

CALIFORNIA AIR RESOURCES BOARD

**THE CALIFORNIA LOW CARBON FUEL STANDARD
REGULATION**

REVISIONS TO THE DRAFT REGULATION

January 2009



California Air Resources Board
California Environmental Protection Agency

[Note: Shown below are the staff's suggested modifications to the proposed regulatory language released for public comment on December 1, 2008 ("December 2008 release"). This document is printed in a style to indicate changes to the December 2008 release. Proposed regulatory language from the December 2008 release is indicated by plain type. The proposed modifications are shown in underline to indicate additions and ~~strike through~~ to indicate deletions. Only those portions containing the suggested modifications are included; all other portions not shown in this document (indicated by "*" *") have not been modified yet but remain subject to further discussion and development. In some cases as shown, the subsection numbers have been omitted for convenience and ease of reading.]

Section 95420. Definitions and Acronyms

(a) For the purposes of sections ~~95421~~ 95420 through ~~95428~~ 95429, ~~the following definitions shall apply~~ the definitions in Health and Safety Code sections 39010 through 39060 shall apply, except as otherwise specified in this section or in sections 95421 through 95429:

* * *

(7) "Credits" and "deficits" calculated pursuant to section 95425(a)(3), are the measures used for determining a regulated party's compliance with the low carbon fuel standards in section 95422. Credits and deficits are denominated in units of metric tons of CO₂e., is the mass of CO₂e, measured in metric tons, determined from the difference between the allowed emissions, set by either the gasoline or diesel standard, and the emissions generated by the use of a fuel. A credit is generated when the emissions is less than the allowed emissions. A deficit is generated when the emissions is greater than the allowed emissions. In the LCFS, the total credits and deficits, calculated from the sum of credits/deficits generated under the gasoline and diesel groups, can be considered as "currency" or "obligation" under the LCFS and used in the determination of compliance.

* * *

(24) "Regulated party" means a person who is subject to the LCFS pursuant to section 95424(a), must meet the low carbon fuel standards in section 95422.

* * *

(26) "Transportation fuel" means any fuel used or intended for use as a motor vehicle fuel, other than racing fuel. In addition, "transportation fuel" includes diesel fuel used or intended for use in nonvehicular sources other than the following:

- (A) Locomotives ~~(excluding, other than~~ diesel electric intrastate locomotives as defined in title 17, California Code of Regulations, section 93117). ~~And~~
- (B) Marine vessels ~~, other than~~ (excluding harborcraft as defined in title 17, California Code of Regulations, section 93117); and
- (C) Aircraft.

* * *

Add new definitions:

- () “Biogas (also called biomethane)” means natural gas that meets the requirements of 13 CCR §2292.5 and is derived from anaerobic digestion of agricultural waste, animal waste, or other biomass.
- () “Biomass” has the same meaning as defined in “Renewable Energy Program: Overall Program Guidebook,” 2nd Ed., California Energy Commission, Report No. CEC-300-2007-003-ED2-CMF, January 2008, which is incorporated herein by reference.
- () “Biogas CNG” means CNG consisting solely of compressed biogas.
- () “Biogas LNG” means LNG consisting solely of liquefied biogas.
- () “Compressed Natural Gas (CNG)” means natural gas that has been compressed to a pressure greater than ambient pressure and meets the requirements of 13 CCR §2292.5.
- () “Fossil CNG” means CNG that is derived solely from petroleum or fossil sources, such as gas fields and coal beds.
- () “Importer” means the person who owns an imported product when it is received at the import facility in California.
- () “Import facility” means, with respect to any imported liquid product, the storage tank in which the product was first delivered from outside California into California, including, in the case of liquid product imported by cargo tank and delivered directly to a facility for dispensing the product into motor vehicles, the cargo tank in which the product was imported.
- () “Liquefied Natural Gas (LNG)” means natural gas that has been liquefied and meets the requirements of 13 CCR §2292.5.
- () “Natural Gas” means a mixture of gaseous hydrocarbons and other compounds, with at least 80 percent methane (by volume), and of

pipeline quality, such as the gas sold or distributed by any utility company regulated by the California Public Utilities Commission.

() “Producer” means, with respect to any liquid fuel, the person who owns the liquid fuel when it is supplied from the production facility.

() “Production facility” means, with respect to any liquid fuel (other than LNG), a facility in California at which the fuel is produced. “Production facility” means, with respect to natural gas (CNG, LNG or biogas), a facility in California at which fuel is converted, compressed, liquefied, refined, treated, or otherwise processed into CNG, LNG, biogas, or biogas-natural gas blend that is ready for transportation use in a vehicle without further physical or chemical processing.

* * *

Section 95421. Applicability of the Standard

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(b) Credit Generation Opt-In Provision for Specific Alternative Fuels.

Each of the following alternative fuels is presumed to have a full fuel-cycle, carbon intensity that meets the compliance schedules set forth in sections 95422 and 95423 through December 31, 2020. With regard to an alternative fuel listed below, the regulated party for the fuel must meet the requirements of the LCFS regulation only if the regulated party chooses to generate LCFS credits:

- (1) electricity;
- (2) hydrogen;
- (3) a hydrogen blend;
- (4) fossil CNG derived from North American sources;
- (5) biogas CNG; or
- (6) biogas LNG.

