-2293.9

Introduction:

The Air Resources Board adopted a regulation on the Commercialization of Alternative Diesel Fuels (ADF), found at California Code of Regulations (CCR), title 13, sections 2293-2293.9 (ADF regulation), which became effective January 1, 2016. The regulation establishes a comprehensive, multi-stage process governing the commercialization of new ADFs in California. The regulation also establishes specifications and in-use requirements (such as using a NOx reduction additive) for biodiesel, as the first ADF subject to the ADF regulation.

This document is intended to assist regulated parties with complying with the ADF regulation reporting and recordkeeping requirements. This document is available at: <http://www.arb.ca.gov/fuels/adf/adfdocs.htm>.

For more information on the ADF regulation, please contact Alexander “Lex” Mitchell at Alexander.Mitchell@arb.ca.gov or 916-327-1513, or Susie Chung at Susie.Chung@arb.ca.gov or 916-327-0647.

1. Does the ADF regulation apply to me?

The ADF regulation contains reporting and recordkeeping requirements (section 2293.8) applicable to entities in the biodiesel industry, effective January 1, 2016. Biodiesel producers, importers, and blenders are required to report and keep records concerning biodiesel production, sales, and blending. On the other hand, biodiesel distributors and retailers are only required to keep records. On January 1, 2018, the biodiesel in-use requirements will become effective, but until then, the ADF regulation requires only reporting and recordkeeping for biodiesel. For more information, please see the ADF regulation at: <http://www.arb.ca.gov/regact/2015/adf2015/adffinalregorder.pdf>.

2. Does the ADF regulation apply to both on and off-road vehicle fuel?

Yes, section 2293.1(a) states that the ADF regulation applies to *any* alternative diesel fuel, including on and off-road fuel.

3. Is renewable diesel subject to the ADF regulation?

No, renewable diesel (also called renewable hydrocarbon diesel) is not subject to the ADF regulation. The ADF regulation defines an ADF as, among other things, a fuel that does not consist solely of hydrocarbons. Renewable diesel consists solely of hydrocarbons, and is therefore considered diesel rather than an ADF. Renewable diesel is subject to the diesel regulations at CCR, title 13, sections 2281-2285.

4. Are biodiesel blends above B20 considered commercial Stage 3 fuels under the ADF regulation?

No, biodiesel blends above B20 are not Stage 3 fuels under the ADF regulation. The ADF regulation contains specifications for B100 blendstocks, but does not contain provisions for biodiesel blends above B20 as a finished fuel. Blends above B20 have

not met the requirements of consensus standard adoption, engine manufacturer approval, or development of emissions protective fuel specifications or in-use requirements under the phase-in requirements of section 2293.5. Biodiesel blends above B20 must therefore go through the phase-in requirements of section 2293.5, including applying for a Stage 1 Pilot Program prior to sale.

5. For purposes of reporting and recordkeeping, is the “blender” considered the owner of the fuel at the time of blending, or the operator of the blending equipment?

The blender is the person that operates the equipment that is actually used to perform the blending. This person is responsible for satisfying the reporting and recordkeeping requirements for blenders under section 2293.8. It is ARB’s understanding that, under current blending practices, the blending equipment will likely either be a terminal, in the case of rack blending (including tank, in-line blending, or sequential blending), or a tank trailer, in the case of splash blending.

All fuel blenders are required to keep complete records under the Motor Vehicle Fuels Distributor Certification Program (MVFDCP) and the ADF regulation requires that the record to be submitted by blenders and to keep the record for five years. Please see Question 22 for more information.

6. What are some examples of producers, importers, blenders, distributors, and retailers?

Any particular regulated party may be subject to the reporting and recordkeeping requirements of more than one category in section 2293.8, and therefore is responsible for compliance with the requirements of each applicable category. The following list only provides examples of persons subject to the ADF regulation. To determine whether the regulation applies to a particular person, please consult the ADF regulation.

Producers: An example of a producer is a person who produces vehicular alternative diesel fuel in California.

Importers: An example of an importer is a person who buys an ADF or ADF blend from another state or another country and introduces the ADF or ADF blend into California for use in-State.

