

State of California  
AIR RESOURCES BOARD

**Second Notice of Public Availability of Modified Text and  
Availability of Additional Documents and Information**

PUBLIC HEARING TO CONSIDER ADOPTION OF A REGULATION TO IMPLEMENT  
THE LOW CARBON FUEL STANDARD

Public Hearing Date: April 23, 2009  
First Public Availability Dates: July 20, 2009 – August 19, 2009  
Second Public Availability Release Date: September 23, 2009  
Deadline for Second Public Comment Period: October 8, 2009

At its April 23, 2009 public hearing, the Air Resources Board (Board or ARB) approved the adoption of the California Code of Regulations (CCR), title 17, sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 94590. The approved sections comprise a regulation for implementing the Low Carbon Fuel Standard (LCFS). The LCFS regulation applies to any transportation fuel, as defined in the regulation, which is sold, supplied, or offered for sale in California, and to any regulated party, as defined in the regulation, which is responsible for a transportation fuel in a calendar year. These sections will be referred to collectively hereinafter as the “LCFS regulation.” The proposed LCFS regulation was described in detail in the Initial Statement of Reasons (ISOR) released to the public on March 5, 2009.

At the hearing on April 23, 2009, the staff presented, and the Board approved, modifications proposed in response to comments received during the public comment period that began on March 5, 2009, and ended at the hearing on April 23, 2009. As a result, on July 20, 2009, the first Notice of Public Availability of Modified Text and Availability of Additional Documents (1st 15-Day Change Notice) was issued. The public comment period for the 1st 15-Day Change Notice ended August 19, 2009.

As a result of comments received, additional modifications to the regulatory text are being proposed in this Second Notice of Public Availability of Modified Text and Additional Documents and Information (2nd 15-Day Change Notice). The text of the modified regulatory language is shown in Attachment 1. The originally proposed regulatory language is shown in plain text. The proposed modifications released on July 20, 2009 are shown in ~~strikethrough~~ to indicate deletions and underline to indicate additions. New deletions and additions to the proposed language that are made public with this 2nd 15-Day Change Notice are shown in ~~double-strikethrough~~ and double underline format, respectively.

## **Summary of Proposed Modifications**

The following is a summary of the proposed substantive modifications to the LCFS regulation and staff's rationale for making them. All references to sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 94590 are to title 17, CCR, unless otherwise noted. The following list does not include modifications to correct typographical and citation errors, numbering errors, grammar errors, or the rearranging of sections and paragraphs for structural improvements, nor does it include minor revisions made to improve clarity.

### **Requirements for Regulated Parties (section 95484(a)(1)(B), (a)(1)(D), and (a)(2)(B))**

The requirements for product transfer documents to include "average carbon intensity" for transferred CARBOB, gasoline, and diesel fuel/fuel blendstock were revised to be consistent with modifications made to section 95486 (Determination of Carbon Intensity Values). The revisions were made to allow the product transfer document to use as the average carbon intensity the Lookup Table value for CARBOB or diesel fuel, whichever applies, when the fuel or blendstock is derived wholly or in part from high carbon-intensity crude oil (HCICO). In the case of gasoline transferred for further blending, the revisions specify that the product transfer document may use the Lookup Table carbon-intensity value for CARBOB for the CARBOB portion of the transferred gasoline.

Provisions were also added to make it clear that, under the specified conditions, the transferor retains the obligation to account for the incremental deficits incurred from use of the HCICO, while the recipient gets the obligation to account for the base deficits incurred from use of the HCICO in the end-of-year credit/deficit balance calculation. The above notwithstanding, the revisions include provisions for the transferor and recipient to agree by written contract as to which party gets the obligation to account for the base and incremental deficits incurred from using HCICO.

### **Reporting Requirements (section 94584(c)(3)(A)1. and 3.)**

Staff modified the language to clarify that the requirement to submit the product transfer document (PTD) to the Executive Officer is only upon request (within 10 business days of a request). Further, the language was modified to allow for the reported volumes of blendstocks to be aggregated for each distinct carbon intensity value. Finally, staff added a requirement for reporting the total energy of a fuel derived from HCICO. This was added for consistency with and to help implement the provisions added to clarify the deficit calculations for HCICO-derived fuels in section 95486(b)(2)(A)2.