(b)(c) Exemption for Specific Alternative Fuels. Distributed in Low Volumes for Transportation Uses.

The LCFS regulation does not apply to an exempted a regulated party providing in a calendar year a transportation alternative fuel -- for any alternative fuel that meets the criteria in either section 95421(c)(1) or (2) below:

(1) An alternative fuel that:

- (A) other than a biofuel – that is not a biomass-based or renewable biomass-based fuel; and

~~(B) is supplied in California by all providers of that fuel for transportation use at an aggregated volume of less than 420 million MJ (3.6 million gasoline gallon equivalent) per year;~~

~~(2) Liquefied petroleum gas (LPG or propane).~~

- ~~(2) A regulated party wishing to receive an exemption for a calendar year for an alternative fuel must submit to the Executive Officer (i) an LCFS Exemption Application, and (ii) all relevant data and calculations used to demonstrate qualification of exemption. Within 15 business days of receipt of the application, the Executive Officer shall notify the party of any additional information that is needed for the application to be deemed complete. Within 15 business days of receipt of a complete application, the Executive Officer shall grant the application if the applicant has demonstrated that he or she satisfies the criteria in section 95421(b)(1). Upon acting on an application, the Executive Officer shall notify the applicant in writing and the decision shall be posted on ARB's webpage. An exemption may be renewed for subsequent calendar years.~~
- ~~(3) If a regulated party submits an Exemption Application in the first quarter of the calendar year, the exemption shall apply for that year to all parties who would otherwise be regulated parties with respect to the alternative fuel covered by the exemption. During the exemption period, an exempted party may elect to voluntarily opt in to the LCFS for that alternative fuel by notifying the Executive Officer in writing. Upon opting into the LCFS, the exempted party shall be subject to all of the requirements for a regulated party with respect to the alternative fuel and be considered a regulated party subject to all compliance requirements.~~
- ~~(4) *Late submissions.* If a regulated party submits an Exemption Application other than within the first quarter of the year, the exemption will begin no sooner than the date upon which the exemption is approved and remain effective until the end of the calendar year.~~

Section 95422. Standards Applied to the Gasoline and Diesel Fuel Portions of a Regulated Party's Fuel-Pool Average Carbon-Intensity

* * *

Table 1. LCFS Compliance Schedule for 2010 to 2020 for Gasoline and Fuels Used as a Substitute for Gasoline.

Replace

Year	Carbon Intensity (gCO₂e/MJ)	% Reduction
2010	96.7	0.0
2011	96.5	-0.3
2012	96.2	-0.5
2013	96.0	-0.8
2014	95.5	-1.3
2015	94.5	-2.3
2016	93.1	-3.8
2017	91.4	-5.5
2018	89.6	-7.3
2019	87.9	-9.1
2020 and subsequent years	86.5	-10.5

With

Year	Carbon Intensity (gCO₂e/MJ)	% Reduction
<u>2010</u>	<u>Reporting Only</u>	
<u>2011</u>	<u>95.61</u>	<u>0.25%</u>
<u>2012</u>	<u>95.37</u>	<u>0.5%</u>
<u>2013</u>	<u>94.89</u>	<u>1.0%</u>
<u>2014</u>	<u>94.41</u>	<u>1.5%</u>
<u>2015</u>	<u>93.45</u>	<u>2.5%</u>
<u>2016</u>	<u>92.50</u>	<u>3.5%</u>
<u>2017</u>	<u>91.06</u>	<u>5.0%</u>
<u>2018</u>	<u>89.62</u>	<u>6.5%</u>
<u>2019</u>	<u>88.18</u>	<u>8.0%</u>
<u>2020 and subsequent years</u>	<u>86.27</u>	<u>10.0%</u>

[Commentary: This schedule is still under review and may be adjusted. The 2010 baseline is CARFG with 10% ethanol (E10) derived from corn, where 80% of the ethanol is produced in the Midwest and 20% in California. In the Midwest, 80% corn ethanol is produced via dry milling and 20% via wet milling, dry DGS process. In California, 100% corn ethanol is produced via dry milling, wet DGS process]

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Table 2. LCFS Compliance Schedule for 2010 to 2020 for Diesel Fuel or Fuels Used as a Substitute for Diesel Fuel.

Replace

<u>Year</u>	<u>Carbon Intensity (gCO₂e/MJ)</u>	<u>% Reduction</u>
2010	95.8	0.0
2011	95.6	-0.3
2012	95.3	-0.5
2013	95.1	-0.8
2014	94.6	-1.3
2015	93.6	-2.3
2016	92.0	-4.0
2017	90.5	-5.5
2018	88.9	-7.2
2019	87.6	-8.6
<u>2020 and subsequent years</u>	86.2	-10.0

