

Outline of the Proposed Alternative Diesel Fuels Regulation

Section 2293. Alternative Diesel Fuels.

Overview.

This regulation will be a new section 2293 in title 13 of the California Code of Regulations (CCR). It will cover new alternative diesel fuels (ADF) and provide a streamlined pathway to legal sale of those fuels in California. The regulation would apply a prescribed process to any ADF for which emissions data warrant enhanced monitoring, analyses, and if needed, emissions mitigation; or emissions data are unavailable for that ADF. The process would allow a gradual and controlled ramp up of sales while requiring emissions testing, market monitoring, and analysis of specified market performance criteria. The regulation would require the mitigation of any significant adverse emissions impacts upon the Executive Officer making specified findings after conducting annual market assessments. The first ADF subject to this regulation will be biodiesel.

2293.1. Purpose and Overall Regulation Design.

This regulation is intended to:

- Foster the introduction and use of alternative diesel fuels that have environmental benefits,
- Assure adequate fuel quality to provide for public safety and proper engine performance, and
- Ensure no significant adverse impacts on ground-level ozone, particulate matter, and other criteria or air toxic pollutants from alternative diesel fuels.

2293.2. Applicability.

- Applies to any person who sells, offers for sale, or supplies alternative diesel fuel, including producers, importers, and blenders.
- Applies to any liquid (at ambient conditions) fuel meant for use in a diesel engine that does not have an applicable specification under 13 CCR section 2292.

2293.3. Exemptions.

- ADF fuel applications specifically exempted from LCFS (17 CCR 95480.1(d))
- ADF fuel used in fleets comprising 95% or more 2010-compliant diesel engines or engines with ARB approved aftermarket NOx controls are presumed to be exempt from the mitigation requirements, subject to data available to the EO showing the fuel may have an adverse effect on emissions even in such engines. Monitoring and reporting requirements remain in effect.

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- ADF fuels demonstrated to have no significant adverse environmental or public health impacts at any blend level with CARB diesel would be exempt from mitigation requirements. Monitoring and reporting requirements remain in effect but can be met via existing reporting (e.g., LCFS reporting).
- B1-B5 blends meeting 13 CCR 2280-2285 are not subject to the mitigation requirements in Stage 1, 2 or 3. Monitoring and reporting requirements remain in effect.
- Drop-in fuels are presumed to be exempt from any mitigation requirements, but monitoring and reporting requirements remain in effect.

2293.4. General Prohibition and Requirements Applicable to All ADFs:

(a) Starting July 1, 2014, no person shall sell, offer for sale or supply an alternative diesel fuel intended for use in motor vehicles in California unless the alternative diesel fuel meets the applicable requirements specified in this regulation.

(b) All ADFs must be registered with U.S. EPA under 40 CFR part 79.

(c) All ADFs must meet applicable Division of Measurement Standards fuel regulations (4 CCR sections 4140-4148, 4200, and 4202-4205).

(d) All other local, State, and federal requirements remain in effect (e.g., Low Carbon Fuel Standard, Renewable Fuel Standard, CARB diesel standards applicable to the diesel portion of an ADF-CARB diesel blend, etc.).

2293.5. Phase-In Requirements

To meet ARB requirements for legal sale in California, an ADF starts at the applicable phase-in stage specified below and goes through each applicable subsequent stage, as follows:

(a) Stage 1: Limited Start-Up Sales for ADFs With No Emissions Data.

- ADFs in this stage must meet and go through the test program exemption process and be sold under a Memorandum of Exemption (MOE) granted pursuant to the requirements in 13 CCR sec. 2294 and 2259. This exemption is limited in time and scope, with sales restricted to specified volumes and identified fleets. The applicant is required to conduct engine emissions and performance testing, conduct screening environmental impacts analyses, submit specified reports, meet the chemical and physical properties specified by the applicant, and meet other requirements in the MOE.

(b) Stage 2: Expanded Sales with Enhanced Monitoring, Specified Pre-Mitigation Performance Criteria and Analysis.

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- ADFs in this stage are permitted increased sales across the State while the EO monitors and evaluates performance criteria specified in section 2293.6. The performance criteria shall be a specified list of indicators that, in the aggregate, represent a significance level of ___% potential increase in NOx statewide, or an incremental increase of any other air pollutant determined by the Executive Officer as a potentially significant adverse impact in the particular air pollutant. The significance level reflects the sales volume of an ADF that would trigger the application of mitigation measures to the extent needed to bring the pollutant level below the significance level.
 - The EO shall conduct annual evaluations of the performance criteria for ADFs falling within this stage and shall publish on the ARB website the results of such evaluations by July 1 of each year after this regulation has become effective. The publication shall identify whether the significance level for a particular pollutant of concern has been reached in the year evaluated and shall include the data, surveys, reports, modeling, and other information used in the evaluation.
 - Biodiesel falls within this stage.
- (c) Stage 3: Emissions-Mitigated Sales, Continued Enhanced Monitoring and Analysis
- If the EO has determined that the performance criteria have been met and the significance level for a particular pollutant of concern has been reached for an ADF for two consecutive calendar years, the EO shall post on its website his/her determination that the mitigation triggering threshold has been reached for that pollutant.
 - Publication of the EO's determination of significance triggers the one-year deadline for applying mitigation measures to reduce the pollutant level to below the significance level.
 - Within one year of the EO's publication of his/her determination, all producers and importers of that ADF must meet the requirements of any of the applicable mitigation measures specified in 2293.7 and Appendix A.
 - Thereafter, the EO shall conduct semi-annual or more frequent evaluations, as the EO deems appropriate under the circumstances, to determine:
 - if the pollutant levels have been reduced below the significance level and current mitigation measures are sufficient to keep the pollutant levels below the significance level;

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- if additional mitigation measures need to be applied to reduce the pollutant levels further to below the significance level; or
- if the totality of the circumstances no longer warrant the application of mitigation measures because the pollutant levels are expected to remain below the significance level from that point onward.

