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January 12, 2011

Mr. Kevin Cleary
California Air Resources Board
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Dear Kevin:

Pursuant to your request, given below is a brief life cycle analysis for our ethanol producing plant in Rancho Cucamonga, CA. This is being submitted as part of our application for a carbon intensity index (CI) to comply with the California Air Pollution Board's Low Carbon Fuel Standard (LCFS).

Parallel Products' Rancho Cucamonga plant which has a capacity of 2,000,000 gallons annually is located in San Bernardino County in S CA. Unlike most other ethanol producing facilities that use corn (or other grains) as their feedstock, Parallel Products is a recycler of beverage (and to a lesser extent food) waste materials. Our Rancho Cucamonga customers ship unsellable, out of date products from as far away as WA state to take advantage of the complete destruction and recycling services that we offer. By way of example, a winery in the Napa area may have pallets, truckloads or box cars of out of date wine that require our services. This product is shipped to our Rancho Cucamonga where it is decased, crushed and the liquid collected for distillation to produce fuel ethanol. Soft drinks are processed likewise and the sugars fermented to ethanol prior to distillation. All packaging and containers are recycled.

The fuel ethanol from the plant is sold to a refiner at the Colton Terminal in Bloomfield, CA.

In order to address the creation of a CI for our process, Appendix 1 was created to show the comparison of our process to that of an ethanol from grain facility. As you will note the processes are similar in that sugars and ethanol are processed in fermentation and distillation equipment but different in that no crop CI components (i.e. indirect land, use or fertilizer or byproducts) are evident.

Table 1 shows the CA-GREET input values that are used to calculate the carbon intensity for the Parallel Products Rancho Cucamonga facility and the default CA-GREET values.

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In creating the CI, which has been calculated to be 71.4, three different calculations were used:

- 1) the CI for transportation of the unsellable products to our facility
- 2) the CI for the ethanol processing cost and
- 3) the CI for the outbound shipment of fuel ethanol to our customer

Each of these used a Midwest corn ethanol plant for the comparison. This is attached as Appendix 2.

Confidential information has been eliminated from the appendices.

If you should need any further input, please advise.

Regards,

Jim Rottman
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Table 1

CA-GREET Model Inputs for Parallel Products Rancho Cucamonga Waste Beverage to Ethanol Facility

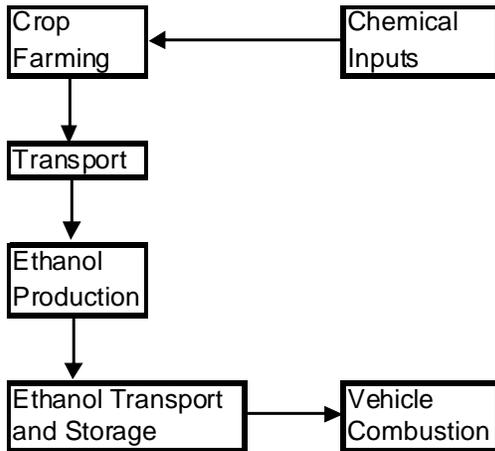
CA-GREET Model Sheet Name	Cell Number	Default Pathway Value	Parallel Products Value	Description
T&D Flowcharts	F1309	10	NA	Feedstock Transportation Distance to Ethanol Plant (miles)
T&D Flowcharts	M1313	40	185 ¹	Feedstock Transportation Distance to Ethanol Plant (miles)
Fuel_Prod_TS	K271	36,000	XXX ²	Plant Total Energy Value (Btu/gal)
Fuel_Prod_TS	L277	36,000	XXX ²	Plant Total Energy Value (Btu/gal)
T&D Flowcharts	F1446	50	10	Transportation Distance from Ethanol Plant to Terminal (miles)
T&D Flowcharts	F1445	70	100	Percent of Miles from Ethanol Plant to Terminal by Truck (%)
Inputs	C247	10.2	XXX ²	Plant Percent Electricity Use (%)

1 - This value is the total for cells F1309 and M1313.

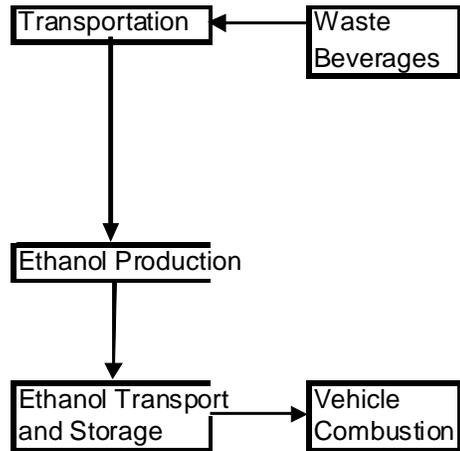
2 – Values have been removed because they have been classified as Confidential Business Information.

Appendix 1

Detailed California-Modified GREET
Pathways for Midwest Corn Ethanol:
Dry Mill Ethanol,
With Mechanized Harvesting



Proposed Pathway for
Fuel Ethanol Derived from
Waste Beverages



Appendix 2

Figure 1. WTW Components for Ethanol Transported to CA

Table B. GHG Emissions Summary for Dry Mill Ethanol

Dry Mill Components	GHG Emissions (gCO ₂ /MJ)
Corn Farming	5.7
Ag Chemicals Production	30.2
Corn Transport (1)	2.2
Ethanol Production	38.3
Ethanol T&D (2)	2.7
Co-Products	-11.5
Total Well-to-Tank	67.6
Total Tank-to-Wheel	0.0
Total Well-to-Wheel	67.6

(1) Corn Transport assumes 50 miles total

(2) Ethanol T&D assumes total transportation to be 34,667 BTU/ MMBTU of which 5252 BTU/ MMBTU is local transportation or 15.1% of the total for 50 miles or 0.41 gCO₂/MJ

GHG Emissions Summary for Beverage Waste Ethanol

	GHG Emissions (gCO ₂ /MJ)
Com Farming	0.0
Ag Chemicals Production	0.0
Com Transport	0.0
Waste Beverage Transportation (2)	8.1
Ethanol Production (3)	63.2
Ethanol T&D (4)	0.1
Co-Products	0.0
Total Well-to-Tank	71.4
Total Tank-to-Wheel	0.0
Total Well-to-Wheel	71.4

(2) 2009 Waste Beverage Shipments to Rancho Cucamonga

	Shipments	Mileage	Average
Colorado, Idaho, Utah	XXX	XXX	XXX
Washington, Oregon	XXX	XXX	XXX
Arizona, Nevada	XXX	XXX	XXX
S CA	XXX	XXX	XXX
N CA	XXX	XXX	XXX
		0.0%	185

Miles are calculated as a delta to a hypothetical landfill site 50 miles from an average mileage to Rancho Cucamonga, CA

185 miles average shipment of inbound waste beverage/ 50 miles distribution in the Corn model X 2.2 gCO₂/MJ = 8.14 gCO₂/MJ

(3) Ethanol production was calculated from the CA GREET model using natural gas and electricity averages for the Rancho Cucamonga plant

(4) 10 miles ethanol distribution from Rancho Cucamonga to the Colton Terminal in Bloomfield, CA / 50 miles distribution in the Corn model X .41 gCO₂/MJ = .08 gCO₂/MJ