With

<u>Year</u>	<u>Carbon Intensity (gCO₂e/MJ)</u>	<u>% Reduction</u>
<u>2010</u>	<u>Reporting Only</u>	
<u>2011</u>	<u>94.47</u>	<u>0.25%</u>
<u>2012</u>	<u>94.24</u>	<u>0.5%</u>
<u>2013</u>	<u>93.76</u>	<u>1.0%</u>
<u>2014</u>	<u>93.29</u>	<u>1.5%</u>
<u>2015</u>	<u>92.34</u>	<u>2.5%</u>
<u>2016</u>	<u>91.40</u>	<u>3.5%</u>
<u>2017</u>	<u>89.97</u>	<u>5.0%</u>
<u>2018</u>	<u>88.55</u>	<u>6.5%</u>
<u>2019</u>	<u>87.13</u>	<u>8.0%</u>
<u>2020 and subsequent years</u>	<u>85.24</u>	<u>10.0%</u>

[Commentary: This schedule is still under review and may be adjusted]

Section 95423. Applicable Standards Applied to the Alternative Fuel Portions of a Regulated Party's Fuel-Pool Average Carbon-Intensity for Alternative Fuels

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- (b) *Carbon Intensity Requirements for an Alternative Fuel Other Than a Biomass-Based Diesel Fuel.*
- (1) A regulated party must use the gasoline-standard carbon intensity value in section 95422(b) for its alternative fuel, other than biomass-based diesel fuel, if the alternative fuel is electricity that is used or if the alternative fuel is intended to be used in any single-fuel:
- (A) light-duty vehicle, or
- (B) medium-duty vehicle.
- (2) A regulated party must use the diesel fuel-standard carbon intensity value in section 95422(c) for its alternative fuel, excluding biomass-based diesel, that is used or is intended to be used in any single-fuel application not identified in section 95423(b)(1).

* * *

- (d) *Carbon Intensity Requirements for Transportation Fuels Provided for Use in Multi-Fuel Vehicles (Including Bi-fuel Vehicles).*
- 1 (A) the gasoline-standard carbon intensity value in section 95422(b) if one of the fuels used in the multi-fuel vehicle is gasoline or electricity.

* * *

Section 95424. Compliance Requirements for Regulated Parties

(a) Identification of Regulated Parties.

(1) Regulated Parties for Gasoline.

(A) Initial Designation of Producers and Importers as Regulated Parties.

1. Where Oxygenate Is Added to Downstream CARBOB.

For gasoline consisting of CARBOB and an oxygenate added downstream from the California facility at which the CARBOB was produced or imported, the regulated party is initially the following:

- a. With respect to the CARBOB, the regulated party is the person who produced producer or importer of the CARBOB in California or imported it into California; and
- b. With respect to the oxygenate, the regulated party is the person who owns the oxygenate immediately prior to its being blended into CARBOB to produce finished California gasoline producer or importer of the oxygenate.

2. Where No Separate CARBOB.

For gasoline that does not include CARBOB that had previously been supplied from the facility at which ~~the~~ CARBOB it was produced or imported, the regulated party with respect to for the gasoline is the person who produced the gasoline in California or imported it into California producer or importer of the gasoline.

(B) Effect of Transfer of CARBOB or Gasoline and Compliance Obligation by Regulated Party.

1. Threshold Determination Whether Recipient of CARBOB is a Producer or Importer.

Whenever a person who is the regulated party for CARBOB transfers ownership of the CARBOB, the recipient must notify the transferor whether the recipient is a producer or importer for purposes of this section 95424(a)(1)(B). The recipient is a producer or importer if he or she has produced or imported CARBOB in the preceding 365 days.

2. *Producer or Importer Acquiring CARBOB Becomes the Regulated Party Unless Specified Conditions Are Met.*

Except as provided for in section 95424(a)(1)(C), ~~on each occasion that when~~ a person who is the regulated party for ~~transfers ownership of CARBOB or gasoline before it has been transferred from its “final distribution facility” (as defined in 13 CCR §2260(a)(11))~~, transfers ownership of the CARBOB to a producer or importer, the recipient of ownership of the CARBOB or gasoline (i.e., the transferee) becomes the regulated party for that CARBOB or gasoline it. The transferor shall must provide the recipient a product transfer document that prominently states:

- 1a. the volume and average carbon intensity of the transferred CARBOB ~~or gasoline~~; and
- 2b. the recipient is now the regulated party for the acquired CARBOB ~~or gasoline~~ and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the CARBOB ~~or gasoline~~.

(G) 3. *Transfer of CARBOB or Gasoline to a Producer or Importer and Retaining Compliance Obligation.*

Section 95424(a)(1)(B)2. notwithstanding, ~~the transferor a regulated party transferring ownership of CARBOB to a producer or importer~~ may choose to remain the regulated party and retain the LCFS compliance obligation for the transferred CARBOB ~~or gasoline~~ by ~~written contract with providing~~ the recipient at the time of transfer with a product transfer document that prominently states that the transferor has chosen to remain the regulated party with respect to the CARBOB. ~~The transferor shall provide the recipient with a product transfer document that identifies the volume and average carbon intensity of the transferred CARBOB or gasoline.~~

4. *If Recipient Is Not a Producer or Importer, Regulated Party Transferring CARBOB Remains Regulated Party Unless Specified Conditions Are Met.*

When a person who is the regulated party for CARBOB transfers ownership of the CARBOB to a person who is not a producer or importer, the transferor remains the regulated party unless the conditions of section 95424(a)(1)(B)5. are met.