Blenders: An example of a blender is a person who blends an ADF with another fuel.

Distributors: An example of a distributor would be a person who transports an ADF or ADF blend without changing its blend level or composition.

Retailers: An example of a retailer would be a person who sells an ADF or ADF blend to end users.

7. When reporting feedstock, may the Low Carbon Fuel Standard (LCFS) mixed feedstock guidance be used?

No, the ADF regulation requires that biodiesel producers, importers, and blenders report the monthly volume of neat ADFs produced, imported or obtained by feedstock. The reported biodiesel feedstock must match the actual feedstock rather than environmental attributes of the fuel being reported. In order to satisfy this requirement, cetane number or saturation level of a batch should be used as shown in Table A.2 and below.

Biodiesel Saturation Level	Unadditized Cetane Number	Test Method
Low Saturation	<56	ASTM D613-14; or ASTM D6890-13be1
High Saturation	≥56	ASTM D613-14; or ASTM D6890-13be1

8. What should be reported if the saturation level of the feedstock is unknown?

If the saturation level (e.g., high or low) of the feedstock is unknown, low saturation level may be used as the default saturation level in lieu of the required testing to determine the actual cetane number.

9. Does Carbon Intensity (CI) pathway information need to be added to product transfer documents (PTD) in response to the ADF regulation?

No, the ADF regulation does not require adding CI pathway information to PTDs. The ADF regulation *reporting provisions* do not require submission of any CI pathway information. However, the ADF regulation *recordkeeping provisions for Stage 3A fuels*, which includes biodiesel, requires that producers, importers, blenders, distributors, and retailers keep PTDs for a minimum of five years and requires retention of CI pathway information that may be included on those PTDs. A PTD prepared to comply with the LCFS recordkeeping requirement should contain most or all of the information required under the ADF regulation.

10. Do blenders of B5 need to report their B5 blending?

Yes, the ADF regulation requires that *all* biodiesel blends of B20 and below are subject to the reporting requirements in section 2293.8 and Appendix 1 of the ADF regulation. It is important for enforcement purposes that all blends of biodiesel be reported. Please see Questions 16 and 17 for more information.

11. Can blenders report their biodiesel blend levels as ranges?

Yes, the most strict compliance option for the ADF regulation is to use an additive for blends B6 to B20 in accordance with Table A.5 in Appendix 1. This table includes blend ranges for additive use, and blenders may report their blends as ranges consistent with the ranges in this table. However, biodiesel that is reported as a blend range will subsequently be treated as having a blend level at the top of the range, unless the fuel is tested to determine its exact blend level. Please see Question 12.

Biodiesel Saturation Level	Biodiesel Blend Level
Low Saturation	≤ B5
	>B5 to <B10
	B10 to <B15
	B15 to B20
High Saturation	≤ B5
	>B5 to <B10
	B10 to <B15
	B15 to B20

12. Are blenders responsible for accurate blending and reporting of biodiesel that they blend?

Yes, it is each blender's responsibility to confirm the blended amount and accuracy of the blend levels that are reported. For example, if a blender wishes to add biodiesel to fuel that may already contain up to five percent biodiesel, but the precise blend level is not known, the blender must either test the fuel to determine its actual blend level or assume the fuel contains five percent biodiesel prior to blending.

13. Is there a specific form available for reporting?

Yes, staff developed a reporting form to help regulated parties with organizing and reporting the information to comply with the ADF reporting requirements. It is available at: <http://www.arb.ca.gov/fuels/adf/adfdocs.htm>.

14. When are quarterly reports due?

Under section 2293.8(a)(1), quarterly reports must be submitted by the end of the subsequent reporting period. For example, first quarter reports (January 1 through March 31) are due by June 30.

