

## Attachment 1

### SECOND 15-DAY MODIFIED REGULATION ORDER

#### EXCERPTS SHOWING MODIFICATIONS BEING MADE AVAILABLE IN CONJUNCTION WITH THE SECOND 15-DAY CHANGE NOTICE

Note: Set forth below are excerpts of the regulation implementing the Low Carbon Fuel Standard showing the modifications being made available August 9, 2012, in conjunction with the Second 15-Day Change Notice. The original regulatory text is shown in plain type. The proposed amendments, released on October 26, 2011, are shown in underline to indicate additions and ~~strike through~~ to show deletions. The proposed modifications released on April 10, 2012, are shown in double underline and ~~double strike through~~ format. The proposed changes subject to comment, as described in this Second 15-Day Change Notice and released on August 9, 2012, modified regulation order, are shown in double underline italics and ~~double strike through italics~~ to indicate additions and deletions, respectively. All other portions of the LCFS regulation remain unchanged and are indicated by the symbol “\* \* \* \* \*” for reference.]

Amend sections 95481, 95484, and 95486, title 17, California Code of Regulations (CCR), to read as follows:

#### Subchapter 10. Climate Change

#### Article 4. Regulations to Achieve Greenhouse Gas Emission Reductions

#### Subarticle 7. Low Carbon Fuel Standard

#### Section 95481. Definitions and Acronyms.

- (a) *Definitions.* For the purposes of sections 95480 through 95489, the definitions in Health and Safety Code sections 39010 through 39060 shall apply, except as otherwise specified in this section, section 95480.1, sections 95480.2 through 95480.5, or sections 95482 through 95489:

\* \* \* \* \*

- (~~3645~~ 50) “Producer” means, with respect to any liquid fuel, the person who owns the liquid fuel when it is supplied from the production facility. “Producer” includes an “out-of-state producer,” which is a producer of a fuel that has its production facility for that fuel located outside California and has opted into the LCFS pursuant to section 95480.3.

(3746 51) "Production facility" means, with respect to any liquid fuel (other than LNG), a facility in California at which the fuel is produced. ~~For an "out of state producer," the production facility is located outside California. The production facility may be located outside California where the Producer has opted into the LCFS pursuant to section 95480.3.~~  
"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.

\* \* \* \* \*

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

## Section 95484. Requirements for Regulated Parties.

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### (eb) Reporting Requirements.

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- (4) *General and Specific Reporting Requirements for Annual Compliance Reports.* A regulated party must submit an annual compliance report that meets, at minimum, the general and specific requirements specified in section 95484(b)(3) above and the additional requirements set forth below:

\* \* \* \* \*

(B) A producer of CARBOB, gasoline, or diesel fuel must report, for each of its refineries, the data listed below:

1. volume (in gal) and marketable crude oil name (MCON) of all crude oil supplied to the refinery in the current compliance period that was produced in California using thermal enhanced oil recovery (TEOR) methods;
2. volume (in gal) and MCON of all crude oil supplied to the refinery in the current compliance period that was produced in California using non-TEOR methods; and
3. volume (in gal), MCON, and Country (or State) of origin for all crude oil supplied to the refinery in the current compliance period that was imported.

- ~~1.~~ MCON designation, volume (in gal), and Country (or State) of origin for each MCON supplied to the refinery during the annual compliance period.
- ~~2.~~ For each MCON identified in paragraph 1. above, the constituent field names and the percentage of the MCON supplied from each field. For each MCON that includes a non-crude diluent, the type of diluent (e.g. natural gas condensate, naphtha, etc.) and the percentage of diluent in the MCON.
- ~~3.~~ For each field identified in paragraph 2. above, the total annual volume produced by the field, the percentage produced using thermally enhanced oil recovery (TEOR), the percentage produced using oil sands mining, and the percentage that is upgraded to synthetic crude oil.

\* \* \* \* \*

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).

## **Section 95486. Determination of Carbon Intensity Values.**

\* \* \* \* \*

### **(b) Method 1 – ARB Lookup Table.**

- (1) To generate carbon intensity values, the Executive Officer ARB uses the California-modified GREET (CA-GREET) model (version 1.8b; (February 2009, updated December 2009)), which is incorporated herein by reference, and a land-use change (LUC) modifier (when applicable). The CA-GREET model is available for downloading on ARB's website at <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm>. CA-GREET, or other model determined by the Executive Officer to be at least equivalent to the CA-GREET, version 1.8b., shall be used by the Executive Officer to generate carbon intensity values.