5. *Conditions Under Which a Non-producer and Non-importer Acquiring Ownership of CARBOB Becomes the Regulated Party.*

A person who is neither a producer nor an importer and who acquires ownership of CARBOB from the regulated party becomes the regulated party for the CARBOB if by the time ownership is transferred the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states:

- a. the volume and average carbon intensity of the transferred CARBOB; and
- b. the recipient is now the regulated party for the acquired CARBOB ~~or gasoline~~ and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the CARBOB.

(C) *Effect of Transfer By Regulated Party of Oxygenate to Be Blended With CARBOB.*

1. *Person Acquiring the Oxygenate Becomes the Regulated Party Unless Specified Conditions Are Met.*

Except as provided in section 95424(a)(1)(C)2., when a person who is the regulated party for oxygenate to be blended with CARBOB transfers ownership of the oxygenate before it has been blended with CARBOB, the recipient of ownership of the oxygenate (i.e., the transferee) becomes the regulated party for it. The transferor must provide the recipient a product transfer document that prominently states:

- a. the volume and carbon intensity of the transferred oxygenate; and
- b. the recipient is now the regulated party for the acquired oxygenate and accordingly is responsible for meeting the requirements of the LCFS with respect to the oxygenate.

2. *Transfer of Oxygenate and Retaining Compliance Obligation.*

Section 95424(a)(1)(C)1. notwithstanding, a regulated party transferring ownership of oxygenate may choose to remain

the regulated party and retain the LCFS compliance obligation for the transferred oxygenate by providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has chosen to remain the regulated party with respect to the oxygenate.

~~(D) No Post-Transfer Modifications To Transferred CARBOB or Gasoline By A Non-Regulated Party.~~

~~No person to whom the gasoline has been transferred may blend into, add anything to, or otherwise modify the gasoline unless that person:~~

- ~~1. has become the regulated party for that gasoline pursuant to section 95424(a)(1)(B). In this case, the regulated party (transferee or recipient) shall be responsible for complying with the LCFS regulation (including responsibility for credits and deficits) for the portion of the finished fuel that the regulated party blended, added, or otherwise modified; or~~
- ~~2. is under a contractual obligation with the regulated party to make the modification as specified in the contract. In this case, the regulated party (transferor) remains responsible for complying with the LCFS regulation for the entire finished fuel, including any portion that is blended, added, or otherwise modified by the recipient.~~

~~The provisions in this part in no way add to, delete from, or otherwise modify the prohibitions and limits on CARBOB blending set forth in 13 CCR §2266.5(f).~~

~~(D) Effect of Transfer by a Regulated Party of Gasoline to be Blended With Additional Oxygenate.~~

~~A person who is the sole regulated party for a batch of gasoline and is transferring ownership of the gasoline to another party that will be combining it with additional oxygenate may transfer his or her obligations as a regulated party if all of the conditions set forth below are met.~~

- ~~1. Blending the additional oxygenate into the gasoline is not prohibited by title 13, California Code of Regulations, section 2262.5(d).~~
- ~~2. By the time ownership is transferred the two parties agree by written contract that the person acquiring ownership accepts~~

the LCFS compliance obligations as a regulated party with respect to the gasoline.

3. The transferor provides the recipient a product transfer document that prominently states:
 - a. the volume and average carbon intensity of the transferred gasoline; and
 - b. the recipient is now the regulated party for the acquired gasoline and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the gasoline.
4. The written contract between the parties includes an agreement that the recipient of the gasoline will be blending additional oxygenate into the gasoline.

(E) Effect of Transfer by a Regulated Party of Oxygenate to be Blended With Gasoline. Where oxygenate is added to gasoline, the regulated party with respect to the oxygenate is initially the producer or importer of the oxygenate. Transfers of the oxygenate are subject to section 95424(a)(1)(C).

(2) *Regulated Party for Diesel Fuel and Diesel Fuel Blends.*

(A) *Initial Designation of Producers and Importers as Regulated Parties.*

1. *Where Biomass-Based Diesel Is Added to Downstream Diesel Fuel.*

For a diesel fuel blend consisting of diesel fuel and biomass-based diesel added downstream from the California facility at which the diesel fuel was produced or imported, the regulated party is initially the following:

- a. With respect to the diesel fuel, the regulated party is the ~~person who produced~~ producer or importer of the diesel fuel in California or imported it into California; and
- b. With respect to the biomass-based diesel, the regulated party is the ~~person who owns the biomass-based diesel immediately prior to its being blended into diesel fuel to produce finished California diesel fuel~~ producer or importer of the biomass-based diesel.

2. *All Other Diesel Fuels.*

For any other diesel fuel that does not fall within section 95424(a)(2)(A)1, the regulated party is the ~~person who produced~~ producer or importer of the diesel fuel in California or imported it into California.

(B) *Effect of Transfer of Diesel Fuel and Diesel Fuel Blends and Compliance Obligation by Regulated Party.*

1. *Threshold Determination Whether Recipient of Diesel Fuel or Diesel Fuel Blend is a Producer or Importer.*

Whenever a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership before it has been transferred from its “final distribution facility” (as defined in 13 CCR §2260(a)(11)), the recipient must notify the transferor whether the recipient is a producer or importer for purposes of this section 95424(a)(2)(B). The recipient is a producer or importer if he or she has produced or imported diesel fuel in the preceding 365 days.