### **Demonstration of Physical Pathways (section 95484(d)(2))**

Staff modified the definition of "physical pathway" to clarify that it is the combination of actual fuel delivery methods that a regulated party reasonably expects the fuel to be transported under contract from the fuel producer to the California blender, producer,

importer, or provider. The definition of “material change” was also modified to narrow its focus; as modified, a “material change” to an approved physical pathway would include only those changes that involve a change in the basic mode of transportation for the fuel (e.g., if shipping or trucking replaces any leg in an approved pathway that formerly included only transport by rail). Further, staff extended the deadline for reporting a material change to the Executive Officer from 5 to 30 business days, which should provide ample time for regulated parties to report the change while providing time for ARB staff to flag such a change in the online quarterly reporting. Finally, staff modified the language pertaining to publication of information related to approved pathways on ARB’s website; the modified language would direct the Executive Officer to publish details of each approved physical pathway, subject to the requirements of the California Public Records Act and ARB’s regulations governing the treatment of confidential information.

### **Determination of Carbon Intensity Values (section 95486)**

Staff clarified the language in section 95486(a) (Selection of Method) by adding a provision specifying that a regulated party’s choice of carbon intensity value picked from the Lookup Table is subject to Executive Officer approval. The prior language was ambiguous as to what happens if the Executive Officer disagrees with the regulated party’s choice of carbon intensity value. In cases where the Executive Officer has reason to believe the regulated party did not choose the most appropriate carbon intensity value, the Executive Officer is directed to assign a carbon intensity value from the Lookup Table that the Executive Officer determines is the value that most closely corresponds to the regulated party’s fuel or blendstock pathway. If the Executive Officer chooses to assign a different, more appropriate carbon-intensity value than the one chosen by the regulated party, he/she is directed to provide the rationale for the decision to the regulated party within 10 business days. In reaching this decision, the Executive Officer would be permitted to consider any information submitted by the regulated party in support of its choice of carbon intensity value.

Further, staff added and modified in section 95486(b)(1) several pathways in Tables 6 and 7 (Carbon Intensity Lookup Tables) for “Liquefied Natural Gas” to distinguish current pathways, with carbon intensity resulting from liquefaction with 80% efficiency, from pathways coming online based on 90% liquefaction efficiency. For several of those pathways based on 80% liquefaction efficiency, minor adjustments were made to the carbon intensity values to correct slight calculational or typographical errors.

Moreover, as noted below, staff made several minor modifications to Tables 6 and 7 to reflect updates and corrections to the pathway documents that support the values in the tables or to clarify the pathways that were used to generate several “average” pathways. First, two pathways were added for “Ethanol from Corn” (i.e., “Midwest; Wet Mill, 100% NG” and “Midwest; Wet Mill, 100% coal”) in Table 6. These are not actually new pathways. Rather, they show the pathways that went into the composite carbon intensity for “Midwest; Wet Mill, 60% NG, 40% coal” (75.10) that was shown in the modified regulatory text released with the 1st 15-Day Change Notice. In other words,

multiplying the carbon intensity value for “Midwest; Wet Mill, 100% NG” (64.52) by 0.60 and adding that to the carbon intensity value for “Midwest; Wet Mill, 100% coal” (90.99) multiplied by 0.40 yields the composite value for “Midwest; Wet Mill, 60% NG, 40% coal” (i.e.,  $64.52 \times 0.6 + 90.99 \times 0.4 = 75.10$ ).

Similarly, the modified regulation under the 1st 15-Day Change Notice contained a pathway in Table 7 for renewable diesel made from tallow, which originally reflected the average of energy levels used for rendering (carbon intensity of 29.70). In the modified regulation order covered by this 2nd 15-Day Change Notice, we split that single average pathway into two pathways, one reflecting the higher energy-use level (carbon intensity of 39.33) and the other for the lower energy-use level (carbon intensity of 19.65). Likewise, staff split the biodiesel from waste oil pathway in Table 7 into two pathways, one reflecting processes where “cooking” is required, and the other where “cooking” is not required. Again, these are not new pathways but are rather the pathways that constituted the “average” pathways for biodiesel and renewable diesel presented in the 1st 15-Day Change Notice.

In addition, minor changes were made to the following pathways in Tables 6 and 7 to correct slight calculation errors, rounding errors, and errors that occurred when outputs from the California-modified GREET model were transferred into the applicable supporting pathway documents:

- “Ethanol from Corn” (California; Dry Mill; Wet DGS; 80% NG; 20% Biomass);
- “Ethanol from Sugarcane” (Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit);
- “Electricity” (California marginal electricity mix of natural gas and renewable energy sources); and
- “Hydrogen” (Compressed H<sub>2</sub> from central reforming of NG (includes liquefaction and re-gasification steps).

