



## *Kern Oil & Refining Co.*

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August 18, 2009

Mr. John Courtis  
Air Resources Board  
1001 I Street  
P.O. Box 2815  
Sacramento, CA 95812

SUBJECT: Low Carbon Fuel Regulation – Renewable Diesel from Tallow Pathway  
Comments

Dear Mr. Courtis:

Kern Oil & Refining Co. (Kern) is one of the only two remaining small refiners producing transportation fuels, gasoline and diesel, in California. Kern is the only small refiner producing CARB reformulated gasoline and Ultra Low Sulfur Diesel. It is important to note that Kern is the only refinery between the Bay Area and Los Angeles that is producing gasoline and diesel. Without Kern in the Central Valley, transportation fuels need to be trucked into the San Joaquin Valley from the Bay Area or South Coast. This would create an emissions increase of not only GHG emissions but also of NOx, VOC and PM. In addition, Kern is a less complex refinery than those in the Bay Area and South Coast since Kern does not operate catalytic crackers, hydrocrackers or cokers. Kern also uses less energy than many of the major refineries since Kern's crude feed is light, sweet, and local crude transported to the refinery via pipeline.

Kern is on record with the Board, and continues to advocate for consideration for small refiners. Small refiners are clearly being disproportionately and negatively impacted economically by this new fuel standard. In developing fuel standards in the past, CARB has recognized and thoughtfully considered the significance of the financial impacts to California's small refiners, and CARB has also recognized the important role small refiners provide while stabilizing the market and delivering transportation fuels to rural markets often ignored by the major refiners.

Kern believes the regulatory development process for the LCFS is moving much too quickly and needs to be slowed down. It appears the regulations are being developed before the science is well understood and confirmed. An example of how this regulation

is being “fast-tracked” is apparent from the Board’s adoption of the regulation even though it was incomplete at the time and still a work in progress.

Kern is committed to a continuing dialog with Staff and with the Board in an effort to advocate due fairness to small refiners within this regulatory process. And as follow up to the information presented at the August 5, 2009 public workshop, Kern is providing the following comments for the record.

Kern requests Staff provide all of the data inputs used in establishing the basis for the Renewable Diesel Tallow Pathway. It is not clear how the carbon intensity (CI) for this pathway could have effectively doubled from the prior excel spreadsheet on CARB’s LCFS website. Full transparency of data needs to be provided so stakeholders can properly evaluate the accuracy of the data and the validity of the assumptions used.

Kern agrees with Staff that the Tallow Pathway land-use component should be zero since tallow is generated from a waste product. However, Kern takes issue with the GREET default value for transporting the tallow in railcars to California from the Midwest. Kern recommends another and different default value be considered for tallow produced in California, a potentially significant tallow supply source. Transportation of renewable diesel is also skewed high for small refiners and other biorefiners that may distribute locally. Nearly all of the small refiners fuel products are transported directly to retailers and are not supplied to bulk terminals. In CARB’s calculation, transportation to bulk terminals accounts for approximately 30% of the renewable diesel transport and distribution GHG emissions. Small refiners that distribute products locally should not be disproportionately penalized for the average mix of transportation and distribution that large oil companies operate under.

On Table 1.01, Rendering Energy for Production of Tallow (Ref. Preliminary Draft Distributed for Public Comment, Version 1.0, dated July 20, 2009), Kern requests clarification as to why the thermal and electrical energy for Plants 6 and 7 are nearly double that of Plants 1 through 5. The average of these seven data points are skewed significantly higher by use of the two high data points. These two potential “outliers” appear to be aligned with the Nelson and Schrock data that may allocate all rendering energy to fat and none to meat and bone meal. The four other study reports cited are not only lower than the average energy calculated by CARB, but are lower than each individual plant used in the CARB calculation. Kern also requests further discussion regarding the fact that data used in this analysis is provided by only one biodiesel manufacturer source, rather than multiple tallow manufacturing sources.

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In section 2, Renewable Diesel Production (Ref. Preliminary Draft Distributed for Public Comment, Version 1.0, dated July 20, 2009), it is not clear where the co-process inputs originated for feedstock pre-heating, distillation and hydrotreating. Since there is currently not a single biorefinery in operation in the United States producing renewable diesel as a co-product or stand alone fuel, CARB's energy use data is likely extrapolated from research and development data or from existing petroleum refineries. In either case, the data needs to be further examined and developed to correlate closely with future biorefiners.

In summary, Kern suggests this regulatory process be slowed down so that stakeholders and staff have adequate time for review. Kern requests more transparency and more timely sharing of data and assumptions used to determine GREET defaults and pathway CI values. Kern recommends a GREET default be developed for the transportation component of tallow produced in California. Kern also recommends that CARB further assess energy use and transportation assumptions for biorefineries to match closely with the typical unit processes and geographic areas supplied.

Kern appreciates this opportunity to provide comment, and we are committed to working with Staff throughout this regulatory process.

Sincerely,

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Robert H. Richards  
EHS Manager

cc: Dean Simeroth, Chief Criteria Pollutants Branch  
Renee Littaua, Manager, Fuels Section  
Floyd Vergara, Manager, Industrial Section