2. *Producer or Importer Acquiring Diesel Fuel or Diesel Fuel Blend Becomes the Regulated Party Unless Specified Conditions Are Met.*

Except as provided for in section 95424(a)(2)(C), ~~on each occasion that~~ when a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership of diesel fuel to a producer or importer before it the diesel fuel or diesel fuel blend has been transferred from its “final distribution facility” (as defined in 13 CCR §2260(a)(11)), the recipient of ownership of the diesel fuel or diesel fuel blend (i.e., the transferee) becomes the regulated party for that diesel fuel or diesel fuel blend it. The transferor shall must provide the recipient a product transfer document that prominently states:

- ~~1~~a. the volume and average carbon intensity of the transferred diesel fuel or diesel fuel blend; and
- ~~2~~b. the recipient is now the regulated party for the acquired diesel fuel or diesel fuel blend and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the diesel fuel blend it.

(G) 3. *Transfer of Diesel Fuel or Diesel Fuel Blend to a Producer or Importer and Retaining Compliance Obligation.*

Section 95424(a)(2)(B)2. notwithstanding, the transferor a regulated party transferring ownership of diesel fuel or diesel fuel blend to a producer or importer may choose to remain the regulated party and retain the LCFS compliance obligation for the transferred diesel fuel or diesel fuel blend by written contract with providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has chosen to remain the regulated party with respect to the diesel fuel or diesel fuel blend. The transferor shall provide the recipient with a product transfer document that identifies the volume and average carbon intensity of the transferred CARBOB or gasoline.

4. *If Recipient Is Not a Producer or Importer, Regulated Party Transferring Diesel Fuel or Diesel Fuel Blend Remains Regulated Party Unless Specified Conditions Are Met.*

When a person who is the regulated party for diesel fuel or a diesel fuel blend transfers ownership of the diesel fuel or diesel fuel blend to a person who is not a producer or importer, the transferor remains the regulated party unless the conditions of section 95424(a)(2)(B)5. are met.

5. *Conditions Under Which a Non-producer and Non-importer Acquiring Ownership of Diesel Fuel or Diesel Fuel Blend Becomes the Regulated Party.*

A person who is neither a producer nor an importer and who acquires ownership of diesel fuel or a diesel fuel blend from the regulated party becomes the regulated party for the diesel fuel or diesel fuel blend if by the time ownership is transferred the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states:

- a. the volume and average carbon intensity of the transferred diesel fuel or diesel fuel blend; and
- b. the recipient is now the regulated party for the acquired diesel fuel or diesel fuel blend and accordingly is responsible for meeting the

requirements of the LCFS regulation with respect to the diesel fuel or diesel fuel blend.

(C) Effect of Transfer By Regulated Party of Biomass-Based Diesel to Be Blended With Diesel Fuel.

1. Person Acquiring the Biomass-based Diesel Becomes the Regulated Party Unless Specified Conditions Are Met.

Except as provided in section 95424(a)(2)(C)2., when a person who is the regulated party for biomass-based diesel to be blended with diesel fuel transfers ownership of the biomass-based diesel before it has been blended with diesel fuel, the recipient of ownership of the biomass-based diesel (i.e., the transferee) becomes the regulated party for it. The transferor must provide the recipient a product transfer document that prominently states:

- a. the volume and carbon intensity of the transferred biomass-based diesel; and
- b. the recipient is now the regulated party for the acquired biomass-based diesel and accordingly is responsible for meeting the requirements of the LCFS with respect to the biomass-based diesel.

2. Transfer of Biomass-based Diesel and Retaining Compliance Obligation.

Section 95424(a)(2)(C)1. notwithstanding, the transferor may choose to remain the regulated party and retain the LCFS compliance obligation for the transferred biomass-based diesel by providing the recipient at the time of transfer with a product transfer document that prominently states that the transferor has chosen to remain the regulated party with respect to the biomass-based diesel.

~~(D) No Post-Transfer Modifications To Transferred Diesel Fuel or Diesel Fuel Blend By A Non-Regulated Party.~~

~~No person to whom diesel fuel or diesel fuel blend has been transferred may blend into, add anything to, or otherwise modify the diesel fuel or diesel fuel blend unless that person:~~

- ~~1. has become the regulated party for that diesel fuel or diesel fuel blend pursuant to section 95424(a)(2)(B). In this case, the regulated party (transferee or recipient) shall be responsible for complying with the LCFS regulation (including responsibility for credits and deficits) for the~~

~~portion of the finished fuel that the regulated party blended, added, or otherwise modified; or~~

- ~~2. is under a contractual obligation with the regulated party to make the modification as specified in the contract. In this case, the regulated party (transferor) remains responsible for complying with the LCFS regulation for the entire finished fuel, including any portion that is blended, added, or otherwise modified by the recipient.~~

~~The provisions in this part in no way add to, delete from, or otherwise modify the prohibitions and limits on diesel fuel blending set forth in 13 CCR §2281 et seq..~~

* * *

(5) Regulated Parties for Natural Gas (Including CNG, LNG, and Biomethane Biogas) and LPG.

~~For natural gas and propane used as a transportation fuel, the regulated party is the person that holds title to the fuel immediately prior to delivery of the fuel to the facility at which the fuel is dispensed to motor vehicles.~~

(A) Designation of Regulated Parties for Fossil CNG and Biogas CNG.