(d) Stage 4: Unrestricted Sales, Reduced Reporting.

- This provision applies to an ADF that:
 - has been deemed by the EO as having successfully completed the three prior stages of fuel introduction into California, or their equivalence; or
 - has a motor vehicle fuel specification adopted by ARB.
- Compliant sales of an ADF in this stage are not restricted under this regulation, but providers of such an ADF must continue to report sales volumes and other information as specified. This reporting requirement can be met with reporting submitted for the LCFS program.
- A biodiesel blend with up to 5% by volume biodiesel and the remainder comprising CARB diesel (B0-B5) falls within this stage.

2293.6. Performance Criteria for Pre-Mitigation Monitoring and Significance Level Determinations

All producers and importers of an ADF that falls within Stage 1, 2 3, or 4 shall provide quarterly and annual reports for each ADF on:

- Sales volume and blend levels of each ADF
- Feedstock(s) used to produce each ADF

Each year, the Executive Officer shall evaluate the above information, as well as:

- the 2010-compliant engine penetration in on-road and off-road fleets,
- the fleet penetration of ARB approved aftermarket NOx controls
- emission offsets from other ADFs or drop-in fuels,
- the current use of additives, cleaner CARB diesel, certified ADF blends, or other approaches already approved by the EO as a mitigation measure pursuant to Appendix A, and

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- other information the EO deems relevant and appropriate.

From this information, the EO shall assess the overall aggregate impact the ADF has had on statewide ground level ozone and other air pollutants of significant interest. Also, from this information, the EO shall determine the significance level for each ADF.

When determining the total volume of diesel and ADF consumption in California, the Executive Officer shall consider information published by the Energy Commission and the Board of Equalization.

2293.7. Interim and Final Specifications for Alternative Diesel Fuels:

(a) Stages 1-3. An ADF that is subject to the requirements in Stage 1, 2, or 3 must meet the properties and other requirements of the interim specification specified by the Executive Officer in the Executive Order for that ADF. This provision does not apply if a final specification has been adopted by ARB for that ADF and incorporated into 13 CCR section 2290 et seq.

For biodiesel, any B100 that is produced, sold, or imported into California must meet the following interim specifications:

Property	ASTM Test Method	Value
Cetane number	D613 or D6890	>47
API Gravity	D287-82	>27 degrees API
Sulfur	D2622	<15 ppm
FAME content	EN 14103	>96.5%

(b) Stage 4. An ADF that is subject to Stage 4 must meet the properties and other requirements of the final specification applicable to that ADF as adopted by ARB.

2293.8. Reporting and Recordkeeping. [Reserved]

2293.9. Definitions.

- (1) "Alternative diesel fuel" or "ADF" means any fuel used in a compression ignition engine that is liquid at ambient conditions, does not consist solely of hydrocarbons, and does not have an applicable specification under 13, CCR, section 2292.
- (2) "Biodiesel" means an alternative diesel fuel that meets the definition of "biodiesel" in the LCFS regulation (17 CCR 95481(a)).
- (3) "Hydrocarbon" means any chemical or mixture that is composed solely of hydrogen and carbon.
- (4) "Drop-in Fuel" means a fuel which is blended with CARB diesel beyond the refinery gate or used as a neat fuel and is either:

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- chemically identical to and meets the requirements for CARB diesel, or
 - its chemical and physical properties fall within the ranges of those properties for CARB diesel.
 - Renewable diesel, Gas To Liquid, and similar fuels are presumed to meet the above criteria, and are therefore not considered to be ADFs.
- (5) “Importer” means the person who owns an imported product when it is received at the import facility in California.
- (6) “LCFS” means the Low Carbon Fuel Standard (17 CCR 95480—95490).
- (7) “Non-petroleum renewable resources” means resources including but not limited to biomass, waste materials, and renewable crude.
- (8) “Performance Criteria” means a list of indicators, including but not limited to the total volume and volume percent represented by an ADF’s sales in California, that are specified by the Executive Officer for use in determining whether, in the aggregate, the significance level for a pollutant has been reached or will be reached.
- (9) “Producer” means the person who owns the fuel when it is first sold, offered for sale or supplied in California.
- (10) “Significance Level” means a potential increase of ___% in NO_x statewide, or an incremental increase of any other air pollutant determined by the Executive Officer as a potentially significant adverse impact in the particular air pollutant. The significance level reflects the sales volume of an ADF that would trigger the application of mitigation measures to the extent needed to bring the pollutant level below the significance level.

Appendix A. Mitigation Measures.

[These are the mitigation measures already publicly discussed by ARB staff.]

A person subject to the Stage 3 mitigation requirements (section 2293.5(c)) may meet the mitigation requirement by implementing any of the following mitigation measures as applicable, either alone or in combination:

- Additives approved for mitigation purposes,
- Cleaner CARB diesel (i.e., CARB diesel that has properties such that the pollutant that has triggered the significance level finding is already mitigated to the degree necessary to reduce the pollutant emissions below the significance level,

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- An ADF-CARB diesel blend certified as emissions equivalent to CARB diesel or better,
- A neat ADF finished fuel certified as emissions equivalent to CARB diesel or better, or
- Other options certified by the Executive Officer for this purpose.