

State of California  
AIR RESOURCES BOARD

**ERRATA**

**TITLE 17. CALIFORNIA AIR RESOURCES BOARD**

On July 20, 2009, the Air Resources Board released a "Notice of Public Availability of Modified Text and Availability of Additional Documents" for the proposed Low Carbon Fuel Standard. The deadline for public comment on the modified text and additional documents is August 19, 2009.

**PLEASE BE ADVISED** that Attachment 2, the modified regulation order, to the Notice of Public Availability of Modified Text and Availability of Additional Documents has a few minor errors, as described below. The errors are located on page 44, Table 7 (Carbon Intensity Lookup Table, section 95486(b)(1)) which is posted at the following website: <http://www.arb.ca.gov/regact/2009/lcfs09/lcfs09.htm>.

1. "Total" value for "Renewable Diesel (Conversion of tallow to renewable diesel)" should be "29.70" not "27.70." The direct emissions value of 29.70 is correct, the indirect is 0.0, so the total should be 29.70;

Also in Table 7, there are two extra row lines in the column labeled "Fuel."

2. The first extra line is immediately below "Biodiesel" – the end result is that "Biodiesel" should include the row with the pathway description of "Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters – FAME)."
3. The second extra row line is immediately below "Renewable Diesel" – the end result is that "Renewable Diesel" should include the row with the pathway description of "Conversion of tallow to renewable diesel."

The errata, including the attachment which illustrates the corrections, and the complete notice of public availability of modified text and availability of additional documents are available on ARB's website at the following address:

<http://www.arb.ca.gov/regact/2009/lcfs09/lcfs09.htm>.

Any questions regarding these corrections should be directed to Floyd Vergara, Manager, Industrial Section, at (916) 327-5986 or John Curtis, Manager of the Alternative Fuels Section, at (916) 323-2661.

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.

CALIFORNIA AIR RESOURCES BOARD

/s/

James N. Goldstene  
Executive Officer

Date: August 6, 2009

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs see our website at [www.arb.ca.gov](http://www.arb.ca.gov)*

## ATTACHMENT

The Modified Regulation Order, page 44, Table 7, appeared as follows:

<u>Fuel</u>	<u>Pathway Description</u>	<u>Carbon Intensity Values (gCO<sub>2</sub>e/MJ)</u>		
		<u>Direct Emissions</u>	<u>Land Use or Other Indirect Effect</u>	<u>Total</u>
<u>Diesel</u>	<u>ULSD – based on the average crude oil delivered to California refineries and average California refinery efficiencies</u>	<u>94.71</u>	<u>0</u>	<u>94.71</u>
<u>Biodiesel</u>	<u>Pathways for conversion of Midwest soybeans to biodiesel (fatty acid methyl esters -FAME)</u>	[pending GTAP analysis]		
	<u>Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME)</u>	<u>13.70</u>	<u>0</u>	<u>13.70</u>
<u>Renewable Diesel</u>	<u>Pathways for conversion of Midwest soybeans to renewable diesel</u>	[pending GTAP analysis]		
	<u>Conversion of tallow to renewable diesel</u>	<u>29.70</u>	<u>0</u>	<u>27.70</u>
<u>Compressed Natural Gas</u>	<u>California NG via pipeline; compressed in CA</u>	<u>67.70</u>	<u>0</u>	<u>67.70</u>
	<u>North American NG delivered via pipeline; compressed in CA</u>	<u>68.00</u>	<u>0</u>	<u>68.00</u>
	<u>Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA</u>	<u>11.26</u>	<u>0</u>	<u>11.26</u>
	<u>Dairy Digester Biogas to CNG</u>	<u>13.45</u>	<u>0</u>	<u>13.45</u>
	<u>North American NG delivered via pipeline; liquefied in CA</u>	<u>83.13</u>	<u>0</u>	<u>83.13</u>
<u>Liquefied Natural Gas</u>	<u>Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA</u>	<u>93.37</u>	<u>0</u>	<u>93.37</u>
	<u>Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA</u>	<u>77.50</u>	<u>0</u>	<u>77.50</u>
	<u>Landfill Gas (bio-methane) to LNG liquefied in CA</u>	<u>26.05</u>	<u>0</u>	<u>26.05</u>
	<u>Dairy Digester Biogas to LNG liquefied in CA</u>	<u>28.27</u>	<u>0</u>	<u>28.27</u>
	<u>California average electricity mix</u>	<u>124.10</u>	<u>0</u>	<u>124.10</u>
<u>Electricity</u>	<u>California marginal electricity mix of natural gas and renewable energy sources</u>	<u>104.70</u>	<u>0</u>	<u>104.70</u>
<u>Hydrogen</u>	<u>Compressed H<sub>2</sub> from central reforming of NG (includes liquefaction and re-gasification steps)</u>	<u>142.00</u>	<u>0</u>	<u>142.00</u>
	<u>Liquid H<sub>2</sub> from central reforming of NG</u>	<u>133.00</u>	<u>0</u>	<u>133.00</u>
	<u>Compressed H<sub>2</sub> from central reforming of NG (no liquefaction and re-gasification steps)</u>	<u>98.80</u>	<u>0</u>	<u>98.80</u>
	<u>Compressed H<sub>2</sub> from on-site reforming of NG</u>	<u>98.30</u>	<u>0</u>	<u>98.30</u>
	<u>Compressed H<sub>2</sub> from on-site reforming with renewable feedstocks</u>	<u>76.10</u>	<u>0</u>	<u>76.10</u>