1. Where Biogas CNG is Added to Fossil CNG.

For fuel consisting of a fossil CNG and biogas CNG blend, the regulated party is initially the following:

a. With respect to the fossil CNG, the regulated party is the person that owns the natural gas fueling equipment at the facility at which the fossil CNG and biogas CNG blend is dispensed to motor vehicles for their transportation use; and

b. With respect to the biogas CNG, the regulated party is the producer or importer of the biogas CNG.

2. Where No Biogas CNG is Added to Fossil CNG.

For fuel consisting solely of fossil CNG, the regulated party is the person that owns the natural gas fueling equipment at

the facility at which the fossil CNG is dispensed to motor vehicles for their transportation use.

(B) Designation of Regulated Parties for Fossil LNG and Biogas LNG.

1. Where Biogas LNG is Added to Fossil LNG.

For a fuel consisting of a fossil LNG and biogas LNG blend, the regulated party is initially the following:

- a. With respect to the fossil LNG, the regulated party is the person that owns the fossil LNG when it is transferred to the facility at which the liquefied blend is dispensed to motor vehicles for their transportation use; and
- b. With respect to the biogas, the regulated party is the producer or importer of the biogas.

2. Where No Biogas LNG is Added to Fossil LNG.

For fuel consisting solely of fossil LNG, the regulated party is initially the person that owns the fossil LNG when it is transferred to the facility at which the fossil LNG is dispensed to motor vehicles for their transportation use.

(C) Designation of Regulated Party for Biogas CNG or Biogas LNG Supplied Directly to Vehicles for Transportation Use.

For fuel consisting solely of biogas CNG or biogas LNG that is produced in California and supplied directly to vehicles in California for their transportation use without first being blended into fossil CNG or fossil LNG, the regulated party is initially the producer of the biogas CNG or biogas LNG.

(D) Effect of Transfer of Fuel by Regulated Party.

1. Transferor Remains Regulated Party Unless Conditions Are Met.

When a person who is the regulated party for a fuel specified in section 95424(a)(5)(A), (B), or (C) transfers ownership of the fuel, the transferor remains the regulated party unless the conditions of section 95424(a)(5)(D)2. are met.

2. Conditions Under Which a Person Acquiring Ownership of a Fuel Becomes the Regulated Party.

A person acquiring ownership of a fuel specified in section 95424(a)(5)(A), (B), or (C) from the regulated party becomes the regulated party for that fuel if, by the time ownership is transferred, the two parties agree by written contract that the person acquiring ownership accepts the LCFS compliance obligation as the regulated party. For the transfer of regulated party obligations to be effective, the transferor must also provide the recipient a product transfer document that prominently states:

- a. the volume and average carbon intensity of the transferred fuel; and
- b. the recipient is now the regulated party for the acquired fuel and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the acquired fuel.

(6) Regulated Parties for Electricity.

~~For electricity used as a transportation fuel, the regulated party is the person that supplies electricity to the facility at which it is used to charge vehicles.~~

For electricity used as a transportation fuel, the regulated party is the electricity Load Serving Entity (which includes investor-owned and publicly-owned utilities) or other entity that supplies electricity to the facility at which the electricity is used to charge vehicles. A Load Serving Entity (LSE) and a non-LSE provider of bundled charging infrastructure and other electric transportation services may negotiate a contractual agreement to transfer some or all of the LCFS credits associated with sales of electricity for transportation purposes to the non-LSE provider of bundled charging infrastructure and other electric transportation services.

(7) Regulated Parties for Hydrogen Or A Hydrogen Blend.

~~For hydrogen or a blended fuel containing hydrogen used as a transportation fuel, the regulated party is the hydrogen producer unless the producer and station owner have a written agreement to transfer the responsibility of the regulated party to the station owner.~~

(A) Initial Designation – Regulated Party at Time Finished Fuel is Created.

For a volume of finished fuel consisting of hydrogen or a blend of hydrogen and another fuel (“finished fuel”), the regulated party is the person who owns the finished fuel at the time the blendstocks are blended to make the finished fuel.

(B) Transfer of Ownership and Retention of Compliance Obligation.

Except as provided for in section 95424(a)(6)(C), the transfer of ownership of a finished fuel does not change the regulated party, who shall be the same person initially designated as the regulated party under section 95424(a)(6)(A).

(C) Transfer of Ownership and Transfer of Compliance Obligation.

By written contract, the regulated party set forth in section 95424(a)(6)(A) or (B) may transfer the ownership of the finished fuel along with the LCFS compliance obligation to another person. The recipient of the ownership of the finished fuel (i.e., transferee) becomes the regulated party upon execution of the written contract or transfer of the finished fuel, whichever occurs first. The transferor shall provide the recipient a product transfer document that prominently states:

1. the volume and average carbon intensity of the transferred finished fuel; and
2. the recipient is now the regulated party for the acquired finished fuel and accordingly is responsible for meeting the requirements of the LCFS regulation with respect to the acquired finished fuel.

(D) No Modifications to Transferred Finished Fuel By a Non-Regulated Party.