15. To whom should ADF reports be submitted, and is email or paper preferred?

Please send quarterly reports electronically (preferred) to: adf@arb.ca.gov; or by mail to:

Oil and Gas and GHG Mitigation Branch Chief
1001 I St. P.O. Box 2815
Sacramento, California 95812

16. Is the Blenders2 sheet of the ADF reporting form necessary for B5 blenders?

Yes, although the information in the Blenders1 and Blenders2 sheets appear similar, they are different and apply to all biodiesel blenders. For example, the Blenders1 sheet includes the volume of blends *produced*, whereas Blenders2 includes the volume of blends *supplied*. This information is needed to track the blendstock and all blends of finished fuel volume produced and supplied during each month. If the entire volume of blends produced was supplied during the same month, it may be as simple as entering the same information on both the Blenders1 and Blenders2 sheets for that month.

The Blenders1 and Blenders2 sheets apply to all blenders including B5 and below blenders. However, B5 blenders may omit parts of Blenders2 sheet. Please see Question 17 for more information.

17. Is the purchaser's information for blends B5 and below in the Blenders2 sheet required to be reported?

No, downstream purchaser's (e.g., end users and retailers) information for biodiesel blends B5 and below is not required to be reported. In addition, blends that do not include NOx control (B5 year round, B10 November through March) are not required to report the downstream purchaser information. The revised reporting form has clear notation of when this information is needed.

18. Is the purchaser's information for blends above B5 in the Blenders2 sheet currently required to be reported?

No, downstream purchaser's information for biodiesel blends above B5 is not required to be reported until January 1, 2018. The reporting form will have a clear notation that this information is not required until January 1, 2018 in the next version. Effective January 1, 2018, biodiesel blends above B5 are subject to in-use requirements depending on the feedstock and month, and the downstream purchaser's information will need to be tracked and reported at that time.

19. We have multiple facilities where we blend up to B5. Can we report the total aggregate B5 produced from all the blending facilities instead of by facility?

No, an operator of multiple blending facilities may not report the total aggregate blend (e.g., B5) produced from all blending facilities. Each blending facility is considered an individual blender, and each blender must report separately.

20. Is producing B99 from B100 considered blending?

No, the ADF regulation treats B99 and B100 the same and does not consider this blending. Reporting of this action is not necessary.

21. Can a person in the state still purchase and sell B100 or B99?

Yes, purchase and sale of biodiesel *blendstocks* higher than B20 is allowed. However, those sales may not be retail sales for end use in engines, unless the selling entity has applied for and received an approved Executive Order as part of the 3 stage phase in process.

22. Are biodiesel blenders still required to register under the Motor Vehicle Fuels Distributor Certification Program (MVFDCP)?

Yes, biodiesel blenders must continue to comply with the MVFDCP. The MVFDCP is required by statute and requires that any motor vehicle fuels distributor who conducts business within the State of California must register with the ARB as a fuel distributor (Health and Safety Code Section 43025-43031.5). The MVFDCP's distributor definition largely overlaps with the blenders and distributors under the ADF regulation.

The MVFDCP requires that all vehicle fuel distributors maintain complete records of each purchase, delivery, or supply of motor vehicle fuel for a period of no less than two years in the physical locations reported pursuant to the subdivision. A complete record for each delivery is required to consist of no less than a copy, or the information contained therein, of the bills of lading from the refiner or bulk terminal from which the fuel is received, the delivery ticket or receipt showing the location of the fuel at the time of sales, and the invoice showing the purchaser of the fuel. The recordkeeping provisions of the ADF regulation largely overlap with the MVFDCP, however the ADF regulation requires records retention for 5 years.

23. Who are distributors and are they required to report?

Distributors in the ADF regulation include those known in the industry as traders, common carriers, and jobbers that may or may not own the fuel title. Distributors generally transport fuels from upstream suppliers to the next downstream purchasers

from the refinery or bulk terminal or import facility to motor vehicle fuel retailers. Distributors do not change a fuels formulation, composition, or blend level (other than producing B99 from B100). Distributors are not required to report but are required to keep records (generally the product transfer document or bills of lading) for a minimum of 5 years. The ADF regulation section 2293.8(c)(3)(D) contains the Stage 3A ADF recordkeeping requirements applicable to biodiesel.

24. How is the saturation level of a biodiesel blend determined when high and low saturation fuels are blended in a tank?

