State of California
AIR RESOURCES BOARD

ERRATA

TITLE 17. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CARBON INTENSITY LOOKUP TABLES IN THE LOW CARBON FUEL STANDARD REGULATION

By notice dated December 28, 2010, and published in the January 7, 2011, California Regulatory Notice Register, Register No. 1-Z, the Air Resources Board (ARB or Board) provided Notice of Public Hearing to Consider Amendments to the Carbon Intensity Lookup Tables in the Low Carbon Fuel Standard Regulation (Notice). The deadline for public comment on the proposed regulatory amendments and supporting documents is February 24, 2011.

PLEASE BE ADVISED that footnote 8 on page 3 of the Notice is incorrect and the reader should therefore disregard it. In addition, the paragraph on page 3 in which footnote 8 appears should be replaced with the following two paragraphs:

> "As noted, there are three types of proposed CI amendments: (1) ARB initiated pathways, (2) Method 2A submittals, and (3) Method 2B submittals. Staff has developed carbon intensities for various additional fuel pathways – Used Cooking Oil Biodiesel (with and without cooking) and Corn Oil Biodiesel. Staff has also initiated analyses for canola-to-biodiesel and sorghum-to-ethanol pathways, and has posted interim carbon intensity values on the LCFS portal site (http://www.arb.ca.gov/fuels/lcfs/2a2b/2a-2b-apps.htm). Under LCFS Regulatory Advisory 10-04 (http://www.arb.ca.gov/fuels/lcfs/122310lcfs-rep-adv.pdf), regulated parties would be allowed to use the interim carbon intensities posted for these fuel pathways while staff's analysis of their indirect effects is ongoing. When that analysis is complete, staff will pursue a subsequent rulemaking to incorporate these fuel pathways into the Lookup Tables.
>
> In addition, staff has evaluated a number of Method 2A/2B customized CI pathway applications submitted by regulated parties or entities on behalf of regulated parties. The customized CI pathways under consideration include: corn ethanol, mixed feedstock ethanol (e.g., corn-sorghum), sugarcane ethanol processed pursuant to the Caribbean Basin Initiative, and liquefied natural gas. The various corn and mixed-feedstock ethanol pathways differ by process energy input, energy efficiency, production process technology, and co-product mix. Staff will be presenting these fuel pathways for Executive Officer consideration and, if approved, incorporation into the Lookup Tables."

Also, in the Informative Digest of Proposed Action and Policy Statement Overview, the titles of the documents to be incorporated by reference into the regulation contained some minor errors, as described below:

Current Reference Title	Corrected Reference Title
Archer Daniels Midland Company Method 2B Application, November 5, 2010	Archer Daniels Midland Company Method 2B Application Package (November 5, 2010)
POET Method 2A Application, December 16, 2010	POET Method 2A Application Package (December 16, 2010)
Trinidad Bulk Traders LTD Method 2B Application, November 23, 2010	Trinidad Bulk Traders LTD Method 2B Application Package (November 23, 2010)
Green Plains, Lakota Plant Method 2A Application, November 3, 2010	Green Plains Holdings II LLC—Lakota Plant Division Method 2A Application Package, (November 3, 2010)
Green Plains, Central City Plant Method 2A Application, October 20, 2010	Green Plains Central City LLC, Method 2A Application Package (October 20, 2010)
LouisDreyfus Commodities Method 2A Application, December 1, 2010	Louis Dreyfus Commodities, Elkhorn Valley Ethanol LLC Method 2A Application Package (December 1, 2010)
ARB CA-GREET Model Pathway for Biodiesel Produced in the Midwest from Used Cooking Oil, December 14, 2010	Stationary Source Division, Air Resources Board (December 14, 2010)), "Detailed California-Modified GREET Pathway for Biodiesel Produced in the Midwest from Used Cooking Oil and Used in California"
ARB CA-GREET Pathway for the Production of Biodiesel from Corn Oil at Dry Mill Ethanol Plants, December 14, 2010	Stationary Source Division, Air Resources Board (December 14, 2010, v. 1.0), "Detailed California-Modified GREET Pathway for the Production of Biodiesel from Corn Oil at Dry Mill Ethanol Plants"