The Carbon-Intensity Lookup Tables, shown below, specify the carbon intensity values for the enumerated fuel pathways that are described in the following supporting documents, all of which are incorporated herein by reference:

- (A) Stationary Source Division, Air Resources Board  
(February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) from Average Crude Refined in California," Pathway CBOB001;
- (B) Stationary Source Division, Air Resources Board  
(February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for California Reformulated Gasoline (CaRFG)"  
~~Pathways ETHC001, ETHC002, ETHC003, ETHC004, ETHC005, ETHC006, ETHC007, ETHC008, ETHC009, ETHC010, ETHC0011, ETHC0012, ETHC0013;~~
- (C) Stationary Source Division, Air Resources Board  
(February 28, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Ultra Low Sulfur Diesel (ULSD) from Average Crude Refined in California," Pathway ULSD001;
- (D) Stationary Source Division, Air Resources Board  
(February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Corn Ethanol," Pathways ETHC001, ETHC002, ETHC003, ETHC004, ETHC005, ETHC006, ETHC007, ETHC008, ETHC009, ETHC0010, ETHC0011, ETHC0012, ETHC013;
- (E) ~~Stationary Source Division, Air Resources Board  
(February 27, 2009, v.2.1), "Detailed California-Modified GREET Pathway for Brazilian Sugarcane Ethanol," Pathways ETHS001, ETHS002, ETHS003~~ [reserved for future use];

\* \* \* \* \*

- (c) Method 2A – Customized Lookup Table Values (Modified Method 1).

Under Method 2A, the regulated party may propose, for the Executive Officer's written approval pursuant to section 95486(f), modifications to one or more inputs to the CA-GREET model, or modifications to one or more inputs to an alternative model(s) used by the Executive Officer under section 95486(b)(1) ~~used~~ to generate the carbon intensity values in the Method 1 Lookup Table.

\* \* \* \* \*

The Executive Officer may not approve a proposed Method 2A unless the regulated party and its proposed Method 2A meet the scientific defensibility, "5-10" substantiality, and data submittal requirements specified in section 95486(e)(1) through (3) and the following requirements:

- (1) The proposed modified inputs to CA-GREET or other alternative model(s) approved by the Executive Officer pursuant to section 95486(b)(1) ~~inputs~~ must accurately reflect the conditions specific to the regulated party's production and distribution process;

- (2) The proposed Method 2A uses only the inputs that are already incorporated in CA-GREET or other alternative model(s) approved by the Executive Officer pursuant to section 95486(b)(1) and does not add any new inputs (e.g., refinery efficiency); and
- (3) The regulated party must request the Executive Officer to conduct an analysis or modeling to determine the new pathway's impact on total carbon intensity due to indirect effects, including land-use changes, as the Executive Officer deems appropriate. The Executive Officer will use the GTAP Model (February 2009), which is incorporated by reference, or other model determined by the Executive Officer to be at least equivalent to the GTAP Model (February 2009).

(d) *Method 2B – New Pathway Generated by California-Modified GREET (v.1.8b).*

Under Method 2B, the regulated party proposes for the Executive Officer's written approval the generation of a new pathway using ~~the~~ CA-GREET, or, pursuant to Section 95486 (b)(1), an alternative model that has been determined by the Executive Officer to be at least equivalent to CA-GREET, as provided for in this provision. The Executive Officer's approval is subject to the requirements as specified in section 95486(f) and the following requirements:

- (1) For purposes of this provision, "new pathway" means the proposed full fuel-cycle (well-to-wheel) pathway is not already in the ~~ARB~~ Lookup Table specified in section 95486(b)(1), as determined by the Executive Officer;
- (2) The regulated party must demonstrate to the Executive Officer's satisfaction that ~~the~~ CA-GREET can be modified successfully to generate the proposed new pathway. Alternatively, the regulated party may demonstrate to the Executive Officer's written satisfaction that, pursuant to Section 95486 (b)(1), a method that is both compatible and consistent with CA-GREET could successfully be employed to generate the proposed new pathway carbon intensity. If the Executive Officer determines that the CA-GREET model or a proposed alternative model cannot successfully generate the proposed new pathway, the proponent-regulated party must use either Method 1 or Method 2A to determine its fuel's carbon intensity;

\* \* \* \* \*

(C) All applications for LCFS fuel pathway approval certification shall, unless otherwise noted, include the following:

\* \* \* \* \*

5. A copy of the CA-GREET spreadsheet prepared for the life cycle analysis of the proposed fuel pathway. All Method 2A and 2B pathway carbon intensities must be calculated using CA-GREET, version 1.8b unless the Executive Officer has approved the use of a method that is ~~both compatible and consistent with~~ at least equivalent to the calculation methodology used by CA-GREET version 1.8b.

\* \* \* \* \*

NOTE: Authority cited: Sections 38510, 38560, 38560.5, 38571, 38580, 39600, 39601, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975). Reference cited: Sections 38501, 38510, 38560, 38560.5, 38571, 38580, 39000, 39001, 39002, 39003, 39515, 39516, 41510, 41511, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3d 411, 121 Cal.Rptr. 249 (1975).