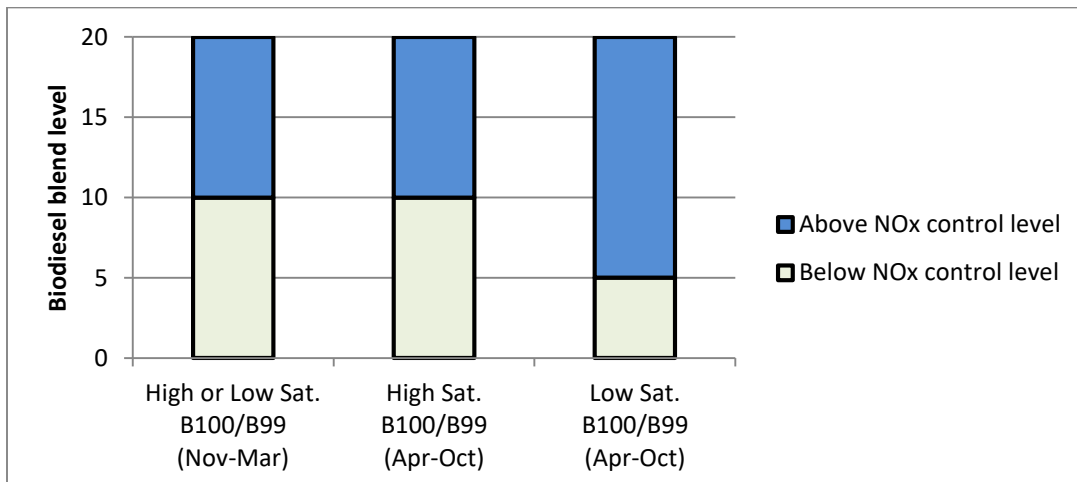
When high and low saturation fuels are blended, the mixture must be tested for saturation level if it is still to be labelled as high saturation. Otherwise it may be downgraded to low saturation without testing. High saturation biodiesel blends up to B10 do not need in-use requirements to address NOx once the NOx control levels become effective in January 2018.

Additional FAQs (November 2017)

Effective January 1, 2018, the ADF regulation requires implementation of the biodiesel in-use requirements. These in-use requirements mitigate potential increases in the NOx emissions from the use of higher biodiesel blends. In addition to the reporting requirements currently in practice, the method of NOx mitigation and the volume mitigated must be reported when implemented by any parties, including producers, importers, or blenders. The reporting form is being revised to include the in-use requirements information effective January 1, 2018.

25. What is a Pollutant Control Level and what is it for biodiesel?

A pollutant control level is the blend level of an ADF above which increases in one or more criteria pollutants have been found compared to CARB diesel that must be mitigated. Biodiesel is currently the only ADF with an established pollutant control level, and the pollutant of concern is NOx, therefore a NOx control level exists for biodiesel. The NOx control level for biodiesel is in the ADF regulation Section 2293.6(a)(2) and shown in graphical format below. Biodiesel blends above the NOx control level are subject to in-use requirements.



26. What are the available NOx control methods to comply with the biodiesel in-use requirements?

The available NOx control methods are listed in the ADF regulation, Appendix 1 and under executive orders posted at <https://www.arb.ca.gov/fuels/adf/adfdocs.htm>. The NOx control methods include two additives: Di-tert-butyl peroxide, and VESTA 1000. Staff have also received numerous applications for fuel or additive certifications under the ADF regulation and will post the applicable executive orders if and when those fuels or additives are certified.

27. Who is responsible for applying the NOx control method?

The ADF regulation requires that all final blends distributed to end users meet the in-use requirements, and blends above the NOx control level must be mitigated before being sold or supplied to end users. Producers or importers may supply either NOx-mitigated or unmitigated B100/B99, or both. However, whether the B99/B100 is mitigated must be indicated on the invoice or product transfer document accordingly. Blenders may not supply blends of B20 or below to end-users unless those blends are mitigated or blended below the NOx control level. All of the above information is required to be included on producers, importers, and blenders reporting forms. The reporting form tracks whether applicable blends are properly NOx mitigated or blended below the NOx control level before sold or supplied to the end users.