Finally, staff modified the language in section 95486(b)(2)(A)2. governing the deficit treatment of CARBOB, gasoline or diesel fuel derived from HCICO. The modifications specify the regulated party must perform a calculation for the base deficit (treating the entire volume of fuel as if it were average CARBOB (for gasoline) or average California diesel (for diesel fuel) and using the average carbon intensity values from the Lookup Tables accordingly) and a separate calculation for the incremental deficit. The incremental deficit would charge the volume derived wholly from HCICO with the actual carbon intensity for that HCICO (determined using the specified procedure). As noted previously, the initial regulated party (i.e., the transferor) would retain the obligation to account for the incremental deficits incurred from the HCICO, while the recipient would get the obligation to account for the base deficits (unless the parties agree otherwise by written contract; see modifications to section 95484, “Regulated Parties”).

## **Supporting Documents and Information**

In accordance with Government Code section 11347.1, staff has added the following documents to the rulemaking record in support of the proposed action:

*US DOL-BLS, 2009. United States Department of Labor, Bureau of Labor Statistics. 2007 California Average Weekly Wage Data, BLS Data Series ID ENUO600040010. <http://www.bls.gov/cew/#databases> <last visited August 3, 2009>.*

Also, slightly modified versions of the following pathway supporting documents have been added to the rulemaking record; the modifications made to these documents reflect the corrections to Tables 6 and 7, as noted previously, and show the updated release dates and version numbers:

- Stationary Source Division, Air Resources Board (September 23, 2009, v.2), “Detailed California-Modified GREET Pathways for Liquefied Natural Gas (LNG) from North American and Remote Natural Gas Sources;”
- Stationary Source Division, Air Resources Board (September 23, 2009, v.2), “Detailed California-Modified GREET Pathway for Liquefied Natural Gas (LNG) from Landfill Gas (LFG);”
- Stationary Source Division, Air Resources Board (September 23, 2009, v.2), “Detailed California-Modified GREET Pathway for Liquefied Natural Gas (LNG) from Dairy Digester Biogas;”
- Stationary Source Division, Air Resources Board (September 23, 2009, v.2), “Detailed California-Modified GREET Pathway for Biodiesel from Used Cooking Oil;”
- Stationary Source Division, Air Resources Board (September 23, 2009, v.2), “Detailed California-Modified GREET Pathway for Co-Processed Renewable Diesel from Tallow (U.S. Sourced);” and
- Stationary Source Division, Air Resources Board (September 23, 2009, v.2.3), “Detailed California-Modified GREET Pathways for Brazilian Sugarcane Ethanol: Average Brazilian Ethanol, With Mechanized Harvesting and Electricity Co-product Credit, With Electricity Co-product Credit.”

Finally, it should be noted that the phrase, “produced in California,” was deleted from the titles of the supporting pathway documents for biodiesel and renewable diesel because staff determined that the qualifier was superfluous. However, “co-processed” was added to the title of the renewable-diesel pathway to better reflect the production process described in the document.

## **Availability of the Attachments and Other Materials**

By this notice, the modified regulation and supplemental documents and information added to the rulemaking record and identified above are being made available for public comment prior to the final action by the Board’s Executive Officer. As noted above, the documents listed above as attachments to this notice can be obtained from ARB’s

website at the following address: <http://www.arb.ca.gov/regact/2009/lcfs09/lcfs09.htm>, or from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, California, 95814. If you would like a paper copy of any of these attachments sent to you through postal mail, please call Ms. Manisha Singh at (916) 323-0014 and give your name, company name, if any, and mailing address.

### **Comments and Subsequent Action**

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 94590, title 17, CCR, after making the modified regulatory language available to the public for a supplemental written comment period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of comments received, and shall present the regulations to the Board for further consideration if he determines that this is warranted.

Written comments on the modifications and other supplemental documents must be submitted by postal mail or electronic submittal as follows:

Postal mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Unless otherwise indicated, please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and other search engines.

In order to be considered by the Executive Officer, comments must be directed to ARB in one of the two forms described above and received by ARB by the end of the deadline date for public comment listed at the beginning of this notice. Only comments relating to the modifications to the text of the regulation or to the additional documents and information referenced above shall be considered by the Executive Officer.

For individuals with sensory disabilities, this document and other related material can be made available in Braille, large print, audiocassette, or computer disk. For assistance, please contact the Clerk of the Board at (916) 322-5594 as soon as possible.

We should note that staff intends to release shortly a Third Notice of Public Availability of Modified Text (3rd 15-Day Change Notice). The scope of the 3rd 15-Day Change Notice will be narrowly focused. As such, staff intends the 3rd 15-Day Change Notice to

cover only the carbon intensity values and supporting pathway documents for biodiesel and renewable diesel processed from Midwest soybean, as well as any modifications that staff believes are appropriate in light of comments received pursuant to this 2nd 15-Day Change Notice.

Attachments (1)

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ATTACHMENT 1

Modified Regulation Order

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