



Kern Oil & Refining Co.

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VIA E-MAIL (LCFSWORKSHOP@ARB.CA.GOV)

Anil Prabhu, Manager, Fuels Evaluation Section
California Air Resources Board

Re: Comments on August 7, 2017 Workshop – Pre-Rulemaking Public Meeting to Discuss 2018 LCFS Amendments

Dear Mr. Prabhu:

Kern Oil & Refining Co. (Kern) is providing comments on the California Air Resources Board's (ARB) August 7, 2017, workshop, regarding Low Carbon Fuel Standard (LCFS) 2018 amendments. ARB's presentation highlighted the LCFS 2018 Amendments Pre-Rulemaking Concept Paper (Concept Paper).

Specifically, Kern is providing comments to sections regarding the: (1) Simplified Carbon Intensity Calculator; (2) Alternative Jet Fuel (AJF); and (3) Adding a Third-Party Verification Program.

Simplified Carbon Intensity Calculator

ARB staff is developing new simplified Carbon Intensity (CI) calculators for each Tier 1 fuel type to streamline the application, evaluation, and verification process for Tier 1 fuel pathways. For example, ARB staff has provided draft CI calculators for starch ethanol and sugarcane ethanol biofeed sources. These calculators are designed to provide a fillable form for monthly operational data inputs, which the calculator will automatically convert to the CA-GREET input values needed to determine a CI score. Kern suggests that this type of calculator be made available for co-processors producing Renewable Diesel using conventional feedstocks. The CI calculators were presented in the concept paper as a way to streamline the application process. Kern sees such a calculator would also offer a pathway holder a simplified, transparent, and standardized method of monitoring its CI based on real time operational data and as a tool for annual verification reporting of its CI.

Kern understands that the calculator will need to be customized for each individual co-processor's certified CI. Kern would like to work with ARB staff to assure that the calculator is consistent with data inputs that are easily available to co-processors that meet verification requirements.

Addition of Alternative Jet Fuel as an Opt-In Fuel

As a California-based company that produces Renewable Diesel, Kern understands the benefit for including AJF as part of the LCFS program and would like to show its support in favor of this proposed amendment. Kern agrees that incorporating AJF into the LCFS shows California's interest in addressing a significant source of GHG emissions and may promote increased investment in facilities that are currently producing Renewable Diesel. Kern looks forward to staying engaged as these provisions develop.

Addition of Third-party Verification

ARB is considering supplementing the work of ARB staff with a verification system. ARB notes its extensive experience with analogous systems under MRR and compliance offset protocols for Cap and Trade. Kern urges ARB to utilize not only this experience, but also the data reported and verified through these programs to limit duplicity of verification components. Much of the data that is already submitted through stationary source MRR reporting is utilized in a fuel producer's renewable fuel pathway application. For example, product volumes are verified through MRR annually because of covered product emissions and fuel supplier reporting requirements. Fuel gas flow rates and compositions that are used to determine combustion emissions are verified through MRR. Any data provided for MRR reporting should be acceptable for LCFS verification without further evidence.

Furthermore, Kern urges CARB to consider the incorporation of meter accuracy and calibration requirements consistent with MRR regulations in order to promote consistency and streamlined compliance across different regulatory programs.

Kern agrees with ARB staff that each certified CI is unique and should develop its own validation/verification plan specific to the client and data available. Each validation/verification plan should consider fixing certain values as constants that are difficult to measure or determine with a high degree of certainty (hydrogen use). Also, plans should consider incorporating easily obtained, accurate, measurable, and verifiable data to be included as part of the plan. For example, using the CO-CO₂ mass balance approach to verify yield, a verification/validation plan would specify which parameters require ongoing data as opposed to other inputs that have little variability.

Similarly, sampling requirements to verify certain feedstocks should not be required if the certified CI was calculated using the default GREET input. This will limit the risk of an adverse validation/verification to the CI user as well as eliminate unwarranted additional costs to the user and biofeed producer.

Due to the arduous and extensive time commitment by Kern Staff, required consultants and ARB Staff during the pathway certification process, Kern suggests that the verification frequency of a CI for co-processing of Renewable Diesel using tallow be scheduled biannually.

Kern is concerned that some aspects of the verification process are not sufficiently developed and detailed in the Concept Paper. Kern appreciates that the Concept Paper is intended to

generally introduce ideas intended for amendment. However, additional definition in key areas is needed in order to fully assess the implications a verification program will have on a renewable fuel producer. Examples of these aspects are:

- What feedstocks has Staff identified as “specified source feedstocks” that will require chain-of-custody evidence from the point of origin?
- Is Staff considering any other alternatives to revoking a pathway in the case of a calculated CI that is higher than the certified CI?
- If material misstatements will be defined for each type of reported data, what are the various data types to be defined and when will Staff be announcing these?

Kern encourages ARB to provide additional detailed information on the verification program at earliest convenience because of the potentially significant impacts it could have on a fuel producer.

As always, Kern is committed to working with ARB staff and appreciates the chance to provide comments. Kern has had a longstanding working relationship with ARB and looks forward to staying engaged as this rulemaking process continues. Please do not hesitate to reach out to me at (661) 845-0761 with any questions.

Sincerely,



Christopher Hinds
Environmental Advisor
Kern Oil & Refining Co.