The Modified Text, page 44, Table 7 has been corrected as follows:

<u>Fuel</u>	<u>Pathway Description</u>	<u>Carbon Intensity Values (gCO<sub>2</sub>e/MJ)</u>		
		<u>Direct Emissions</u>	<u>Land Use or Other Indirect Effect</u>	<u>Total</u>
<u>Diesel</u>	<u>ULSD – based on the average crude oil delivered to California refineries and average California refinery efficiencies</u>	<u>94.71</u>	<u>0</u>	<u>94.71</u>
<u>Biodiesel</u>	<u>Pathways for conversion of Midwest soybeans to biodiesel (fatty acid methyl esters -FAME)</u>	[pending GTAP analysis]		
	<u>Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME)</u>	<u>13.70</u>	<u>0</u>	<u>13.70</u>
<u>Renewable Diesel</u>	<u>Pathways for conversion of Midwest soybeans to renewable diesel</u>	[pending GTAP analysis]		
	<u>Conversion of tallow to renewable diesel</u>	<u>29.70</u>	<u>0</u>	<u>29.70</u>
<u>Compressed Natural Gas</u>	<u>California NG via pipeline; compressed in CA</u>	<u>67.70</u>	<u>0</u>	<u>67.70</u>
	<u>North American NG delivered via pipeline; compressed in CA</u>	<u>68.00</u>	<u>0</u>	<u>68.00</u>
	<u>Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA</u>	<u>11.26</u>	<u>0</u>	<u>11.26</u>
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<u>Liquefied Natural Gas</u>	<u>North American NG delivered via pipeline; liquefied in CA</u>	<u>83.13</u>	<u>0</u>	<u>83.13</u>
	<u>Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA</u>	<u>93.37</u>	<u>0</u>	<u>93.37</u>
	<u>Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA</u>	<u>77.50</u>	<u>0</u>	<u>77.50</u>
	<u>Landfill Gas (bio-methane) to LNG liquefied in CA</u>	<u>26.05</u>	<u>0</u>	<u>26.05</u>
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<u>Electricity</u>	<u>California average electricity mix</u>	<u>124.10</u>	<u>0</u>	<u>124.10</u>
	<u>California marginal electricity mix of natural gas and renewable energy sources</u>	<u>104.70</u>	<u>0</u>	<u>104.70</u>
<u>Hydrogen</u>	<u>Compressed H<sub>2</sub> from central reforming of NG (includes liquefaction and re-gasification steps)</u>	<u>142.00</u>	<u>0</u>	<u>142.00</u>
	<u>Liquid H<sub>2</sub> from central reforming of NG</u>	<u>133.00</u>	<u>0</u>	<u>133.00</u>
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	<u>Compressed H<sub>2</sub> from on-site reforming of NG</u>	<u>98.30</u>	<u>0</u>	<u>98.30</u>
	<u>Compressed H<sub>2</sub> from on-site reforming with renewable feedstocks</u>	<u>76.10</u>	<u>0</u>	<u>76.10</u>