No person to whom a volume of finished fuel has been transferred may blend into, add anything to, or otherwise modify the finished fuel unless that person:

1. has become the regulated party for that finished fuel pursuant to section 95424(a)(6)(C). In this case, the regulated party (transferee or recipient) shall be responsible for complying with the LCFS regulation (including responsibility for credits and deficits) for the finished fuel that was transferred and the portion that the regulated party blended, added, or otherwise modified; or
2. is under a written contractual obligation with the regulated party to make the modification as specified in the contract. In this case, the regulated party (transferor) remains responsible for complying with the LCFS regulation for the entire volume of finished fuel, including any portion that the recipient blends, adds, or otherwise modifies.

* * *

(c) ~~Compliance and Progress Reporting Requirements.~~

* * *

(c)(3) *Reporting Requirements for Quarterly Progress Reports.* A regulated party must submit a quarterly progress report that meets, at a minimum, the requirements outlined below.

(A) *Quarterly Reporting Requirements for Gasoline and Diesel Fuel.*

1. For each transfer of gasoline or diesel fuel that results in a transfer of the compliance obligation or retention of the compliance obligation by written contract, the regulated party must provide to the Executive Officer the product transfer document and report the applicable information identified in section 94524(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), (a)(4)(C), or (a)(4)(D), whichever applies.
2. The carbon intensity value of each blendstock pursuant to section 95426.
3. The volume of each blendstock (in gal) per compliance period.
4. All Renewable Identification Numbers (RINs) that are retired for facilities in California.

* * *

Table 4. Summary Checklist of Quarterly and Annual Reporting Requirements for LCFS Transportation Fuels. (R = Required, O = Optional)

Parameters to Report	Gasoline & Diesel fuel	CNG, & LNG, LPG	Electricity	Hydrogen Or Hydrogen Blends	Pure Neat Ethanol or Biomass-Based Diesel Fuels
Company or organization name	R	R	R	R	R
Reporting period	R	R	R	R	R
Type of fuel	R	R	R	R	R
Blended fuel (yes/no)	R	R	R	R	R
If yes, number of blendstocks	R	R	n/a	R	R
Type(s) of blendstock	R	R	n/a	R	R
RIN numbers	R	n/a	n/a	n/a	R
Blendstock feedstock	O R	O R	n/a	O R	O R
Feedstock origin	O R	O R	n/a	O R	O R
Production process	O R	O R	O	O R	O R
** The CI from California-modified GREET or Lookup Table (UAFCl _i)	R	R	R	R	R
Amount of each blendstock (MJ)	R	R	n/a	R	R
* The CI of the fuel (AFCI _{compliance})	R	R	R	R	R
Amount of each fuel used as gasoline replacement (MJ)	R	R	R	R	R
Amount of each fuel used as diesel fuel replacement (MJ)	R	R	R	R	R
* Credits/deficits generated per quarter (MT)	R	R	R	R	R
For Annual Reporting (in addition to the items above)					
* Credits/deficits generated per year (MT)	R	R	R	R	R
* Carried-over credits used from the previous year (MT), if any	R	R	R	R	R
* Deficits carried from the previous year (MT), if any	R	R	R	R	R
* Credits acquired from another party (MT), if any	R	R	R	R	R
* Credits sold to another party (MT), if any	R	R	R	R	R
* Credits exported to another program (MT), if any	R	R	R	R	R

* Value will be calculated or stored in the Compliance Tool.

** Value will be calculated by GREET or provided by lookup table.

* * *

Section 95425. LCFS Credits and Deficits

* * *

Table 7-6. . EER Values for Fuels Used in Light- and Medium-Duty, and Heavy-Duty Applications.

Light/Medium-Duty Applications (Fuels used as gasoline replacement)		Heavy-Duty/Off-Road Applications * (Fuels used as diesel replacement)	
Fuel/Vehicle Combination	EER Values Relative to Gasoline	Fuel/Vehicle Combination	EER Values Relative to Diesel
Gasoline (incl. E6 and E10), or E85 (and other ethanol blends)	1.0	Diesel fuel or Biomass-based diesel blends	1.0
CNG / ICEV	1.0	CNG/LNG	0.9 1.0
LPG / ICEV	1.0	LPG / ICEV	1.0
Electricity / BEV	4.0	Electricity / BEV, <u>or</u> PHEV <u>or off-road</u>	2.7
Electricity / PHEV Electricity / BEV, <u>or</u> PHEV	2.4 3.0		
H2 / FCV or ICEV	3.0 2.3	H2 / FCV or ICEV	1.9

* Except natural gas. All light-duty, medium-duty, and heavy-duty applications will use the diesel standard.

(BEV = battery electric vehicle, PHEV=plug-in hybrid electric vehicle, FFV = flex fuel vehicle, FCV = fuel cell vehicle, ICEV = internal combustion engine vehicle)

* * *

Section 95429. Periodic Public Regulation Review

(a)——The Executive Officer ~~will~~ shall conduct a ~~periodic~~ review of the implementation of the LCFS program by January 1, 2012. The Executive Officer shall determine the scope, ~~frequency~~, and content of the ~~periodic~~ review.