28. Are there any exemptions from the in-use requirements?

Yes. The ADF regulation includes three exemptions from the biodiesel in-use requirements. The exemptions included in the ADF regulation apply to fleet fueling facilities, retail fueling stations, and small volume producers and importers who meet certain criteria. As of November 2017, no one has applied for or been granted any of the exemptions.

The small volume producers and importers exemption is no longer available because the deadline to apply for that exemption, January 1, 2017, has passed. However, operators of fleet fueling facilities and retail fueling stations may still apply for an exemption. Please see section 2293.6(a)(5) for in-use exemption application requirements.

29. Are there additional recordkeeping requirements effective January 1, 2018?

Yes. Effective January 1, 2018, invoices or product transfer documents must specify the NOx control method used and must be retained for at least 5 years. The ADF regulation section 2293.8(c)(3)(D) contains stage 3A fuels recordkeeping requirements.

30. When will the revised reporting form be available?

The reporting form will be available on-line prior to January 1, 2018. A list serve message will be sent out when the form is posted on the ADF website. Please sign up for the list serve at: <https://www.arb.ca.gov/fuels/adf/adf.htm>.

31. What frequency of testing is required to determine biodiesel saturation?

Producers and importers claiming a high saturation biodiesel must test their biodiesel for cetane once a month. Each B100/B99 blendstock storage tank must be tested and such testing must be representative of overall biodiesel produced or imported.

32. How can blenders ensure that finished fuel meets the in-use requirements?

Blenders can ensure that the finished fuel produced meets the in-use requirements in one of three ways: 1) Obtain NOx mitigated B100/B99 (or intermediate blends such as B50), or 2) Apply a NOx control method during blending, 3) Produce blends below the NOx control level. This information will need to be indicated on both the invoice or product transfer document and the reporting form. Biodiesel blends that are below the NOx control level are not subject to NOx mitigation.

33. How must additive concentration be calculated for NOx control additives?

Additive concentration is calculated based on the total fuel volume prior to adding additives. Below is the equation blenders should use when calculating the amount of additive needed to meet the in-use requirements.

Additive Volume to meet the Volume Percent, Minimum (always round up):

$$X = Y \times Z$$

Where:

X = Additive Volume (gallons) needed to meet the Volume Percent

Y = Final Blend Volume (gallons of CARB diesel (B0) and B100 combined)

Z = % additive required /100 (% additive required can be found in tables in the applicable executive order for certified additives or in Appendix 1 (a)(1)(A) for DTBP)

34. Can two mitigated biodiesel blends be comingled even if their mitigation methods were different?

Yes. Any mitigated biodiesel blends or blendstocks that contain NOx control methods can be comingled and retain their status as mitigated.

35. What B100/B99 reference fuel properties must be met for NOx control certification?

Table A.8, Additive certification fuel blendstock properties, Appendix 1 in the ADF regulation, contains the fuel properties of the blendstock. Please note that the viscosity range listed in Table A.8 is a typo, it should be 1.9-6.0 cSt, not 2.0-4.1 cSt.

36. What CARB diesel reference fuel properties must be met for NOx control certification?

The reference CARB diesel must meet the specifications in Table A.9 of Appendix 1 in the ADF regulation, must be produced using normal refinery processes, including distillation and hydrotreating, but not cracking, and must not include any chemical blendstocks. Please note that the Polycyclic Aromatic Content listed in Table A.9 is a typo, it should be 1.4% maximum, not 10% maximum.

37. Can I use the DDC series 60 engine for NOx control certification testing after December 31, 2017?

Yes. Currently the deadline to switch the certification engine from the DDC series 60 to the Cummins ISM is December 31, 2017. Due to stakeholder feedback and for the sake of fairness to all applicants, CARB is extending this deadline to June 30, 2018. This means that all certification testing using the DDC series 60 engine must be complete by June 30, 2018 at the latest. Please note that the Cummins ISM engine may be used for testing at any time prior to and after June 30, 2018.