

Low Carbon Fuel Standard Workshop: Revisions to the Draft Regulation

December 2, 2008

California Environmental Protection Agency



Air Resources Board



Feedback for Draft Regulation

- **Feedback requested for all sections**
 - Applicability
 - Standards
 - Standards for Alternative Fuels
 - Compliance
 - LCFS credits and deficits
 - Determination of carbon intensity values

- Revisions do not reflect our ongoing review of comments submitted

- **Feedback requested by December 16, 2008**



Structural Changes

New/Renumbered Sections

- Definitions & Acronyms
- Cap & Trade
- Periodic Public Review

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§ 95420. Definitions & Acronyms

Revised Definitions

- **“Non-conventional crude oil”**
 - produced by other than primary, secondary, or tertiary oil recovery
- **“Public access fueling dispenser”**
 - dispenser that is not a private dispenser
- **“Regulated party”**
 - person subject to LCFS under 95424(a)

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§ 95421. Applicability

Clarified by adding 2 specific fuels:

- **Hydrogen blend**
- **>10% ethanol blend**



§ 95422. Standards

Gasoline & Gasoline Substitutes:

- **Carbon Intensity: 89.6 (2018), 87.9 (2019)**
- **Applies LCFS beyond 2020**

Diesel & Diesel Substitutes:

- **Carbon Intensity: 88.9 (2018), 87.6 (2019)**
- **Applies LCFS beyond 2020**



§ 95423. Alternative Fuel Standards

No substantive changes

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§ 95424. Compliance

Gasoline Regulated Parties:

- **Initial Designation**
 - Separate regulated parties for oxygenate and CARBOB portions
- **Transfers**
 - Compliance obligation transfers with ownership of fuel (unchanged from Oct. version)
 - Compliance obligation can be retained by transferor by contract (unchanged from Oct. version)
 - Simplified/consolidated language

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§ 95424. Compliance (cont.)

Diesel Fuel Regulated Parties:

- **Initial Designation**
 - Separate regulated parties for blends with diesel fuel and biomass-based diesel portions
- **Transfers**
 - Compliance obligation transfers with ownership of fuel (unchanged from Oct. version)
 - Compliance obligation can be retained by transferor by contract (unchanged from Oct. version)
 - Simplified/consolidated language

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§ 95424. Compliance (cont.)

Alternative Fuel Regulated Parties:

- **Regulated party for liquid alt. fuels not blended with gasoline or diesel (incl. E100, B100)**
- **Separate regulated parties for blends of liquid alt. fuels and gasoline or diesel (blend is neither gasoline nor diesel fuel)**
 - Reg. party for liq. alt. fuel portion
 - Reg. party for gasoline or diesel portion
 - Same transfer of obligations provision as gasoline & diesel fuel

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§ 95424. Compliance (cont.)

Alternative Fuel Regulated Parties:

- **Natural Gas (CNG, LNG, Biomethane) and LPG**
 - Regulated party is title holder prior to delivery of fuel to fuel-dispensing facility
- **Electricity**
 - Regulated party is supplier of electricity to vehicle-charging facility
- **Hydrogen or Hydrogen Blend**
 - Regulated party is hydrogen producer unless producer-station owner agreement says otherwise

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§ 95424. Compliance (cont.)

Reporting:

- **Retired RINs deleted**
- **Gasoline & Diesel Fuels**
 - Relocated reporting of transfer document
- **Natural Gas and LPG**
 - Combined & simplified (will combine LDV-MDV & HDV reporting)
 - Use separate dispenser meters or show alternative method is equivalent
- **Table 4 Quarterly & Annual Requirements**
 - Added required reporting of generation and transfers of credits and deficits

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§ 95424. Compliance (cont.)

Significant Figures:

- **Carbon intensity – same as Lookup Table**
- **Credits – nearest whole metric ton CO₂-equiv.**
- **Fuel volumes – sliding scale based on volume**
- **Rounding of intermediate calculations**
 - ASTM E29-08 or equivalent practice

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§ 95424. Compliance (cont.)

Recordkeeping and Auditing:

- **Provide requested records within 48 hours or mutually agreed to timeframe**
- **Evidence of physical pathway**
 - Demonstrate by contract or other means the existence of physical pathway by which the fuel is expected to reach California
 - If more than one pathway, identify pathways covering 95% of reg. party's fuel going to CA

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§ 95425. LCFS Credits and Deficits

Energy Economy Ratio (EER)

- **Revised for light-duty and medium-duty BEVs, PHEVs, Hydrogen Vehicles (Fuel Cell, ICE)**

Credit Rollover Cap

- **Maximum 20 percent of current year obligation can be met by previous-year credits**
 - **Goal is to avoid LCFS compliance solely using accumulated credits**

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§ 95426. Determination of Carbon Intensity Values

Method 2 split into Method 2A and 2B

- **Method 2A – for modifying Method 1 with custom variant inputs**
 - **GTAP required for land-use modifiers**
- **Method 2B – for generating new pathway through CA-modified GREET**
 - **GTAP required for land-use modifiers**

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§ 95426. Determination of Carbon Intensity Values (cont.)

Scientific Defensibility Requirement

- Applies to both Method 2A and 2B
- 30 day public review before EO approval
- Clarified that proof of scientific defensibility may rely on, but is not restricted to, publication in peer-reviewed scientific journal

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§ 95426. Determination of Carbon Intensity Values (cont.)

Substantiality Requirement

Method 2A

- Min. 10% lower carbon intensity than Method 1; and
- 10 million gasoline gallon equivalent (gge)
 - Does not apply if all fuel providers for that fuel sell less than 10 million gge annually in CA

Method 2B

- New pathway => substantiality requirement does not apply

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§ 95426. Determination of Carbon Intensity Values (cont.)

Public Disclosure of Patentable LCFS Technology

- **General concepts being considered to account for patentable process, equipment, or technique**
- **Need to balance transparency vs. patent protection**
- **Current concepts focus on disclosure after patent application submitted to U.S. Patent and Trademark Office**

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§ 95427. Multimedia Evaluation

- **No substantive revisions**

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§ 95428. Cap and Trade

- **Placeholder [under development]**



§ 95429. Periodic Public Review

- **Executive Officer to conduct periodic review of LCFS implementation**
- **EO to determine scope, frequency, and content of the review**



Feedback Submission Procedure

- **Comments submitted will be posted online**
- **Submission contacts listed in next slide**
- **Comments must be submitted by:**

December 16, 2008

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