* * *

Remove

~~APPENDIX A. Calculation of Energy Economy Ratios (EER)~~

* * *

APPENDIX B. Sample Carbon Intensity Look-up Table

Replace

~~Table B1. Carbon intensity lookup table using Method 1 for corn ethanol.
Default carbon intensity value (labeled XX) to be provided by the Executive Officer.~~

Fuel	Feedstock	Feedstock Origin	Processing Characteristics
Ethanol (XX _{O4})	Corn (XX _{O2})	US Midwest (XX _{O3A})	Dry Mill, Natural Gas Fueling (XX _{O4A})
			Dry Mill, Natural Gas and Biomass Fueling (XX _{O4B})
			Dry Mill, Natural Gas and Coal Fueling (XX _{O4C})
			Dry Mill, Custom Selected Fueling (XX _{O4D})
			Wet Mill, Natural Gas Fueling (XX _{O4E})
			Wet Mill, Natural Gas and Biomass Fueling (XX _{O4F})
			Wet Mill, Natural Gas and Coal Fueling (XX _{O4G})
			Wet Mill, Custom Selected Fueling (XX _{O4H})
		US Other Regions (XX _{O3B})	Dry Mill, Natural Gas Fueling (XX _{O4I})
			Dry Mill, Natural Gas and Biomass Fueling (XX _{O4J})
			Dry Mill, Natural Gas and Coal Fueling (XX _{O4K})
			Dry Mill, Custom Selected Fueling (XX _{O4L})
			Wet Mill, Natural Gas Fueling (XX _{O4M})
			Wet Mill, Natural Gas and Biomass Fueling (XX _{O4N})
			Wet Mill, Natural Gas and Coal Fueling (XX _{O4O})
			Wet Mill, Custom Selected Fueling (XX _{O4P})

* (XX) represents carbon intensity value calculated using California-modified GREET.

For example, if Company Y is a regulated party that sells corn ethanol fuel in compliance with the LCFS regulation. Company Y has documentation that shows the corn ethanol is produced in the U.S. Midwest region using a wet mill, natural gas & biomass-fueled process. From the table above, Company Y will use the carbon intensity value denoted by "XX_{O4E}."

With

Table B1. Carbon intensity lookup table using Method 1

Fuel	Feedstock	CA-GREET CI (gCO ₂ e/MJ)	iLUC ⁽¹⁾	Total
Ethanol	Corn		30	
	Mid-West Average, 80% dry, 20% wet mill, Dry DGS	69.4		99.40
	Mid-West Dry Mill, Dry DGS	68.4		98.40
	Mid-West Wet Mill	75.1		105.10
	Mid-West Dry Mill, Wet DGS	60.1		90.10
	CA Dry Mill, Dry DGS, NG	58.9		88.90
	CA Dry Mill, Wet DGS, NG	50.7		80.70
	Mid-West Dry Mill, Dry DGS, 80% NG, 20% biomass	63.6		93.60
	Mid-West Dry Mill, Wet DGS, 80% NG, 20% biomass	56.8		86.80
	CA Dry Mill, Dry DGS, 80% NG, 20% biomass	54.2		84.20
	CA Dry Mill, Wet DGS, 80% NG, 20% biomass	47.4		77.40
	80% Mid-West, 20% CA Dry mill, Wet DGS	65.66		95.66
	Sugarcane			
	Brazil Sugar Cane	27.40	46	73.40
	Cellulosic			
	Farmed Trees, fermentation	5.38	18	23.38
Agriculture Waste				
Forest Residue	22.20	0	22.20	
Others				
Gasoline	CARBOB ave. crude to CA refineries	95.86		
	CaRFG - 100% Midwest EtOH average	96.09		
	CaRFG - 80% Mid-West, 20% CA Dry mill, Wet DGS	95.85		
Diesel	ULSD ave. crude to CA refineries	94.71		
CNG	CA NG, pipeline CNG	67.9		
	OK/TX NG, pipeline CNG	68.0		
	Canada NG, pipeline CNG	68.0		
	US ave. NG, pipeline CNG	68.0		
	LFG clean up to CNG	11.01		
LNG	RNG LNG Gulf Port TX, pipeline CNG	under review		
	RNG LNG Baja, pipeline CNG	under review		
	Canada NG, pipeline, liquefaction, LNG	under review		
	RNG LNG, Baja, pipeline, liquefaction	under review		
	RNG LNG Baja, LNG	under review		
Electricity	CA Average	124.1	3 ⁽²⁾	41.37 ⁽³⁾
	CA Marginal	104.7		34.9 ⁽³⁾
Biodiesel	Mid West Soybeans to soy oil	26.9		
Ren. Diesel	Mid West Soybeans to soy oil	32.0		
Hydrogen	NG, liquid	133	2.3 ⁽²⁾	57.83 ⁽³⁾
	NG, gaseous, central reforming	142.2		61.83 ⁽³⁾
	NG, gaseous, on-site reforming	98.3		42.74 ⁽³⁾
	NG, (SB 1505 Scenario), gaseous, onsite reforming	76.1		33.09 ⁽³⁾

(1) Assumed iLUC for corn ethanol is 30 gCO₂e/MJ, cellulosic ethanol is 18 gCO₂e/MJ, for sugarcane ethanol is 46 gCO₂e/MJ

(2) Energy Economy Ratio (EER)

(3) Adjusted with EER