Finally, Table 7 in the Proposed Regulation Order (ISOR, Appendix A at A-12, 13) and its analog, Table ES-2 in the Staff Report: Initial Statement of Reasons for Proposed Rulemaking (ISOR), have a number of rows that are misplaced in the incorrect fuel categories. These tables should read as follows (for brevity, only corrected Table 7 is shown, but Table ES-2 in the ISOR as corrected would appear identical to Table 7 except that it would be labeled as Table ES-2):

Table 7. Carbon Intensity Lookup Table for Diesel and Fuels that Substitute for Diesel.

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO2e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Diesel	ULSD001	ULSD - based on the average crude oil delivered to California refineries and average California refinery efficiencies	94.71	0	94.71
Biodiesel	BIOD002	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is required	15.84	0	15.84
	BIOD003	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is not required	11.76	0	11.76
	BIOD001	Conversion of Midwest soybeans to biodiesel (fatty acid methyl esters - FAME)	21.25	62	83.25
	BIOD004	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is required. Fuel produced in the Midwest	18.44	0	18.44
	BIOD005	Conversion of waste oils (Used Cooking Oil) to biodiesel (fatty acid methyl esters -FAME) where "cooking" is not required. Fuel produced in the Midwest	13.53	0	13.53
	BIOD007	Conversion of corn oil, extracted from distillers grains prior to the drying process, to biodiesel	5.90	0	5.90
Renewable Diesel	RNWD002	Conversion of tallow to renewable diesel using higher energy use for rendering	39.33	0	39.33
	RNWD003	Conversion of tallow to renewable diesel using lower energy use for rendering	19.65	0	19.65
	RNWD001	Conversion of Midwest soybeans to renewable diesel	20.16	62	82.16
Compressed Natural Gas	CNG001	California NG via pipeline; compressed in CA	67.70	0	67.70
	CNG002	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	CNG003	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	CNG004	Dairy Digester Biogas to CNG	13.45	0	13.45

Fuel	Pathway Identifier	Pathway Description	Carbon Intensity Values (gCO2e/MJ)		
			Direct Emissions	Land Use or Other Indirect Effect	Total
Liquefied Natural Gas	LNG001	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	LNG002	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38
	LNG003	Overseas-sourced LNG delivered as LNG to Baja; re-gasified then re-liquefied in CA using liquefaction with 80% efficiency	93.37	0	93.37
	LNG004	Overseas-sourced LNG delivered as LNG to CA; re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62
	LNG005	Overseas-sourced LNG delivered as LNG to CA; no re-gasification or re-liquefaction in CA	77.50	0	77.50
	LNG006	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	LNG007	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56
	LNG008	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	LNG009	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 90% efficiency	17.78	0	17.78
Electricity	ELC001	California average electricity mix	124.10	0	124.10
	ELC002	California marginal electricity mix of natural gas and renewable energy sources	104.71	0	104.71
Hydrogen	HYGN001	Compressed H2 from central reforming of NG (includes liquefaction and re-gasification steps)	142.20	0	142.20
	HYGN002	Liquid H2 from central reforming of NG	133.00	0	133.00
	HYGN003	Compressed H2 from central reforming of NG (no liquefaction and re-gasification steps)	98.80	0	98.80
	HYGN004	Compressed H2 from on-site reforming of NG	98.30	0	98.30
	HYGN005	Compressed H2 from on-site reforming with renewable feedstocks	76.10	0	76.10

These errata, the complete text of the notice, and the Initial Statement of Reasons are available on ARB's website at the following address: http://www.arb.ca.gov/regact/2011/lcfs11/lcfs11.htm. Any questions regarding these corrections should be directed to John Courtis, 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

James N. Goldstene
Executive Officer

Date: January 7, 2011

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